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CIMdata News

Free Webinar on Collaboration Between Aerospace OEM's and their Supply Chain

21 September 2021

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces an upcoming free educational webinar, "Aerospace OEM to Supplier Collaboration: A Look Inside their Future Vision." The webinar will occur on Thursday, 14 October 2021, at 11:00 a.m. (EDT) and will last for one hour.

The Aerospace & Defense PLM Action Group (AD PAG), administered by CIMdata, has been exploring the topic of Global Collaboration since 2017. Initial research focused on identifying those areas of collaboration during product development that would provide the best ROI if improved. The AD PAG's Global Collaboration workgroup is currently developing a future vision of how the data exchange mechanism between the OEM and their suppliers should work.

This webinar will explore some of the problems they want to overcome and their evolving ideas for the future. Industries beyond aerospace, such as automotive and heavy machinery that must deal with their own extensive supply chains, will benefit from the lessons learned and the future vision of the large aerospace players.

Attendees at this webinar will:

- Learn about the different collaboration mechanisms used in aerospace today and their problems.
- Learn how those lessons can apply to your company and dealings with your supply chain.
- Understand the forward-thinking that aerospace engineers have toward collaboration.
- Learn about the step-by-step collaboration process they recommend.

According to Ken Versprille, Ph.D., a CIMdata Executive Consultant and the host for this webinar, "CIMdata has seen major growth in collaboration solutions this past year. The AD PAG task force on Global Collaboration is on the brink of establishing a collective response to their industry's list of requirements for collaboration well into the future."

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.

Product planners and managers, MCAD team leaders, supply chain managers, senior-level MCAD users, product managers, procurement staff, or anyone who wants to learn about the collaboration between an OEM and their supply chain will find this presentation interesting.

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-aerospace-oem-to-supplier-collaboration-a-look-inside-their-future-vision>. To register for this webinar, please visit: <https://register.gotowebinar.com/register/2883410281525056784>.

Siemens: Making the Digital Twin Executable - Predictively Aligning Its Real-World Counterpart - a CIMdata Highlight

23 September 2021

CIMdata Highlight

In a recent briefing to CIMdata, Siemens Digital Industries Software[1] showcased technical innovations that enable customers to create and leverage an executable digital twin (xDT[2]). An xDT is a smart, connected virtual representation of a physical asset, including its behaviors, that senses what is happening to it, applies a simulation or algorithm, and then optimizes and updates itself. It processes sensor information (at the edge or in the cloud) to recognize its environment and then adjusts to those conditions. CIMdata sees this innovation as a milestone in product design, production, and usage, by taking what has, to date, only been a virtual copy of a product's geometry to a working model that can facilitate autonomous adjustments of the product within its actual operating environment and use across its lifecycle.

Physical testing is, in most cases, still integral to making sure simulated virtual models accurately predict what really happens. By having reduced order models adapt to measured data, often in real-time, and then seeing the physical effects with visualization techniques, engineers will be able to make design improvements faster. Siemens provided several examples of how an xDT can deliver feedback that can be used to improve design engineering, manufacturing, and the in-service life of a product.

- For design, users should gain faster system optimization with model-based system testing using ASAM XiL,[3] measure the unmeasurable with smart, virtual sensors, and better leverage product usage and performance data.
- For manufacturing, the technology can be used to help predict production process quality, compensate for gaps in instrumentation with smart, virtual sensors, and de-risk and shorten the commissioning of software and machines. Instructions to the machine (I.e. speed up, slow down, stop, turn) can be executed based on the predictions.
- For service, it provides in-the-field smart, model-enabled predictive maintenance and enables collection and smart data reduction for use in both repair and design. Figure 1 highlights using simulation and test with reduced order modeling to create an xDT and then use it in real time.

In addition to in-operation actuation or adjustment, Siemens described using xDTs also as the way to enable "bringing the real world into product design optimization." They walked through the steps needed to take a product's standard digital twin, create an xDT within Siemens Simcenter, use laboratory test measurements for model adaptations, and then package and deploy the xDT either in the cloud or on edge devices. Siemens' xDT advancement is an important step to making models relevant throughout the entire product lifecycle. CIMdata looks forward to the additional and varied use cases Siemens customers create from this advanced technology innovation.

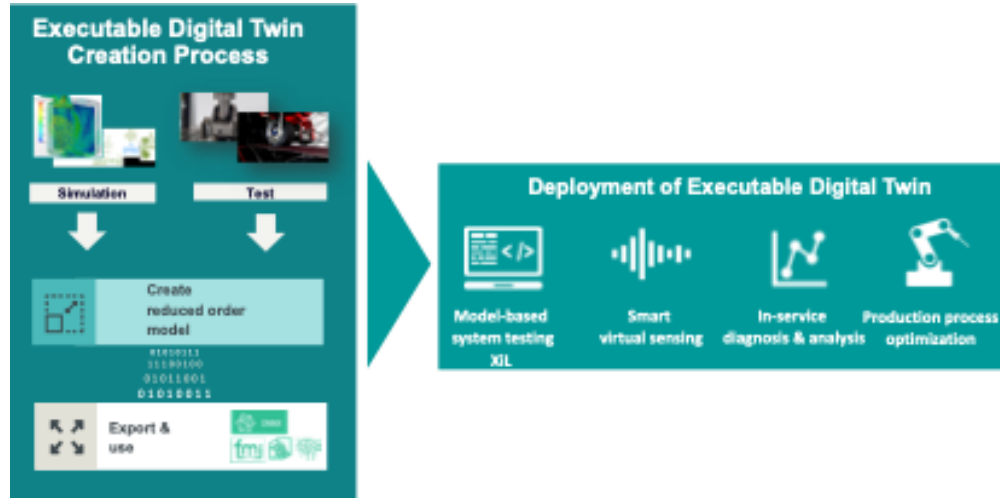


Figure 1—Create and Use an xDT

- [1] Research for this commentary was partially supported by Siemens Digital Industries Software.
- [2] xDT is a CIMdata shorthand convention for Executable Digital Twin.
- [3] ASAM XIL is an API standard for the communication between test automation tools and test benches.

Acquisitions

Accenture to Acquire Experity to Scale its Experience and Commerce Platform Capabilities Across Latin America

20 September 2021

Accenture announced its intent to acquire Experity, a leading provider of cloud-based customer experience and commerce solutions in Brazil. Experity helps businesses build greater efficiencies and agility in commerce, marketing, content and data through leading cloud-based technologies.

Accelerated by the pandemic, Brazil's e-commerce spending has reached historic levels – nearly \$10 billion in the first six months of the year – pushing brands to rapidly reimagine their commerce experience. Marrying Experity's expertise with Accenture Interactive's global scale and capabilities will enhance the company's ability to deliver seamless commerce experiences.

Cristiano Dencker, Accenture Interactive Lead for Latin America, said: "Experity will solidify and scale our market capabilities in driving experience-led transformation. The company will bring strong leadership and expertise with key ecosystem partners, which helps us continue to deliver exemplary services in commerce, marketing, content and data for clients in Latin America."

Founded in 2003 and headquartered in Sao Paulo, Brazil, Experity, which offers consulting, implementation, support and other related services for leading cloud-based platforms, leverages its strategic relationships with ecosystem partners including Adobe, Microsoft, Oracle, Salesforce and SAP to help organizations excel at customer experience throughout the entire brand journey.

Recognized as one of the Best Companies to Work in IT for Brazil for eleven consecutive years, Experity's team of approximately 420 people will join Accenture Interactive in Brazil. The

addition will bring scale and strengthened abilities to seamlessly deliver cloud-based customer experience solutions for leading companies in segments like consumer goods and natural resources.

“Experity is the go-to partner for clients looking for the agility and technology to build leading customer experiences. Joining forces with Accenture Interactive will give us a wider canvas to deliver the transformation that our customers have come to expect in terms of personalized and intelligent experiences anywhere, anytime,” said Daniel Huallem, one of the founders of Experity.

“Consumers across all industries expect personalized and frictionless digital experiences. With the addition of Experity, we will continue to enhance our ability to help our clients grow in ways that are critical to their long-term success,” said Flaviano Faleiro, Accenture Interactive’s president for Growth Markets, which includes Latin America.

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

Company News

About donation of ROHM BNCT Center in Kyoto Prefectural University of Medicine to Kyoto Prefecture

16 September 2021

ROHM Co., Ltd. has completed the donation of the research facility and equipment for "Cancer Treatment Research", to Kyoto Prefecture.

This research facility has been established within Kyoto Prefectural University of Medicine and named the "Kyoto Prefectural University of Medicine ROHM BNCT Center". This facility will be used for research on BNCT* (Boron Neutron Capture Therapy), a next-generation cancer treatment.

Kyoto Prefecture is promoting integrated medical care provision and advanced cancer treatment research from cancer prevention, diagnosis and treatment, and we hope that this center will contribute to these efforts.

Details of the donated facility】

(1)Buildings

- Name: Kyoto Prefectural University of Medicine ROHM BNCT Center
- Scale: Two ground floors, one basement floor
- Area: Approximately 1,500 m²

(2)Equipment

- A set of Neutron irradiator

Altair Names TrueInsight to Altair Channel Partner Program, Expanding Reach in U.S.

21 September 2021

Altair, the global leader converging simulation, HPC, and AI, signed a new channel partner agreement with TrueInsight, based in Sandy, UT. TrueInsight will exclusively offer Altair’s simulation, data analytics, and AI software solutions.

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With deep roots in structural, manufacturing, and electromagnetics analysis, TrueInsight will manage middle market customer relationships end-to-end – from strategic sales to robust technical support.

“We are thrilled to welcome TrueInsight to our channel partner community,” said Jason Napolitano, senior vice president, Americas, Altair. “This partnership will accelerate the growth for both organizations, while offering our customers the solutions and tailored support they need to grow their business.”

Founded by a group of well-known and respected industry veterans with more than 25 years of experience selling to U.S. SMBs, TrueInsight was established after identifying a need to specialize in selling Altair’s best-in-class software and to support Altair customers differently.

“We saw a need to offer dedicated resources to selling the Altair portfolio and providing world-class, customized support for Altair customers,” said Joel Thomas, chief executive officer, TrueInsight. “Our decades of experience selling engineering and validation-based solutions combined with Altair’s best-in-class software solutions will help our customers take their innovations to the next level.”

Archicad users benefit from new, state-of-the-art Graphisoft Community platform

20 September 2021

Graphisoft, the leading Building Information Modeling (BIM) software solution provider for architecture, today announced the launch of Graphisoft Community, merging Archicad Talk and the English-language Help Center into one, easy-to-search resource. The state-of-the-art platform offers fast, efficient support and search functions, and ensures quick feedback from peer users and Graphisoft experts.

A single sign-in using a Graphisoft ID gives instant access to both **Archicad Talk** and the English-language **Help Center** — multi-language support will be rolled out on an ongoing basis. Current users of Archicad Talk are encouraged to migrate their accounts to the new Community portal as quickly as possible to take advantage of the new, streamlined portal — their previous activities and content will move with them. Graphisoft Community also introduces a fresh, engaging approach to knowledge-sharing on the portal through incentives, badges, rankings, challenges, and competitions.

“Graphisoft Community is more than just a rebranding of our existing forums and Help Center,” said Gordana Radonic, Global Community Manager at Graphisoft. “The new portal will make it much easier for Archicad, BIMcloud, and BIMx users to search for solutions to common questions, get quick help from Graphisoft experts, share best practices with peers, and join fun competitions and design challenges,” she added.

“The merge of Archicad Talk and Help Center into one, easy-to-use platform has made the search process so much faster,” said Huseyin Penbeoglu, Architectural Designer at Bimpetus LTD in the UK. “Graphisoft Community helps me stay focused on project deliverables.”

“This was the first full week of the new Graphisoft Community site, and the number of posts is the highest we have ever had — the site is absolutely buzzing with activity!” said Gergely Kmethy, Vice President, Customer Success at Graphisoft. “It's great to see our users taking full advantage of the new portal.”

Building Together Design Challenge — September 6-24

To encourage Archicad users around the world to work on one creative project together, Graphisoft launched the Building Together Design Challenge on September 6. The challenge invites participants to submit their designs using a simple template focused on what the words ‘inside’ and ‘outside’ mean to

them.

Participants are invited to encourage their friends and colleagues to vote for their design — and to submit their own. Graphisoft will reveal a giant architectural puzzle made up of the submitted designs on September 24. The 50 designs with the most votes will win prizes. For more information and to enter the design challenge, visit Building Together Design Challenge on the Graphisoft Community portal.

Atos and Johnson Controls to Partner to Accelerate Journey to Net Zero Buildings

20 September 2021

Atos and Johnson Controls, the global leader for smart, healthy and sustainable buildings, announced a global partnership. Atos and Johnson Controls will help private and public sector customers accelerate their journey to Net Zero by providing a unique set of end-to-end advisory services, digital and other key decarbonization capabilities which aims to help clients formulate and sustainably achieve their Net Zero strategy by reducing their commercial, industrial and office building carbon emissions.

Over the next decade, global greenhouse gas emissions need to be cut by 45 percent to meet the 2015 Paris Agreement goal of containing global warming to 1.5°C. Faced with the climate crisis, governments around the world are introducing new legislation and environmental standards to reach net zero goals. In regions like Europe and the US, decarbonization of buildings is an integral part of the solution as buildings represent some 40 percent of global emissions.

Atos and Johnson Controls plan to leverage each company's leading capabilities to help customers better assess, plan, manage, report and forecast carbon performance of buildings. Atos' Net Zero Transformation portfolio features EcoAct – an Atos company – advisory solutions, such as Digital Decarbonization Assessments (DDA) and Sustainability Strategy development. These services are complemented and activated by Johnson Controls Open Blue Net Zero Buildings portfolio which enables customers to achieve their sustainability strategy and goals that can drive 50 percent and more in improvement in energy efficiency and corresponding carbon emissions.

Additionally, the companies plan to work together to deliver new digital capabilities by bringing together the benefits of Atos' Digital Decarbonization Exchange (DDX) built on the Atos Digital Hub foundation with Johnson Controls' OpenBlue Platform and Net Zero Advisor solution, which will help customers by providing real-time AI enabled monitoring and reporting of sustainability metrics as well as clean energy.

The joint collaboration on data and services will enable clients to gain a detailed initial understanding of their real estate energy usage, and to build a strategy and implementation programme of solutions to target energy reduction in line with their Net Zero ambitions.

“Our customers have a clear and compelling imperative to reduce carbon emissions as part of the global drive to combat climate change, with many striving for decarbonization by 2030,” said **George Oliver, Johnson Controls chairman and CEO**. *“Together, Atos and Johnson Controls bring a powerful set of complementary decarbonization solutions and open technology platforms to help our customers, businesses and others, drive down carbon emissions while creating environments for healthy people, healthy places, and a healthy planet,”* Oliver added.

“Sustainable buildings are vital to bending the emissions trajectory towards zero, both for communities and for companies. In addition to direct cost savings, they can provide incredible environmental and wellness benefits, becoming agents of positive change. The partnership between Johnson Controls and Atos represents a new step towards this collective ambition, making real decarbonization strategies and net zero trajectories,” explained **Elie Girard, Atos CEO**.

Bentley Systems Announces Finalists for the 2021 Going Digital Awards in Infrastructure

20 September 2021

Bentley Systems, Incorporated, the *infrastructure engineering software* company, announced the finalists for the 2021 *Going Digital Awards in Infrastructure*. The annual awards program honors the extraordinary work of Bentley software users advancing infrastructure design, construction, and operations throughout the world. Sixteen independent jury panels selected the 57 finalists from nearly 300 nominations submitted by more than 230 organizations from 45 countries encompassing 19 categories.

Winners of the student *Future Infrastructure Star Challenge* will also be announced. This challenge provided students from around the world a platform to develop a concept or an idea of how they can change the world with infrastructure. Five independent jury panels of Bentley experts selected the Top 10 finalists from 144 project submissions from 61 countries representing different infrastructure domains. Winners will be selected by a panel of Bentley and external expert judges. View the Future Infrastructure Star Challenge finalists.

New this year, all winners will be revealed during keynote presentations on December 2, 2021, as part of the *Year in Infrastructure*. This series of virtual event runs from November 1 through December 2, 2021; see below for highlights.

To watch the *Going Digital Awards in Infrastructure* finalists present their projects in their category on **November 1, 8, 15, and 22**, visit yii.bentley.com. Hear from the people behind these extraordinary infrastructure projects as they tell their stories of leveraging digital advancements to achieve unprecedented outcomes.

The finalists in the 2021 *Going Digital Awards in Infrastructure* are:

Bridges

- **CCCC Third Harbor Engineering Co., Ltd.** – Nanyanjiang Intercity Railway Front-End Engineering Project, Changshu, Jiangsu, China
- **Hatch** – Lathams Road Bridge, Carrum Downs, Victoria, Australia
- **New York State Department of Transportation** – East 138th Street over the Major Deegan Expressway, New York City, New York, United States

Buildings and Campuses

- **Arab Engineering Bureau** – Al Thumama Stadium, Doha, Qatar
- **Center for Industrial Technological Studies and Services No. 33** – CETIS 33 BIM Workshop, Mexico City, Mexico
- **Volgogradnefteproekt, LLC** – High-tech Multifunctional Medical Complex, Yukki, St. Petersburg, Russia

Digital Cities

- **Hubei International Logistics Airport Co., Ltd., Shenzhen S.F. Taisen Holdings (Group) Co., Ltd., Airport Construction Engineering Co., Ltd.** – Ezhou Huahu Airport Project, Ezhou, Hubei, China
- **University of Birmingham** – Implementation of Project and Asset-based CDE, Birmingham, United Kingdom

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Digital Construction

- **Clark Construction Group, LLC** – SeaTac Airport International Arrivals Facility, Seattle, Washington, United States
- **Qitaihe Jianhe Investment and Construction Management Co., Ltd., Heilongjiang Big Data Industrial Development Co., Ltd.** – Taoshan Lake Ecological Water Conservancy Project in Qitaihe City, Qitaihe, Heilongjiang, China
- **Zachry Industrial, Inc., a Zachry Group Company** – Golden Pass LNG Export Project, Sabine Pass, Texas, United States

Geotechnical Engineering

- **China Water Resources Beifang Investigation, Design and Research Co. Ltd.** – Geological Survey of Water Conservancy and Hydropower Engineering, Tibet, China
- **Research Center of Construction - Gersevanov Research Institute of Bases and Underground Structures (NIIOSP)** – Geotechnical Aspects of the Moscow Luzhniki Stadium Reconstruction, Moscow, Russia
- **Royal HaskoningDHV** – Moondrian, Netherlands

Land Site and Development

- **Korea Land and Housing Corporation, BasisSoft, Inc** – BIM Design for the Hanam Gyosan, Hanam-si, Gyeonggi Province, South Korea
- **Liaoning Water Conservancy and Hydropower Survey and Design Research Institute Co., Ltd.** – Dongtaizi Reservoir Project, Chifeng, Inner Mongolia, China
- **Pennoni** – Longwood Garden Overflow Parking, Kennett Square, Pennsylvania, United States

Manufacturing

- **Dow Chemical** – Integration of Advanced Work Packaging (AWP) into Global Project Methodology, Houston, Texas, United States
- **Shenyang Aluminum & Magnesium Engineering & Research Institute Co., Ltd.** – Phase II C5 Plant Digital Twin Application Project of Neusoft Healthcare International Industrial Park, Shenyang, Liaoning, China
- **WISDRI Engineering & Research Incorporation Limited** – Converter-based Continuous Casting Project of Jinnan Steel Phase II Quwo Base Capacity Reduction and Replacement Project, Quwo, Shanxi, China

Mining and Offshore Engineering

- **CNOOC Energy Development Design and R&D Center** – Digital Twin Project of the FPSO Offshore Oil Gathering and Transportation Platform, South China Sea, Guangdong, China
- **Fujian Yongfu Power Engineering Co., Ltd.** – Fujian Changle Zone C Offshore Wind Farm, Changle/Fuzhou, Fujian, China
- **Polyus** – Construction of the Blagodatnoye Mill-5, Krasnoyarsk, Krasnoyarsk Krai, Russia

Power Generation

- **Capital Engineering and Research Incorporation Ltd.** – The World's First 60MW Subcritical Blast Furnace Gas Power Generation Project, Changshu, Jiangsu, China
- **PowerChina ZhongNan Engineering Corporation Limited** – Wuqiangxi Hydroelectric Power

CIMdata PLM Industry Summary

Station Expansion Project, Changsha, Hunan, China

- **Shandong Province Metallurgical Engineering Co., Ltd** – The 2x65MW Surplus Gas Resources Comprehensive Utilization Power Generation Project of Shandong Iron & Steel Group Co., Ltd Laiwu Branch, Jinan, Shandong, China

Project Delivery Information Management

- **Mott MacDonald Systra JV with Balfour Beatty Vinci** – HS2 Phase 1 Main Civil Construction Works, London, United Kingdom
- **Riverlinx CJV** – Silvertown Tunnel Project, London, United Kingdom
- **WSP** – Port of Melbourne - Port Rail Transformation Project, Melbourne, Victoria, Australia

Rail and Transit

- **Network Rail + Jacobs** – Transpennine Route Upgrade (TRU), Manchester/Leeds/York, United Kingdom
- **PT. MRT Jakarta (Perseroda)** – MRT Jakarta Phase II, Jakarta, DKI Jakarta, Indonesia
- **Western Program Alliance** – Level Crossing Removal Project, Melbourne, Victoria, Australia

Reality Modeling

- **HDR** – Diablo Dam Digital Twin Modeling, Whatcom County, Washington, United States
- **La Société Wallonne des Eaux** – Deep Convolutional Neural Network on 3D Reality Mesh for Water Tank Crack Detection, Juprelle, Liège, Belgium
- **Singapore Land Authority** – Advancing Singapore National 3D Reality Mapping for a Changing World, Singapore

Road and Rail Asset Performance

- **Wisconsin Department of Transportation** – Oversize/Overweight Permitting System Improvement Project, Madison, Wisconsin, United States
- **Collins Engineers, Inc.** – Stone Arch Bridge Rehabilitation, Minneapolis, Minnesota, United States
- **Province of Manitoba, Department of Infrastructure** – MB MOOVES - Manitoba Infrastructure SUPERLOAD Upgrade, Winnipeg, Manitoba, Canada

Roads and Highways

- **Larsen and Toubro - Transportation Infrastructure IC** – Mumbai Vadodara Expressway - Package I, Vadodara, Gujarat, India
- **PT. Hutama Karya (Persero)** – Trans Sumatera Toll Road Project Section Serbelawan-Pematangsiantar, Pematangsiantar, Sumatera Utara, Indonesia
- **Sichuan Highway Planning, Survey, Design and Research Institute Ltd., Sichuan Lexi Expressway Co., Ltd.** – Mega Project Le-Xi Expressway, Leshan, Sichuan, China

Structural Engineering

- **Arab Engineering Bureau** – Rosewood Doha, Doha, Qatar
- **HDR** – The Pavilion at Penn Medicine, Philadelphia, Pennsylvania, United States
- **Louis Berger SAS (A WSP Company)** – Detailed Design of Bridges for BG Rail Link between Rishikesh to Karnaprayag (Package -3), Rishikesh and Karnaprayag, Uttarakhand, India

CIMdata PLM Industry Summary

Utilities and Communications

- **Mott MacDonald and National Grid** – London Power Tunnels 2, London, United Kingdom
- **PESTECH International Berhad** – Digitization of Koh Kong 230/22kV Substation, Koh Kong, Cambodia
- **PowerChina Hubei Electric Engineering Co., Ltd.** – Suixian and Guangshui 80MWp Ground-based Photovoltaic Power Project of Hubei Energy Group, Guangshui, Hubei, China

Utilities and Industrial Asset Performance

- **Canadian Energy Company** – Asset Data Lifecycle Program, Fort McMurray, Alberta, Canada
- **Itafos Conda LLC** – Asset Care to Support Long-term Sustainability of a Fertilizer Manufacturing Facility, Soda Springs, Idaho, United States

Water and Wastewater Treatment Plants

- **Brown and Caldwell** – Implementing Digital Twins on a Fully Collaborative Project, Brighton, Colorado, United States
- **Jacobs Engineering** – F. Wayne Hill Water Resources Center Membrane Improvements, Buford, Georgia, United States
- **L&T Construction** – Khatan Group of Villages Water Supply Scheme (Surface Water Treatment), UP, India, Khatan, Uttar Pradesh, India

Water, Wastewater and Stormwater Networks

- **ATLC Infraconsultants Pvt. Ltd.** – Leduki Group of Village Water Supply Scheme, Mirzapur, Uttar Pradesh, India
- **Companhia Águas de Joinville (CAJ)** – Contingency Plan to Ensure Supply in the Event of Drought (Joinville-Santa Catarina), Joinville, Santa Catarina, Brazil
- **Maynilad Water Services Inc.** – Pump Operation Optimization through Hydraulic Modeling Using OpenFlows WaterGEMS, Muntinlupa, Manila, Philippines

Canvas GFX Joins Siemens Digital Industries Software Solution Partner Program as a Software and Technology Partner

15 September 2021

Canvas GFX, Inc., the leading provider of visual communication solutions to the manufacturing and technical industries, announced it will provide a direct connection to Siemens' Xcelerator portfolio, a comprehensive and integrated portfolio of software and services, with its Canvas Envision solution.

Canvas GFX may now offer Canvas Envision customers a direct connection with Siemens Digital Industries Software's Teamcenter® portfolio, the world's most widely used product lifecycle management (PLM) software.

Envision, launched in July this year, is the visual communication and collaboration solution developed to power a new approach to product documentation. It allows everyone from engineers to marketing and sales teams to easily create, share, and collaborate on interactive digital documents that visualize the latest 3D CAD models, optimizing workflows and minimizing delays and stale data issues which can have a measurable economic impact.

“Canvas GFX is excited to join Siemens Digital Industries Software's partner community. The strength of our two organizations working together will deliver significant value to our customers,” said Patricia

Hume, CEO, Canvas GFX.

“We are pleased that Canvas GFX has joined the Siemens Solution Partner Program as a Software & Technology Partner. Canvas Envision provides our customers complementary solutions that add value to their PLM software investment,” Pete Lamoureux, Senior Technical Director and head of Partner Management, Lifecycle Collaborations Services, Siemens Digital Industries Software.

Chemical Product Carbon Footprints: BASF and iPoint Join Forces

16 September 2021

iPoint and BASF are collaborating on the topic of carbon footprint to drive the standardized calculation of product carbon footprints in the chemical industry. Based on BASF's learnings while implementing product carbon transparency for its portfolio, iPoint will offer chemical and process companies powerful tools to collect and report data on their products' specific carbon footprint. Such product-specific data, which can be used and shared across complex value and supply networks, form the basis for Digital Product Passports (DPPs).

iPoint and chemical company BASF are collaborating to offer a software for the standardized calculation of product-related CO₂ emissions. Chemical and process companies can now use the iPoint Product Sustainability life cycle analysis (LCA) software for industry-specific Product Carbon Footprint (PCF) calculations and reports across the whole supply chain, using a standardized way to collect and interpret data based on BASF's methodological expertise. This lays the foundation for a Digital Product Passport as demanded in the "European Green Deal" and the "European Union's Circular Economy Action Plan" for chemical products.

The chemical industry is committed to reaching the goal of carbon neutrality until 2050. In Germany for example, the sector already managed to reduce its emissions by 48 percent from 1990 to 2017. But reaching climate neutrality requires further efforts. Above all, transparency is required as a sound basis for decision-making, making cradle-to-gate PCF data a necessity for the industry. Since existing standards can be interpreted and applied in different ways, BASF has created a proprietary digital solution with a standardized and automated PCF calculation approach specific to its sector and had this solution certified by TÜV Rheinland. To level the playing field in the industry as far as possible, BASF shares this digital solution and its underlying method with IT partners such as iPoint and thus makes it available for all interested industry players.

“iPoint’s extensive experience of over 20 years in providing digital solutions for product sustainability and our ability to support Digital Product Passports, combined with the industry-specific standards established by BASF, means that companies in the chemical and process sector will benefit from a highly reliable and accurate PCF solution that is recognized by one of the industry’s biggest players”, emphasizes Joerg Walden, CEO and founder of iPoint-systems. “We are excited to support the chemical industry on its way to carbon neutrality through this cooperation.”

"By working together with iPoint, we can establish a standardized approach to calculating and reporting PCFs in our industry," states Alessandro Pistillo, Director Digital Strategic Projects at BASF. "Chemical companies can more easily achieve their climate and sustainability goals through transparency regarding their product carbon footprints."

Computer Guidance Corporation Among 2021 Top Construction Tech Firms

23 September 2021

Computer Guidance Corporation, the leading developer of cloud-based ERP solutions for the construction industry, announced its selection among the 2021 Top Construction Technology Firms™ by Construction Executive Magazine. The magazine announced its first-ever Top Construction Technology Firms list as part of a special issue dedicated to construction tech firms responsible for revolutionizing the industry.

Premiering in the magazine's September issue, CE 2021 list of The Top Construction Technology Firms focuses on the leading construction technology solution providers that have helped construction companies to navigate the COVID-19 pandemic, streamline business practices, improve productivity and safety, and increase profitability, paving the way for construction to become synonymous with tech. Computer Guidance Corporation was selected among the list of CE's 2021 The Top Construction Technology Firms featuring in this month's issue of the magazine.

"Stiff competition and a complex, rapidly changing environment has made the construction industry a difficult place to succeed over the past several decades, but when you throw a global pandemic into the mix, you've got unprecedented challenges and no roadmap to follow," said Mike Bihlmeier, President, Computer Guidance Corporation. "In order to succeed, and in many ways, just to move forward, companies had to adapt and innovate, which is where CGC has always led the way in construction enterprise resource planning."

CGC's eCMS delivers an advanced accounting system/ERP with integrated job costing, payroll, core accounting, business intelligence, content management, mobile, purchasing, time and material, bill of material, order processing and human resources applications, all through a single platform. eCMS allows users to view, manage and share real-time, business-critical data tailored to individual needs, enabling each team member to make decisions proactively based on secure access to relevant job information so they can improve future outcomes and effectively manage the bottom-line.

"Computer Guidance Corporation will continue to invest in our solutions portfolio and our personnel and partners to ensure our clients thrive no matter what the state of the environment in which they are asked to perform," continued Bihlmeier. "Digital transformation is at the very core of our business, allowing us to meet the ever-changing and growing needs of our valued clients with ease."

In 2020 and 2021, Computer Guidance Corporation rolled out several web-based features and solutions, including additional business analytics, dynamic business intelligence, content management enhancements and a suite of mobile applications. All the while, the firm stayed current with government and industry standards and regulations, and continued to provide the necessary accounting, HR and payroll enhancements required to support clients with new COVID-19-related administrative processing and reporting activities.

Coreform LLC is fastest-growing CAE company in 2021 Inc. 5000

15 September 2021

Coreform is No. 699 on the annual Inc. 5000 list, the most prestigious ranking of the nation's fastest-growing private companies. The list represents a unique look at the most successful companies within the American economy's most dynamic segment—its independent small businesses. Intuit, Zappos, Under Armour, Microsoft, Patagonia, and many other well-known names gained their first national exposure as honorees on the Inc. 5000.

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Coreform CEO Matt Sederberg responded, “Our team has done an incredible job this last year and they deserve to be recognized for the hard work that led to such outstanding growth. As we adjust to our new normal, our focus will remain on perfecting our unique isogeometric analysis technology so engineers around the world can solve simulation problems that traditional codes can’t handle.”

Not only have the companies on the 2021 Inc. 5000 been very competitive within their markets, but this year’s list also proved especially resilient and flexible given 2020’s unprecedented challenges. Among the 5,000, the average median three-year growth rate soared to 543 percent, and median revenue reached \$11.1 million. Together, those companies added more than 610,000 jobs over the past three years.

Complete results of the Inc. 5000, including company profiles and an interactive database that can be sorted by industry, region, and other criteria, can be found at www.inc.com/inc5000.

“The 2021 Inc. 5000 list feels like one of the most important rosters of companies ever compiled,” says Scott Omelianuk, editor-in-chief of Inc. “Building one of the fastest-growing companies in America in any year is a remarkable achievement. Building one in the crisis we’ve lived through is just plain amazing. This kind of accomplishment comes with hard work, smart pivots, great leadership, and the help of a whole lot of people.”

ESI Group appoints Francis Griffiths as Executive Vice President of Sales

23 September 2021

ESI Group is pleased to announce the appointment of Francis Griffiths as Executive Vice President of Sales, effective October 1st, 2021. He will report to Mike Salari, Corporate COO Revenue Generation, and join the leadership team of Cristel de Rouvray, CEO of the Group. He will be based in the United Kingdom.

Francis Griffiths, 57 years old, is a long-standing executive with more than thirty years of experience in the realms of business and technology. He has a long history of success in the global marketplace with technical and scientific software solutions and has experience with the type of transformation we are driving at ESI. He brings to ESI an impressive track record of growth in Test & Measurement, Simulation and Industrial Automation in various industries including Automotive, Aerospace, Heavy Machinery, Communications, Energy, and Electronics.

From this point onwards, Francis will be entrusted with leading and overseeing the global activities for the company’s sellers and setting the strategy for the sales organization at ESI. He will also be in charge of setting up and driving the transformation of the sales organization in accordance with the objectives of the 3-year plan, the details of which will be announced on October 5th during ESI’s Investor’s conference.

I am extremely excited to join ESI. As a leader in virtual prototyping solutions founded on excellence in predictive physics-based modelling, ESI is uniquely positioned to partner with its customers on their digital transformation journey across the performance product life cycle. I am very confident we can accelerate delivery of ESI solutions that improve productivity, safety, lower production costs and accelerate time to market, answering the key industrial challenges. I look forward to this exciting journey, working with our leadership team, employees and many customers across the world.

Francis Griffiths

ESI Group is undergoing one of its most transformational journeys. Attracting high-level talents like Francis to lead the sales organization will strengthen our market position with a forward-thinking growth strategy. I’m excited that Francis’ valuable experience and expertise will help ESI Group in supporting the digital transformation of our customers and becoming a recognized best-in-class

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company. This is a perfect timing as we will launch our new 3 Year plan (FY22-FY24) which will be announced on October 5th. We are very proud to have him on board!

Mike Salari

Corporate Chief Operating Officer - Revenue Generation of ESI Group

Prior to joining ESI, Francis held several roles within NI for 29 years, among them European Vice President of Sales and Senior Vice President of Global Sales, Field Marketing and Operations. More recently he founded Maiple, a start-up company focusing on Artificial Intelligence and Machine learning solutions in manufacturing and sustainable energy.

Francis holds a BEng (Hons) degree from Cardiff University in Electrical Engineering and is a Fellow of the Institute of Engineering Technology (FIET). He was awarded an Honorary Professorship at Cardiff University in 2019. Francis sits on the advisory board of FLEXIS (Smart Energy Systems Project) and is an advisor on the Cardiff University Strategic Oversight Board. He served as non-executive director of VERV, makers of the Home Energy Assistant.

HCL Technologies Celebrates One Year in Sri Lanka

16 September 2021

HCL Technologies, a leading global technology company, has completed one year of operations in Sri Lanka and recently surpassed a milestone of recruiting more than 1,000 local employees, including recent graduates as well as seasoned industry professionals.

HCL entered Sri Lanka in 2020 with an aim to make it a global delivery hub that works on technology programs for some of the biggest corporations in the world. The company now has a global delivery centre in Orion City, Colombo, and is expanding its footprint to Cinnamon Life, a state-of-the-art office space, in the city.

During its one year of operation in the country, HCL has launched several programs to nurture and attract new talent. For young graduates who have completed three-year or four-year studies in technical and non-technical streams, HCL Sri Lanka offers an opportunity to join the company as software engineers or IT analysts. Earlier this year, the company also launched its early career program HCL TechBee to give A-Level students a head start to pursue their career path in the IT industry and pursue higher education from Horizon Campus, a leading university in Sri Lanka. In addition to programs for new graduates, HCL Sri Lanka continuously hires experienced professionals for roles in digital, applications and infrastructure management and actively engages with talent through a host of online webinars and programs to drive its recruitment efforts.

“We are delighted to celebrate our first year of success in Sri Lanka,” said Apparao VV, Chief Human Resources Officer, HCL Technologies. “We are optimistic about the country’s growth prospects and look forward to bringing in more global opportunities to the local community. Sri Lanka has an extremely talented and world-class pool of IT professionals and we are certain our family here will continue to play an increasing role in serving our Global 2000 clients and partners situated all over the globe.”

“On the first anniversary of our entry in Sri Lanka, we are extremely proud to have more than 1,000 locals working at HCL Sri Lanka,” said Srimathi Shivashankar, Corporate Vice President, HCL Technologies. “HCL is immensely grateful for continued support from the Board of Investment and the Government of Sri Lanka as we strengthen our base in the country.”

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HCL Technologies Selects RISE with SAP, Deepens Strategic Partnership with SAP

23 September 2021

HCL Technologies (HCL) has selected RISE with SAP offering to further modernize its enterprise digital landscape. Additionally, as an SAP strategic partner, HCL will be using this experience to help its clients leverage their combined experience in the industry cloud transformation space.

This expanded partnership will see HCL taking the role of a consumer and global strategic service partner for RISE with SAP.

As a consumer, HCL's enterprise IT will implement RISE with SAP to augment the growing digital transformation demands of its global business. As partners, HCL and SAP will reinforce their strategic commitment to deploy the full stack framework for RISE with SAP along with the #HCLCloudSmart suite of industry cloud solutions to drive cost-effective modernization of business processes for enterprises worldwide. As a truly multifaceted SAP partner, HCL continues to accelerate the customer journey to an intelligent enterprise leveraging the SAP S/4HANA reference architecture.

“RISE with SAP is showing strong adoption momentum. By bringing in their invaluable implementation experience, expertise and solutions, global partners such as HCL will further accelerate this trajectory,” said Christian Klein, CEO, SAP. “Together, we will help our customers thrive on their business transformation journeys.”

“At HCL we have been consistently modernizing our own digital estate to guide our clients through the lens of our own experience and applied innovations on cutting-edge technologies,” said C. Vijayakumar, CEO and Managing Director, HCL Technologies. “Our decision to adopt RISE with SAP is another strategic example of this intent. I am confident that this business transformation journey leveraging RISE with SAP and our arsenal of unique IPs, expertise and solution capabilities will significantly enhance our portfolio and leadership in the digital transformation space.”

SAP and HCL have been working together for more than two decades, supporting the needs of enterprises as they transition critical applications and processes to the cloud. Both companies will collaborate further through joint go-to-market planning that will help customers innovate and move their business-critical elements, features and applications to the cloud.

Hexagon becomes a member of the Responsible Business Alliance to drive sustainable value across its supply chain

22 September 2021

Hexagon AB, a global leader in digital reality solutions, today announced it has joined the Responsible Business Alliance (RBA), the world's largest industry coalition dedicated to corporate social responsibility in global supply chains. The RBA and its initiatives include more than 400 members, with combined annual revenues of greater than \$7.7 trillion, driving sustainable value for workers, the environment and businesses.

Hexagon is committed to ensuring its supply chain conducts business and operations in a sustainable and ethical manner, respecting the planet and its people. Hexagon will drive sustainable value across its supply chain and internal operations through RBA standards, policies, risk assessment platforms, audit tools, e-learning, and more. The membership is an important step towards reaching Hexagon's goal of conducting sustainability supplier audits on 100 percent of direct suppliers in risk areas by 2023.

“Building sustainable practices across our operations and supply chain reduces risks, strengthens relationships and ultimately creates value for Hexagon and our customers. As a global company with

operations in more than 50 countries, we have the opportunity and responsibility to drive real change by upholding the highest standards in all business areas. By joining the RBA, we will work together with some of the world's leading companies to improve working and environmental conditions across the world", said Hexagon President and CEO **Ola Rollén**.

Hexagon fully supports the vision and goals of the RBA. In addition, Hexagon is committed to progressively align its operations with the provisions of the RBA Code of Conduct and to support and encourage its first-tier suppliers to do the same.

iBASEt Completes Manufacturing Think Tank Series

22 September 2021

iBASEt, the company that simplifies how complex products are built and maintained, announced the completion of a think tank series with Frost & Sullivan. The discussion brought together industry experts to gain insights on successfully achieving a digital transformation across manufacturing operations.

The findings from the think tank discussion were the basis for three published reports:

- *“Digital Persistence: The Path to Digital MRO”*
- *“Achieving the Promise of an MES”*
- *“Becoming a Digital Enterprise Starts with a Digital Thread”*

“Digital Persistence: The Path to Digital MRO,” brought together representatives from Lockheed Martin, FRC East, and Magellan Aerospace. The research identified that while digital adoption has been slow in the Maintenance, Repair, and Overhaul industry, enterprises now recognize the value of new digital tools and processes. The limits of paper-based operations became acutely understood during the pandemic, which placed big pressure to utilize remote working.

“Achieving the Promise of an MES” was based on a discussion with experts from Pratt & Whitney and Northrop Grumman. The report validated the business value of implementing an MES while pointing to what can be done to overcome the typical challenges with such a project.

“Becoming a Digital Enterprise Starts with a Digital Thread” combined executives from Lockheed Martin, Northrop Grumman, and Raytheon Technologies to explain their vision of becoming a model-based enterprise, which starts with a digital thread. A maturity curve became apparent reflecting each organization's progress on digitalizing their operations and the value of connecting and sharing data as part of an Industry 4.0 strategy.

“We're delighted to have teamed up with Frost & Sullivan to share our vision for the future of manufacturing,” said Tom Hennessey, CMO, iBASEt. “The findings published in these reports should help both large enterprise and mid-sized manufacturers who build complex, highly engineered products in addressing the challenges of how to migrate over to completely digital operations. These challenges are increasingly becoming more manageable, and can be accomplished today with fewer resources and budget.”

iBASEt is committed to helping shape the future of the digital, model-based enterprise. This research project is one of several future forums and reports that will be shared – coupled with the company's model-based practice, to help mid-sized and large enterprise manufacturers further advance their digital journeys.

“MES is the layer that ultimately all of these IoT devices are going to be mostly interacting with,” suggested Erwin Balmater, Solution Architect at Northrop Grumman, as shared in the research report, *Achieving the Promise of a Manufacturing Execution System*.

Infosys to Develop Quantum Computing Capabilities on AWS

22 September 2021

Infosys, a global leader in next-generation digital services and consulting, announced a strategic collaboration with Amazon Web Services (AWS) to develop quantum computing capabilities and use cases. Infosys will use Amazon Braket to explore and build multiple use cases in quantum computing as part of Infosys Cobalt cloud offerings. Amazon Braket is a fully managed quantum computing service that helps scientists and developers get started with the technology and accelerate research and discovery.

Infosys will look to build, test, and evaluate quantum applications on circuit simulators and quantum hardware technologies using Amazon Braket. This will enable researchers and developers to experiment and study complex computational problems as quantum technologies continue to evolve. Enterprises will get access to use cases for rapid experimentation and can explore how quantum computing can potentially help them in the future in a variety of areas, assess new ideas and plan adoption strategies to drive innovation. The use of Amazon Braket by Infosys aims at getting businesses ready for a future where quantum computers will impact business.

The Infosys Center for Emerging Technology Solutions (iCETS), which focuses on the incubation of next-generation services and offerings, is using Amazon Braket to develop quantum computing use cases in vehicle route optimization, fraud detection, and more. Infosys is also exploring partnership opportunities with startups in the quantum computing space through the Infosys Innovation Network (IIN). This collaboration further bolsters Infosys Cobalt, a set of services, solutions, and platforms for enterprises to accelerate their cloud journey. It offers 14,000 cloud assets and over 200 industry cloud solution blueprints.

Ravi Kumar S, President, Infosys, said, “Infosys continues to be at the forefront of exploring and bringing new technologies to clients. Through our use of AWS in this space, we are bringing together the power of Amazon Braket and Infosys Cobalt to help enterprises build quantum computing capabilities and use cases to accelerate their cloud-powered transformation. We are exploring a variety of use cases from the logistics, finance, energy, and telecom sectors that can help clients evaluate future benefits and value that quantum computing could bring to their business. Enterprises can look forward to solving their various complex computational challenges with Infosys Cobalt and Amazon Braket.”

Matt Garman, Senior Vice President of Sales & Marketing at Amazon Web Services, Inc, said, “Quantum Computing is an area of intense research, and a number of businesses around the world are asking about its timeline and the opportunities that it could open. At this stage, it’s important to be aware and evaluate the potential future impact of quantum computing. Infosys, a long-standing for AWS Premier Consulting Partner, has experience in incubating emerging technology solutions. We see this collaboration as an important step towards setting the right expectations when discussing business problems with customers where quantum computing could have a role.”

iOFFICE + SpaceIQ announces strategic investment by Autodesk

21 September 2021

iOFFICE + SpaceIQ, a leader in the digital transformation of workplace and asset management, announced a strategic investment by Autodesk, a global technology leader spanning architecture, engineering, construction, product design, manufacturing, and media and entertainment. The investment, which follows the recent combination of iOFFICE + SpaceIQ, will provide integrated solutions that give businesses unequalled ability to analyze and optimize all aspects of their real estate and mission-critical assets. Terms of the investment were not disclosed.

The pandemic has heightened focus on maximizing value and increasing efficiency of facilities, with executives reporting cost reduction as their top real estate priority in a recent survey by analyst firm Verdantix. However, occupancy and operations workflows are often fragmented, making it difficult to leverage data from siloed systems. Autodesk's Building Information Modeling (BIM) expertise will help address these challenges by enabling comprehensive visibility needed to strategically plan and manage physical resources during operations.

"Combining design, operational and performance data and workflows in a single platform to improve the comfort, safety and efficiency of building assets has never been more important," said Nick Stefanidakis, General Manager, Archibus, an iOFFICE + SpaceIQ product. "The strategic investment from Autodesk allows us to deliver the solutions organizations need to meet this demand."

iOFFICE + SpaceIQ represents the industry's most comprehensive solutions portfolio for integrated workplace and enterprise asset management platforms. More than 10,000 customers worldwide leverage these tools to manage more than 2 billion square feet of space valued at more than \$64B. The company's platforms, including widely deployed IWMS Archibus, help 170,000-plus maintenance technicians respond to 1.3M work orders a month. The Archibus platform was one of Autodesk's first developer partners, and this investment expands the combined capabilities to increase collaboration and scalability.

"Users of both Archibus and Autodesk products will see value in a tighter integration of BIM-based design and construction data with operations insights and workflows to optimize facility performance, comfort and sustainability," Stefanidakis said. "Owners and occupiers can leverage these operational data to make better, more informed, design and construction choices."

Autodesk has been a globally recognized leader in BIM design, engineering, and construction solutions for nearly thirty years and recently brought BIM to the world of digital twins, including the launch of Autodesk Tandem™ and the acquisition of Innovyz®. Autodesk views this investment as another strategic step in the company's efforts to bring BIM, and digital twin technologies, to the full project lifecycle from design through operations and maintenance.

"BIM is at the core of Autodesk's AEC business and serves as the foundation of the digital transformation now underway in the building industry from design through operations," added Nicolas Mangon, Vice President, Architecture, Engineering and Construction Industry Strategy at Autodesk. "Owners and operators play an increasingly significant role in combatting climate change through improved building efficiency and creating flexible and resilient workplaces when working conditions suddenly change. Our investment in iOFFICE + SpaceIQ recognizes the importance of giving them the tools they need to meet these challenges."

Autodesk and iOFFICE + SpaceIQ currently offer integrations between Autodesk Revit® and AutoCAD® and Archibus with plans for future integrations with the Autodesk Construction Cloud® and Autodesk's Forge® platform. Customers, including global housing and construction provider Daiwa House, have already leveraged the existing integration to benefit their businesses.

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“Daiwa House has developed a strategy for creating and managing building data so that building owners can make more data-driven decisions while reducing the guesswork of operations and maintenance,” said Takaaki Miyuchi, Senior Manager, Construction Digital Promotion Department at Daiwa House. “Archibus and Autodesk’s BIM-related products have been at the center of our strategy to bring the project model and asset operations together. The investment Autodesk is making in iOFFICE + SpaceIQ will fully bring BIM to building operations, which is so important to the digital transformation of building operations and the future of the built world.”

NTT DATA Joins the Green Software Foundation as a Steering Member

16 September 2021

NTT DATA, a global digital business and IT services leader, joined the Green Software Foundation, an organization devoted to reducing CO2 emissions caused by software, as a Steering Member. NTT DATA strives to formulate and promote global standards on software and system development that address climate change by working toward carbon neutrality.

NTT DATA's Green Innovation Activities

NTT DATA has developed its "NTT DATA Carbon-Neutral Vision 2050" as part of its efforts to ensure that society will achieve carbon neutrality. Through the advancement of "Green Innovation," NTT DATA will contribute to efforts seeking to realize carbon neutrality for society, not just for NTT DATA, via the utilization of digital technologies and joint development with its clients.

Joining the Green Software Foundation*¹

As a measure to further advance Green Innovation, NTT DATA joined the Green Software Foundation as a Steering Member on September 16, 2021.

The Green Software Foundation is a non-profit organization jointly founded in May 2021 by the Linux Foundation, in collaboration with four companies: Accenture, GitHub, Microsoft, and Thoughtworks. This organization has set as its goal "a 45% reduction in greenhouse gas emissions in the ICT industry by 2030," a benchmark set via the Paris Agreement, and is working to achieve its mission of establishing the development standards and development tool best practices necessary to reduce CO2 emissions caused by software (green software development) and disseminating these standards and tools throughout the industry.

Future Initiatives

"By joining the Green Software Foundation, we believe we will be able to apply our leading R&D efforts and system development expertise to working group discussions to enhance the formulation of green specifications for globally standard software," said Yo Honma, Representative Director, President and Chief Executive Officer, NTT DATA. "Furthermore, we will assertively propose, and take the lead on, developing mechanisms for calculating CO2 emissions volumes produced by software development."

"Joining this organization allows us to enhance our impact toward development of a sustainable society and contribute to achieving the carbon neutrality goals set in NTT DATA's Carbon-Neutral Vision 2050. The results we realize through these activities will not only help reduce environmental burdens caused during operation of client environments, but they will also benefit society through social infrastructure applications."

OpenText and Lakehead University partner to create internships for Indigenous students

24 September 2021

OpenText™ and Lakehead University announced a new program that will create internship opportunities for Indigenous students enrolled at the University.

As part of the new partnership between OpenText and Lakehead University, up to 25 full-time summer internships will be created for Indigenous students studying at Lakehead's Thunder Bay and Orillia campuses through the OpenText Indigenous Internship Program.

The four-month internships will allow students to intern remotely at OpenText in the software engineering, marketing, finance, information technology, and human resources departments, where they will gain valuable soft and technical skills, confidence and knowledge that will better prepare them to enter the workforce.

These internships will include in-depth onboarding activities, engagement with OpenText leadership, mentorships with established OpenText affinity groups, and career planning and financial planning training sessions.

“OpenText believes a critical action Corporate Canada must take in removing barriers for Indigenous students, is to create jobs,” said Mark J. Barrenechea, CEO & CTO, OpenText. “Through this exciting partnership with Lakehead University, OpenText will create a next-generation internship program for Indigenous students that offers a compelling pathway to digital jobs. I look forward to welcoming these students, creating digital skills, and learning from them.”

Lakehead has over a thousand self-identified Indigenous students enrolled in 2020, which represents 12 per cent of the University's domestic student population – one of the highest enrolments of self-identified Indigenous students among Ontario universities.

Lakehead President and Vice-Chancellor Dr. Moira McPherson is excited about the significance of this partnership.

“We understand the barriers that Indigenous students face when looking for ways to start and nurture careers,” she stated. “Partnerships like this one with OpenText will contribute greatly to our students' futures by providing experiences to work hand-in-hand with professionals in their field, apply skills and knowledge they gained at Lakehead University, and share their culture and history with others.”

The addition of the OpenText Indigenous Internship Program will expand the innovative experiential learning opportunities offered to students on Lakehead's campuses and demonstrates the University's commitment to helping Indigenous students further their educational aspirations.

Both OpenText and Lakehead University acknowledge the findings of the Truth and Reconciliation Commission of Canada, including the call for businesses to build respectful relationships with Indigenous peoples, ensure equitable access to jobs, training, and education opportunities in the corporate sector.

The first recruitment for the OpenText Indigenous Internship Program will take place this fall, with the placements occurring during the summer of 2022.

PTC Provides "Leading AR Platform for Connected Workers in the Market Today," According to teknowlogy Group

23 September 2021

PTC announced that, for the third year in a row, its Vuforia® Enterprise Augmented Reality Suite (AR) has been named a "Best in Class" technology in teknowlogy Group's latest PAC Radar vendor analysis. In the report, entitled "Open Digital Platforms for the Industrial World in Europe 2021," PTC is positioned as a top vendor in both "competence" and "strength in the marketplace."

According to the report, PTC provides the leading AR platform for connected workers in the market today for three reasons. First, PTC is the only vendor that offers a broad solution portfolio for different use cases and on different technical levels – deep code (Vuforia Engine™), low code (Vuforia Studio™), and no code (Vuforia Expert Capture™, Vuforia Instruct™, and Vuforia Chalk™). Second, PTC is the only vendor that strongly pushes the integration of AR with emerging technologies such as IoT, AI, SaaS, and spatial computing. Third, PTC has a strong vision for future AR integrations, bringing its Vuforia portfolio elements closer together to offer tightly integrated solutions for holistic work procedures.

In addition, the PAC Radar analysis recognizes PTC as the first vendor to integrate its AR and IoT capabilities – Vuforia and its ThingWorx® IIoT platform – acknowledging PTC's ability to harness the digital thread to create a closed loop between the digital and physical worlds and transform how products are engineered, manufactured, and serviced.

"No other vendor offers a broader solution portfolio for different use cases and on different technical levels" said Arnold Vogt, Head of Digital Innovation and IoT at PAC. "PTC has a clear vision and has already started to bring its Vuforia portfolio elements closer together to offer tightly integrated solutions for holistic work procedures."

"PTC is proud to be recognized as the leading AR platform for connected workers for the third consecutive year by the PAC Radar analysis," said Michael Campbell, Executive Vice President and General Manager, Augmented Reality Products, PTC. "The achievement emphasizes our commitment to offering the best-in-class augmented reality solutions that empower industrial enterprises and complete the digital thread."

Synopsys Partners with The Chertoff Group to Provide Policy-Driven Software Security Solutions

21 September 2021

Synopsys, Inc. announced a new partnership with The Chertoff Group, a global advisory services firm that applies security expertise, technology insights, and policy intelligence to help clients build resilient organizations, gain competitive advantage, and accelerate growth.

Synopsys partners with key solution providers worldwide to help customers build more secure software faster. This partnership with The Chertoff Group brings industry-leading solution providers together to deliver application security solutions that help customers build trust in their software. Customers can now take advantage of The Chertoff Group's advisory services and Synopsys' application security domain expertise to ensure a smooth execution of cloud migration and digital transformation projects.

"The Chertoff Group's partnership with Synopsys is powerful because it combines market-leading software security and cyber risk management capabilities," said David London, a managing director at The Chertoff Group. "As we've learned from the spate of disruptive technology supply chain

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compromises, organizations must unify their approach to product security with enterprise cyber defense. By combining The Chertoff Group's cyber risk capabilities with Synopsys' software security expertise, we help clients overcome that compounded challenge."

Partnership highlights include:

- **Timely cyber policy insight** that drives coordinated enterprise and product-level security direction
- **Unified threat modeling** that reflects adversary behavior and facilitates better defensive coverage and prioritized countermeasures
- **Technical testing and validation outcomes translated into business context** that enables leadership to better understand and defend against cyber security risks

"Organizations are increasingly realizing that software risk equates to business risk," said Tom Herrmann, vice president of channels and alliances at the Synopsys Software Integrity Group. "This is a central focus of the partnership between Synopsys and The Chertoff Group, which was born out of a desire to educate organizations on policies and standards and how they can be directly applied to development and deployment teams."

Join David London, managing director of cyber security at The Chertoff Group, and Tim Mackey, principal security strategist at the Synopsys Cybersecurity Research Center, on October 7 at 1pm ET for a webinar exploring some of the more significant outputs from the National Institute of Standards and Technology (NIST) and the National Telecommunications and Information Administration (NTIA) in response to the recent executive order and how to actionably apply their guidance within your organization. The webinar will also cover how to identify critical software, communicate security information between teams and organizations, and address deployment considerations such as log management and zero-trust principles.

TCS Partners with NICE Actimize to Offer Integrated Financial Crime Compliance Solutions to Customers

21 September 2021

Tata Consultancy Services (TCS), a leading global IT services, consulting, and business solutions organization, is partnering with NICE Actimize, a NICE business, the broadest provider of financial crime, risk and compliance solutions for global financial institutions, to implement anti-money laundering, compliance, and fraud risk management solutions. The partnership with NICE Actimize will further enable the two companies to provide integrated services, solution synergies and global scale to banking, financial services, and insurance clients.

The partnership will combine TCS' and NICE Actimize's domain expertise and financial crime and compliance solutions. TCS has extensive experience partnering with some of the world's largest banks and has built unparalleled expertise in financial crime and compliance services across KYC, AML and anti-fraud operations. TCS' comprehensive set of services in this domain include consulting, analytics, transformation and technology solutions, platform solutions, and change management services. TCS has been continuously investing in financial crime and compliance-focused research and adopting RegTech designs to combat financial crime, enhance associated market compliance, and minimize financial and reputational risks.

TCS leverages its Machine First™ approach and innovative solutions in financial crime and compliance to offer end-to-end services to financial institutions to control financial crime and fraud risks.

“Evolving financial crime typologies, increased transgressions, and higher risk exposures require financial institutions to continuously enhance the controls for combating financial crime. Advanced technology designs, data interventions, and digitalization can enable these organizations to maintain a robust defense,” said **K Krithivasan, Business Group Head, Banking, Financial Services, and Insurance, TCS.** *“The TCS and NICE Actimize partnership will bring in the right mix of domain expertise, data analytics, world-class solutions, scale and agility to help our customers transform their financial crime controls and compliance function.”*

Craig Costigan, CEO, NICE Actimize, said, *“As we join together with the TCS organization, NICE Actimize is excited to expand the footprint for our financial crime solutions, while allowing us to provide enhanced customer support and services. We welcome the opportunity to further our market expansion within TCS’ extensive network.”*

The Revolution in Simulation Initiative Continues to Expand as EnginSoft Joins a Growing Alliance of Sponsors

15 September 2021

The global simulation industry collaboration and technology alliance *Revolution in Simulation* (“Rev-Sim”), created to accelerate innovation through the democratization of engineering simulation, announces EnginSoft as its newest participating sponsor and collaborator.

“We are most passionate, though, about our clients and helping you to achieve unprecedented results and returns on your engineering simulation investments. We invest in building long-term relationships, whether partnering with your in-house team or providing outsourced engineering simulation. We pride ourselves on crafting customized solutions for each production context, based on your business needs and objectives, that effectively leverages the skills, methods, knowledge and experience in your organization.” EnginSoft President, **Stefano Odorizzi**

EnginSoft adds its name to a steadily increasing list of participating sponsors that now includes Aras, ASSESS, BETA CAE, Dassault SolidWorks, EASA, ESRD, Front End Analytics, Future Facilities, Hexagon/MSC, Kinetic Vision, Modelon, NAFEMS, nTopology, Ohio Supercomputer Center, OnScale, PASS Suite, Phoenix Integration, Pointwise, Siemens, UberCloud and VCollab.

Each of these simulation leaders are providing expert leadership in the movement to make engineering simulation software more accessible, efficient, reliable, and impactful not just for CAE experts but also for others across the enterprise – what is commonly referred to as the *Democratization of Simulation*. The demand for automated simulation is exploding, resulting in next-generation usage of traditional, expert-driven simulation tools and platforms.

Rev-Sim Director of Partnerships, Mike Nieburg said, “Each of our sponsors are working to advance and expand the use and value of engineering simulation software by innovating within their market spaces. We are excited to have EnginSoft join us demonstrating their revolutionary thought-leadership and technology in a collaborative alliance that benefits all industrial users of engineering simulation.”

Trimble Announces Chief Platform and Chief Technology Officers

21 September 2021

Trimble announced that Jennifer Lin has been appointed chief platform officer and Dr. Poppy Crum chief technology officer.

Jennifer Lin - Chief Platform Officer

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As chief platform officer, Lin will lead Trimble's platform strategy to develop and deliver connected industry workflows for our core markets and cultivate a culture of world-class product management.

"We are excited to welcome Jennifer to the team," said Rob Painter, president and CEO of Trimble.

"Her track record of success in cloud platform services, expertise in complex systems architecture and product management will accelerate the development of Trimble's platform strategy as we execute on our Connect and Scale 2025 strategy. It is our priority to continuously strengthen our connected industry platform capabilities to deliver superior solutions to our customers."

Lin previously worked at Google where she served as vice president of product and user experience focused on their cloud services platform roadmap and go-to-market strategy. Prior to Google, Lin was on the founding team and led product at Contrail Systems, a cloud automation startup acquired by Juniper Networks. At Cisco, Lin managed various product teams focused on wireless sensor networks, Internet of Things (IoT), mobility services and security. Previously, she has led teams in technical, operational and strategic roles at Intel, Merck and Silicon Valley startups. Lin received a BSE from Princeton University and an MSE from Stanford University.

Poppy Crum - Chief Technology Officer

As chief technology officer, Crum will lead Trimble's technical vision and advance a culture of innovation.

"We are also excited to welcome Poppy to the team," said Painter. "Poppy's proven savvy in emerging technologies will be instrumental in advancing our innovation engine and research and development efforts for our next stage of growth. Innovation has been, and will continue to be, a cornerstone for Trimble. This is an exciting opportunity to accelerate our innovation in robotics, artificial intelligence, machine learning and mixed reality, and effectively bring new solutions to our customers and industry."

Crum joins Trimble from Dolby Laboratories where she served as chief scientist, leading data-driven innovation in technology development and strategy. She is also an adjunct professor at Stanford University focusing on technologies such as augmented and virtual reality in human computer interaction and learning. Prior to joining Dolby Laboratories, Crum was research faculty at Johns Hopkins School of Medicine. Crum also serves as a U.S. representative and vice-chair to the International Telecommunication Union (ITU), a board member of the Consumer Technology Association, and was a former member of the Defense Science Research Council (DSRC) of DARPA. Crum is a Fellow of the Audio Engineering Society. She is the 2021 recipient of the Hedy Lamarr Award for Innovation in Entertainment Technology, a 2018 recipient of the Advanced Imaging Society's Distinguished Leadership Award, a 2017 recipient of the Consumer Technology Association's Technology and Standards Achievement Award, and has been named to Billboard Magazine's 100 most influential female executives in the music industry. Crum is an author connected to more than 37 patents. She is also a frequent speaker on topics related to the intersection of human experience, artificial intelligence, sensory data-science and immersive technologies. Crum received a BMus from University of Iowa, MA from McGill University and a PhD from UC Berkeley.

University at Buffalo receives grant from Siemens for industry-leading manufacturing software to prepare students for highly skilled, in-demand roles

23 September 2021

Students returning to the University at Buffalo (UB) this fall are poised to benefit from an innovative public and private workforce development collaboration thanks to the Siemens Digital Industries Software Academic Program, which will provide the university an in-kind software grant of tools for

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computer-aided design, simulation, manufacturing planning, robotics, product lifecycle management, and more. Siemens will also provide expertise to help shape corresponding curriculum to best prepare UB students for high demand roles in the industrial sector.

Through this partnership, UB students from the School of Engineering and Applied Sciences, School of Management, and the School of Architecture and Planning will emerge with in-depth, working knowledge of the latest software tools being used by hundreds of the world's largest industrial companies—including over 330 companies in New York state—best preparing them for highly skilled positions that companies in Western New York, the broader New York region, and beyond are looking to fill.

“We are immensely grateful to Siemens for this generous and impactful gift to our university community,” said UB President Satish K. Tripathi. “As we prepare our students to lead in the 21st century, our collaboration with Siemens will enhance our students’ competitiveness and equip them with cutting-edge knowledge and skills, enabling them to meaningfully serve industries and communities across the region, the state and the world. The University at Buffalo is committed to contributing to the economic development and vibrancy of our region and beyond, and we deeply appreciate that Siemens—as demonstrated by this important partnership—shares in that commitment.”

“At UB, we provide outstanding educational experiences for our students,” said A. Scott Weber, Provost and Executive Vice President for Academic Affairs at UB. “This grant will provide students with access to industry-leading software tools that are used by manufacturing and industrial companies around the world, enabling students to immediately take their knowledge from theory to practice, furthering their skills and preparing them for future success.”

“Siemens strongly believes that partnering across the educational ecosystem is critical to best prepare a future workforce, and we’re excited to expand our efforts in the New York region by making this grant to University at Buffalo that will help ensure companies here in Buffalo and around the world have access to a diverse and incredibly skilled talent pool,” said Barbara Humpton, CEO of Siemens USA.

“We are seeing a true shift change across the manufacturing sector where companies are embracing digital tools to scale, innovate and compete on a global stage. But, these tools are only as powerful as the people behind them, so it continues to be our mission to best prepare the next generation of individuals who will propel manufacturing even further into the future,” said Del Costy, Senior Vice President of Siemens Digital Industries Software.

The manufacturing software tools are already in use by several Western New York companies that boast a large number of UB graduates in their workforces. These companies include local innovators like Moog, Inc., a 65-year-old Buffalo area design, manufacturer and integrator of precision control component and systems for aerospace, defense, industrial and medical applications. Moog, Inc., a long-time Siemens Digital Industries software suite partner, will benefit from the new Siemens and UB venture to help ensure a consistent pipeline of talent to strengthen its footprint.

“As a world leader in developing motion controls for mission critical applications, Moog understands the important role that cutting-edge engineering tools play in development and production processes,” said George Small, Moog’s Chief Technology Officer and a University at Buffalo graduate. “We have 20 years of experience leveraging Siemens tools in providing solutions to our customers’ most complex technical challenges. And as a longtime partner with UB, we appreciate the value of Siemens grant and the positive impact it will have both now and in the future.”

“We value the partnerships of forward-looking companies like Siemens and Moog,” said Kemper Lewis, Dean and Moog Professor of Innovation in UB’s School of Engineering and Applied Sciences. “That

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companies of this caliber recognize the benefits of collaborating with our students and faculty to drive work force innovation is an honor and a tribute to the talented and driven faculty and students in our UB community.”

This grant to UB is one of over 1,000 partnerships in the Siemens Digital Industries Software Academic Partner Program, an initiative built to empower the next generation of digital talent. The grant also supports the university’s comprehensive Boldly Buffalo campaign, which is seeking to raise \$1 billion to support UB’s students, enhance and enable faculty research, and improve outcomes around the world.

The partnership is also the latest in a long-standing collaboration between Siemens and the State University of New York statewide SUNY network, where faculty and researchers have been working with Siemens experts on topics including the clean energy workforce, smart and connected cities; and building a STEM ecosystem. For example, SUNY Corning Community College has partnered with Siemens to establish the College’s STEAM Innovation Center, where state-of-the-art equipment will allow the college to explore and expand public-private partnerships with local employers to meet their workforce needs, as well as implement a campus-wide effort to reduce the college’s carbon footprint, improve energy efficiency, and raise student awareness about the importance of environmental sustainability.

Siemens has a long-standing footprint in the broader New York region with 2,500 employees throughout the state working across the company’s infrastructure, financial services and healthcare businesses.

Event News

Infor to Showcase Industry-Specific Cloud Prowess at GITEX 2021

19 September 2021

Infor, the industry cloud company, returns to GITEX in 2021 with ambitious plans to demonstrate the power of its industry-specific cloud solutions to help customers automate and simplify complex systems, scale up rapidly, put the user experience first, and leverage data science — all with technology that integrates easily into existing systems.

Infor will demonstrate solutions including its industry-specific CloudSuites for industrial manufacturing, distribution, healthcare and automotive, with specialists available to discuss each of these solutions. Infor will also showcase its enterprise applications and enterprise resource planning (ERP) engines that are at the heart of its solutions, and which are designed for specific industries. These highly robust solutions manage financial and operational tasks, streamlining processes, eliminating redundancies, and providing end-to-end visibility.

Infor’s stand E50 in Hall 7 will feature distinct zones enabling visitors from specific industries to understand how their organization can transform and gain the full advantages of cloud, positioning them to embrace new technologies including artificial intelligence (AI) and machine learning.

Throughout the week, Infor will host a series of best practice workshops, including one in conjunction with Amazon Web Services (AWS) to show how the two companies support a faster path to transformation through business systems tailored to specific industries. Other workshops will focus on: “Realizing your digital potential,” “The warehouse of the future,” and “People and technology working together.”

Infor’s top regional executives, software engineers and sales executives, led by Amel Gardner, Infor’s vice president and general manager for Middle East & Africa, will be on hand to provide

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demonstrations, discuss market challenges and solutions, and answer any questions about Infor's solutions.

“Because of our industry focus, we can offer a complete 360-degree, end-to-end transformation of our customer's enterprise, not just the finances or inventory,” said Amel Gardner. “We help manage their supply chains, business processes, assets, goods and services, and, at the center of it all, their people — all in one integrated solution: one version of the truth to be shared among stakeholders.”

Infor will also stress the importance of design thinking at GITEX. The company's dedicated Value Engineering team will present workshops on how design thinking helps establish a clear vision for digital transformation, along with an understanding of the key challenges and opportunities that form part of the journey. The workshops, titled “Realising your digital potential,” will help organizations set the right foundations for success with their digital transformation endeavors.

Infor has numerous customers across the region, with recent references including Supertech Group, the UAE-based supplier of industrial products & services; Al-Jazira Equipment Co. Ltd. (AutoWorld), a pioneer in auto leasing in the Kingdom of Saudi Arabia; Zahid Tractor, the leading supplier of plant and construction vehicles in Saudi Arabia; and Bahrain's Asry Shipyard, the Gulf region's leading maritime and industrial optimization yard.

With the backing of its parent company, Koch Industries, Infor has the stability and investment it needs to help organizations across the region achieve their cloud and digital transformation ambitions. Infor's customers in the region are a testament to the transformative power of its industry-specific solutions, which have a clear edge over the more generic solutions offered by many of its rivals in the cloud enterprise space.

Financial News

Propel Announces \$20 Million Series C to Help Manufacturers Deliver Long Term Customer Engagement

21 September 2021

Propel, the modern way to take products from concept to customer, announced it has raised \$20 million in Series C financing. The investment is led by Salesforce Ventures, with participation from existing investors Norwest Venture Partners, Cloud Apps Capital Partners, Green D Ventures and TIFF. The existing investors are joined by new investor Ankona Capital, a venture capital firm with experience in both supply chain and scaling enterprise B2B SaaS solutions. The company has raised a total of \$48 million in funding to date.

With this new round of funding, Propel will continue its development of Product 360 - the only unified quality management (QMS), product lifecycle management (PLM) and commercialization solution built on Salesforce. By connecting product, quality, customer and supplier information in a single platform, Product 360 helps manufacturers launch products faster, simplify quality and compliance, and improve their employee user experience. This comprehensive approach is ideal for industries where success relies on getting high quality products to market fast, such as high tech, health and life sciences, consumer, and automotive suppliers.

Propel's Product 360 also supports high growth and enterprise businesses launching recurring revenue models that rely on long term customer engagement after the initial product sale. Enterprise-wide collaboration coupled with real time data allows companies to be more responsive to their customers, respond to unforeseen events faster, and make the right decisions.

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“Now more than ever, new business models require faster innovation, supply chain resiliency, and global sales models to succeed,” said Ray Hein, CEO of Propel. “Progressive business and IT leaders recognize the need to put the customer at the center of the product experience. That’s why companies like Cisco, Guardant, Henry Schein, HP, Teladoc and Traeger have invested in Propel this year.”

“Industry solutions are really resonating with our customers because they deliver industry-specific capabilities with a simple and easy-to-use IT stack”, said Cindy Bolt, SVP Manufacturing, Automotive, Energy, Travel, Transportation, & Hospitality at Salesforce Industries. “This approach has been successful in financial services, communications, media, and insurance. The manufacturing and life sciences industries are quickly demanding these capabilities to evolve their businesses to respond to new market demands.”

“The increase in demand for Propel from mid-market and enterprise companies shows the market is using Propel to help drive revenue growth by enabling new customer engagement models,” said Jared Smith, General Partner with Ankona Capital. “They’re poised for growth, and we look forward to helping Propel capitalize on this unique market opportunity.”

Accenture Reports Very Strong Fourth-Quarter and Full-Year Fiscal 2021 Results

23 September 2021

Accenture reported financial results for the fourth quarter and full fiscal year ended Aug. 31, 2021.

Go to the press release on the Accenture website to view the full results

<https://newsroom.accenture.com/news/accenture-reports-very-strong-fourth-quarter-and-full-year-fiscal-2021-results.htm>.

Accenture to Host Conference Call Tomorrow, Sept. 23, to Discuss Fourth-Quarter and Fiscal Year 2021 Results

22 September 2021

Accenture will host a conference call at 8:00 a.m. EDT tomorrow, Sept. 23, to discuss its fourth-quarter and fiscal year 2021 financial results. A news release containing these results will be issued before the call.

To participate, please dial +1 (877) 692-8955 [+1 (234) 720-6979 outside the United States, Puerto Rico and Canada] and enter access code 6450548 approximately 15 minutes before the scheduled start of the call. The conference call will also be accessible live on the Investor Relations section of the Accenture Web site.

A replay of the conference call will be available online beginning at 11:00 a.m. EDT on Thursday, Sept. 23, 2021. The replay will also be available via telephone by dialing +1 (866) 207-1041 [+1 (402) 970-0847 outside the United States, Puerto Rico and Canada] and entering access code 6704907 from 11:00 a.m. EDT Thursday, Sept. 23 through Wednesday, Dec. 15, 2021.

Implementation Investments

Capgemini and Ryder Cup announce six-year partnership

23 September 2021

The PGA of America and Ryder Cup Europe today announced a new six-year partnership with Capgemini that will begin at this year’s Ryder Cup.

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Following this inaugural year as a Worldwide Supplier to the 43rd Ryder Cup, Capgemini's status will elevate to Worldwide Partner for the 2023 Ryder Cup in Rome, 2025 Ryder Cup in Farmingdale, N.Y., and the 2027 Ryder Cup in County Limerick, Ireland, where its industry leading digital transformation capabilities will help to enhance the Ryder Cup for its fans and organizers.

The worldwide partnership with the Ryder Cup, one of the most significant events in sport, which brings together the best of the best from around the world through team competition and helps advance golf across the globe, is a momentous first step in Capgemini's golf story. This partnership reflects Capgemini's focus on building and celebrating talent, team spirit and high performance – all of which are at the heart of both Capgemini and the Ryder Cup.

This year's Ryder Cup, the biennial men's team contest between Europe and USA, was postponed from September 2020 and is set to begin on the Straits course at Whistling Straits, Kohler, Wisconsin, on Friday. Capgemini will feature prominently in its new role at Whistling Straits and will look to provide technical support and transformational solutions to the PGA of America and Ryder Cup Europe throughout the course of the six-year sponsorship.

As a global leader with almost 300,000 team members in 50 countries, including well-established operations across Ryder Cup host countries in the United States and Europe, Capgemini will promote the Ryder Cup across all its international locations to further grow a diverse global fanbase.

Through its deep technology and business transformation expertise, Capgemini will be a true partner to the Ryder Cup, working with Ryder Cup Europe and the PGA of America to constantly adapt, master and apply the latest innovations in technology and sport through the lens of precision and accuracy, which are fundamentals of success in both industries.

Aiman Ezzat, Chief Executive Officer of Capgemini said: *“At Capgemini we share the values of golf and its premiere team competition, the Ryder Cup, an incredible international event and great opportunity for the Group. I am thrilled that Capgemini will bring its deep expertise in technology to the world of golf for the first time in 2021 and for the coming years. This new long-term, worldwide partnership reflects the international breadth and diversity of the Capgemini Group and what international teams, comprising top talent, can accomplish when working together toward a common goal.”*

“Capgemini's reverence for the Ryder Cup and respect for its values provided both sides with an ideal starting spot to begin our relationship,” said PGA of America President Jim Richerson. *“We're very happy with our new partnership with Capgemini and look forward to welcoming them to the Ryder Cup at Whistling Straits, but we love the path we are taking together toward Italy in 2023, New York in 2025 and Ireland in 2027.”*

Guy Kinnings, the European Tour's Deputy Chief Executive, Ryder Cup Director and Chief Commercial Officer, said: *“The Ryder Cup is a truly global sporting event which connects people around the world so we are delighted Capgemini, a global leader in the technology industry, will be part of our commercial family for the next four editions, including as a Worldwide Partner from Rome onwards. Technology plays such an integral role in a modern Ryder Cup and Capgemini's innovation and expertise in this area will unquestionably enhance our ability to successfully deliver one of the world's most watched sporting contests.”*

The Ryder Cup announcement comes on the heels of Capgemini becoming a Worldwide Partner of Rugby World Cup France 2023 and joining World Rugby as its Digital Transformation Partner. Both the golf and rugby partnerships lead Capgemini's sponsorship strategy of embracing global sporting events that are driven by team spirit, precision and high performance.

Capgemini joins the Stanford Digital Economy Lab (S-DEL) affiliates program to unlock new opportunities created by digitization

16 September 2021

Capgemini announced that it is joining the Stanford Digital Economy Lab (S-DEL), as its first corporate affiliate member. It will contribute to the Lab's mission to understand the impact of the digital economy and its role in creating an inclusive, equal society. S-DEL is a new interdisciplinary research group studying how digital technologies are transforming work, organizations, and the economy towards a world of shared prosperity.

The Lab is led by Erik Brynjolfsson, one of the foremost experts on digital economy, and brings together a group of relevant stakeholders to analyze data, run experiments, develop theories, and provide actionable insights to solve pressing global issues. As part of this initiative, Capgemini with its Applied Innovation Exchange and global client database, will collaborate with the S-DEL to exchange and implement ideas in real-world scenarios and provide feedback to create a meaningful impact.

“Capgemini has a long history of successfully collaborating with academic organizations to drive break-through innovation with and for our clients. We're glad to be a part of Stanford's initiative as they have played a significant role in shaping a meaningful and inclusive future for the world. Our collaboration with the Stanford Digital Economy Lab further underlines our commitment to drive tech-based, well researched, sustainable solutions to help societies and organizations get the future they want,” said Pascal Brier, Chief Innovation Officer at Capgemini and member of the Group Executive Committee.

“The answer to many of the most pressing questions that society and businesses are asking today lies in the exploration of digital business models, applied artificial intelligence, and empowering data-driven decision making,” said Andreas Sjöström, Leader of Capgemini's Applied Innovation Exchange in San Francisco. *“We look forward to contributing to the Stanford Digital Economy Lab's research to leverage new insights and create positive outcomes for all, working hand-in-hand with innovation leaders and practitioners around the world.”*

Capgemini will work with the S-DEL on its initial five research tracks:

- Digital Platforms: The ways that companies are doing business via digital platforms and intelligent technologies—and the impact these advancements will have on the economy and society.
- Artificial Intelligence (AI) & the Future of Work: Understanding the evolution of the global workforce in a rapidly changing digital economy
- Data-Driven Decision Making and Management Practices: Measuring, assessing, and predicting how data-driven decision-making and management practices are impacting the global economy and workforce.
- Economic and Productivity Impacts of COVID-19: Studies around how businesses and workers are adapting to measures, such as lockdowns and remote working, brought on by the pandemic.
- Measuring the Digital Economy: The exploration and creation of better methods and models to measure the health of an increasingly digital-centric economy.

As a core foundation of Capgemini's innovation programs, the San Francisco Applied Innovation Exchange's first collaboration with S-DEL will focus on its Digital Platforms research track.

Frost Bank Selects Infosys as Strategic Partner to Launch New Mortgage Loan Product Offering

16 September 2021

Infosys, a global leader in next-generation digital services and consulting, announced that it would collaborate with Frost Bank to provide strategic business consulting and digital capabilities that will enable Frost Bank to offer mortgage loans along with its other consumer loan products. Infosys will help design the bank's mortgage loan process landscape from origination to servicing, design the end-customer experience, and select the most effective technology platform to run and manage operations, while driving growth for its mortgage solutions over the next five years.

Infosys and Frost Bank will work together to create a human-centric, digital-first approach to customer mortgage loans that delivers superior borrower experience along with cutting-edge efficiency of operations. The implementation strategy will focus on accelerating launch of the new product, while also streamlining the mortgage value chain for Frost Bank by taking advantage of Infosys' access to global best practices and innovations.

“Offering mortgage loans along with our other consumer loan products is integral to meeting our customers' evolving needs and bringing the Frost experience to more Texans,” said **Phil Green, Chairman and CEO at Frost Bank**. “Working with a world-class company like Infosys will allow us to be involved in the entire process from start to finish and bring our industry-leading customer service experience to mortgages.”

Infosys also has deep expertise and long years of experience in collaborating with independent mortgage solution providers and regional banks in the US. Frost Bank can leverage this to compete profitably in a rapidly transforming competitive landscape.

Mohit Joshi, President, Infosys said, “At Infosys, we have built strong capabilities in transforming mortgage businesses by providing our clients with unique solutions that meet their customers' expectations of speed, transparency, convenience, and personalization. Our collaboration with Frost Bank sets the stage for a new era of mortgage services, and we are excited to bring to this engagement, our collective expertise.”

HCL Technologies and Lendico, an ING Germany Company, Join Forces in Building Solutions for SMEs

21 September 2021

HCL Technologies (HCL), a leading global technology company, has entered a multi-year application services transformation partnership with Lendico, a brand of ING Germany, to deliver application and engineering services to help it create a state-of-the-art digital platform that makes business banking faster and more convenient for small- and medium-sized enterprises (SMEs).

HCL will establish a tech lab in Berlin that will combine fintech mindset, agile culture and customer focus with engineering expertise, global delivery capabilities, and deep domain knowledge of financial services and risk management. Lendico will be the first to leverage the lab to bring innovative approaches for processes, such as credit decisioning, loans collections and KYC. The lab will also enable transformational technology architectures, such as API gateways and microservices. Lendico will be able to scale by rapidly onboarding new partners and bringing new services to market faster, thus enhancing customer experience.

“We want to create complete business banking solutions that enhance our position as a strong partner for

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SMEs on the basis of the agile mentality that enables us to innovate and scale rapidly,” said Sven Foos, Managing Director, Lendico and Head of Business Banking, ING Germany. “HCL was the ideal partner to support our journey due to its ingrained culture of digital innovation, next-generation engineering capabilities and transformational frameworks.”

“Lendico is a frontrunner in frictionless digital SME lending, and we are excited to be a part of this transformational journey,” said Sudip Lahiri, Senior Vice President and Head of Financial Services, Europe, HCL Technologies. “Our partnership with Lendico will become a template for fintechs looking to scale digitally by embracing a platform-based ecosystem model. This approach will strengthen Lendico’s ability to reach new customers and markets quickly while remaining compliant with strict industry regulation. Our fintech lab will become a hub for financial services innovation in Europe and will further strengthen HCL’s delivery capabilities for banking clients in Germany.”

Over 3 crore Taxpayers Successfully Complete Transactions. 1.5 crore Income Tax Returns Filed

23 September 2021

Infosys, a global leader in next-generation digital services and consulting, shared further updates on the progress it is making on the Income Tax E-Filing Portal.

Over the last few weeks, the portal has seen steady increase in usage with taxpayers’ concerns being progressively addressed. Thus far, over 3 crore taxpayers have logged into the portal and successfully completed various transactions. Even as the portal makes sustained progress with crores of taxpayers successfully performing transactions, the Company acknowledges the difficulties some users continue to experience and is working expeditiously, in collaboration with the Income Tax Department, to further streamline end-user experience.

During the month of September, on average, more than 15 lakh unique taxpayers have logged into the portal, daily, and over 1.5 crore returns have been filed till date. Over 85 percent of taxpayers who have filed their returns have also completed their e-verification, largely through Aadhaar OTP authentication. The portal is facilitating over 2.5 lakh returns filing on a daily basis and ITR 1, 2, 3, 4, 5, and 7 are now available for filing. A majority of the statutory forms have also been made available online. Several critical statutory forms like 15G, 15H, EQ1, 10A, 10E, 10IE, DTVSV, 15CA, 15CB, 35 as well as TDS Returns are being filed in large numbers. More than 11.5 lakh statutory forms and over 8 lakh TDS returns have already been filed. Taxpayer services such as e-proceedings, response to notices and demands, e-PAN services, DSC registrations, and functionality for legal heir, have also been enabled. Over 16.6 lakh e-PANs have been allocated. 4.3 lakh DSC registrations and over 3.44 lakh e-proceeding responses to notices have also been completed.

Even as it makes steady progress, Infosys recognizes the ongoing challenges faced by some users and has engaged with more than 1200 taxpayers directly to better understand their concerns. The Company is focused on rapidly resolving these challenges while working closely with the Chartered Accountant community to ensure that a comprehensive set of user scenarios are supported and thoroughly tested before deployment. Infosys remains committed to making rapid progress and has currently dedicated more than 750 resources to this project to complete significant portions of work, in collaboration with officials from the Income Tax Department. Infosys takes pride in partnering with the Government of India and continues to work closely with various departments to accelerate the digital evolution of the country’s technology capabilities.

Packaging specialist Theegarten-Pactec: End-to-end processes with CIM Database PLM

13 September 2021

Theegarten-Pactec GmbH & Co. KG is a leading manufacturer of packaging systems in the food and non-food sectors. The company now uses CIM Database PLM from CONTACT Software in the development of new machines and during order processes. The aim is to respond even more flexibly to increasing customer and market requirements in the future, to launch product innovations on the market faster and to ensure company-wide know-how in the long term

The continuous demand for individual packaging solutions, the increasing focus on the topic of sustainability and the growing variety of product variants pose major challenges for manufacturers of packaging systems. In order to react quickly and flexibly to new requirements in the future, Theegarten-Pactec has opted for CONTACT Software

The family-owned company headquartered in Dresden is a leading global manufacturer in the field of packaging technology and an innovative system supplier for upstream and downstream processes. Around 400 employees develop and produce high-quality and intelligent packaging machines for small-sized confectionery, other food and non-food products.

With CIM Database PLM, the company ensures smooth interaction of its systems, processes and employees along the entire value chain from product development to service, maintenance and retrofits of plants in the field. In the future, a valid multi-CAD data management and the integration of existing IT systems and business applications will ensure a consistent view of the data for all stakeholders.

This enables Theegarten-Pactec to implement customer-specific adaptations more quickly and anticipate market requirements. In addition, the company increases the quality of product development, significantly reduces its times and costs, and at the same time shortens the order throughput time.

In the course of a partnership, Theegarten-Pactec and CONTACT are developing a joint solution for documenting all relevant machine-related information that arises during the entire lifetime of a packaging system. With the so-called production file, information on requirements, parts lists, 2D and 3D visualizations, spare parts catalogs, documents and change processes are transparently stored for each packaging system at any time throughout the entire life cycle.

The main focus was on a more efficient management of product-related documentation. The smooth interaction of the individual application modules convinced HBC. With CIM Database, all users now have access to the same valid project planning data, technical changes and quality details. This reduces errors, saves costs and empowers the global service team. At the same time, the integrated project management solution improves cooperation between the individual departments and provides comprehensive support for the company's processes.

"With the Elements platform and CIM Database, CONTACT Software provides us with the methodical and systemic basis for further increasing our competitiveness and profitability in a fast-moving and dynamic competitive market. With its know-how, experience and product portfolio, CONTACT is definitely a long-term partner for us," says Dr. Dirk H. Winter, Project Manager at Theegarten-Pactec.

Spruce International Adopts Centric PLM to Drive Efficiency

20 September 2021

Spruce International, an up and coming fashion company, has selected Centric Software®'s Product Lifecycle Management (PLM) solution, Centric for emerging brands. Centric Software provides the

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most innovative enterprise solutions to plan, design, develop, source and sell products such as apparel, footwear, sporting goods, furniture, home décor, cosmetics, food & beverage and luxury to achieve strategic and operational digital transformation goals.

Based in Santa Monica, California, Spruce International is the design and R&D center of two brands, Magnlens and Hanscool as well as some private label projects. Jingying Textiles in Guangdong, China is the parent company and provides the fabrics for the brands, making the company vertically integrated. Hanscool sells upscale clothing in China. Magnlens sports collections for men and women, and is being sold online at magnlens.com, currently shipping to US addresses.

Like many start-ups, Spruce was using Excel and email for product development. But having been established in October 2019, Vice President of Design and Creative Director Andrew Buckler decided to bring in PLM to give the company the right start. “As a new, modern company we were fed up with spreadsheets.” He was also familiar with PLM from past experience in the fashion design world.

The selection process involved looking at multiple vendors, but ultimately, Spruce chose Centric SMB. “What impressed us about Centric is the way it can grow with us as a company. Right now we’re on SMB, but I can see us expanding from that sometime in the near future.” says Buckler. He mentions another factor in their decision. “Centric has quite a robust team in China. The dynamic of our company is we have design, marketing and sales here in the US. But then the other half—production, development and everything else is in China. And we wanted a system that we could use in both locations.”

It goes deeper than that. Buckler explains, “More fundamentally, the Centric team in China would be able to work with our team in China—train them, get them up to speed. That was one of the key considerations of why we ended up going with Centric. Most others don’t provide that level of expertise around the world or provide that level of service.”

Centric PLM is available in multiple languages including Mandarin, with offices across the globe so international teams can comfortably use the software in their native language and environment. “We’re expecting this to really speed up communication. Having a system that is precise, and directed, will definitely help that and everyone logging into the same system is a huge advantage,” says Buckler.

Another advantage is having Centric PLM be a single source of truth for all product information vs. having various versions of spreadsheets on different computers. “With one central system that everyone’s looking at, we’ll cut out the wasted time going back and forth trying to figure out who has done what and if they even got that email with X information and Y instructions...”

Spruce is committed to the environment. Not only do they use sustainable components and raw materials for their fabrics, but they also revamped the traditional fabric-making process. Buckler describes the Founder Mr Taiping Peng CEO of Jingying Textile’s passion for sustainability. “Massive amounts of water are traditionally used to make fabrics. He cut that by 40% through innovative redesign of equipment, to totally rethinking the way you dye fabric. We use a cold-dye process to cut out having to heat water and lose it to the air.” Spruce is using 3D modeling which contributes to reducing their carbon footprint by not having to ship as many samples back and forth.

Currently at the training stage, Spruce plans to implement PLM for their collections first. Says Buckler, “One of the plans for the future is to expand PLM all the way through to fabric creation. It would be ideal to track projects from conception of the fabric through to the conception and creation of the garment.”

Chris Groves, President and CEO of Centric Software says, “We are proud to partner with such an environmentally sound company that is both forward thinking and fashion forward. By getting Centric

PLM in earlier in the company's history, Spruce International has set themselves up for success now and in the future."

Trimble and Procter & Gamble to Collaborate in Transforming Transportation Procurement

15 September 2021

Trimble announced a new strategic relationship with Procter & Gamble to enhance how shippers and carriers partner during the transportation procurement process. This initiative will shape the development of an agile transportation procurement collaboration platform from Trimble that will complement its existing set of supply chain-focused solutions.

"We look forward to working closely with P&G to leverage their extensive supply chain expertise to improve the procurement process for both shippers and carriers through technology," said James Langley, Senior Vice President, Trimble Transportation. "This effort extends Trimble's commitment to create solutions that enable all stakeholders to work together more efficiently and effectively within a connected transportation supply chain."

Procter & Gamble will inform the creation of a dynamic platform with a focus on optimizing the procurement of transportation capacity, creating closer shipper and carrier relationships and helping each find the right partners. The platform will also expedite the contracting and onboarding process to increase the velocity of business transactions while enabling more cost-effective movement of freight.

"This collaboration empowers us to pair P&G's industry intelligence with Trimble's deep experience in transportation technology," said Michelle Eggers, Vice President, Global Logistics Purchases, Procter & Gamble. "Technology has the ability to transform and connect the supply chain as we know it today, leveraging smart solutions to create efficiencies and advance the North American transportation industry for everyone it serves."

University of Oxford and Oracle Cloud System Helping Researchers Identify COVID-19 Variants Faster

20 September 2021

The fast spread of the highly infectious Delta variant underscores the need for faster identification of COVID-19 mutations. Uniting governments and medical communities in this challenge, the University of Oxford and Oracle's Global Pathogen Analysis System (GPAS) is now being used by organizations on nearly every continent. Institutions using the platform include: the University of Montreal Hospital Centre Research Centre, the Institute of Public Health Research of Chile, the Oxford University Clinical Research Unit in Vietnam, the Institute of Clinical Pathology and Medical Research – New South Wales Pathology, and Oxford Nanopore Technologies. GPAS is also now part of the Public Health England New Variant Assessment Platform.

The Global Pathogen Analysis System is being provided as a free resource to help combat COVID-19 and other microbial health threats.

Built using Oxford's Scalable Pathogen Pipeline Platform (SP³), Oracle APEX, and Oracle Cloud Infrastructure (OCI), the Global Pathogen Analysis System is a cloud platform that provides a unified, standardized system for analyzing and comparing the annotated genomic sequence data of SARS-CoV-2. Researchers are using the system to upload pathogen data and receive comprehensive results within minutes. With user permission, the results may be shared with participating laboratories around the

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globe in a secure environment. Making this data comprehensible and shareable will help public health authorities evaluate and plan their response by giving them invaluable insight into emerging variants even before they are officially designated as Variants of Concern.

Uniting the global research community in a common mission

“GPAS is the first industry standards-based service anywhere in the world, offering a standardized sequence data analysis service for users on the cloud,” said Derrick Crook, professor of microbiology in the University of Oxford’s Nuffield Department of Medicine. “Users will be able to access, upload and process their sequence data fully under their sovereign control and receive back fully analyzed data in as little as 20 minutes of successful upload. If they select to share data, they will contribute to electronic dashboard visualizations of global data revealing the daily changes in the way the pandemic is progressing and how the virus is changing. This will enable continuous assessment of the pandemic and help guide national and global interventions to curb the impact of the virus.”

“COVID-19 is a global fight, yet researchers have lacked the technical infrastructure to process raw sequences quickly, securely and share those results worldwide,” said Oracle Chairman and CTO, Larry Ellison. “With GPAS, we are bringing the power and security of the cloud to enable any researcher, in any location to become part of the solution. The more data that medical institutions, governments, and academics provide, the more quickly we can understand and act to get ahead of the coronavirus.”

Using the platform, researchers and governments will be able to quickly access the timely, relevant data they need to make up-to-date scientific analysis and better informed policy and safety decisions regarding new variants. As part of their work with the Global Health Security Consortium (GHSC), the Lawrence J. Ellison Institute for Transformative Medicine (Ellison Institute) and the Tony Blair Institute (TBI) for Global Change have worked in coordination with Oxford and Oracle to support the development of the platform and to get it in the hands of global researchers.

“The world’s lack of preparedness for the COVID-19 pandemic has highlighted our need to work differently in order to identify solutions that are pragmatic and able to scale in the face of challenges,” said Dr. David B. Agus, GHSC Member and CEO, Ellison Institute. “GPAS is a key building block in the global data infrastructure for early warning systems and global surveillance.”

“We know only too well that viruses do not respect borders which is why we must take a global, single-minded approach to contain this pandemic,” said Tony Blair, Executive Chairman of TBI and former UK Prime Minister. “This platform promises to bring together data much more rapidly, helping us to better understand and get ahead of the patterns of spread faster, so governments can make better policy decisions and mitigate the devastating impact this virus continues to inflict in their own countries and across the globe.”

Product News

3D Repo Announce Integration with Autodesk Construction Cloud

22 September 2021

3D Repo, creator of a cloud-based collaboration platform for building information modelling (BIM) and digital twins, is excited to announce a new integration with Autodesk Construction Cloud®, a portfolio of software and services that combines advanced technology, a builders network and predictive insights for construction teams. The new integration via ACC Connect (Autodesk Construction Cloud Connect) allows 3D models to be published directly from Autodesk® Build, Autodesk Docs, or BIM 360® into 3D Repo.

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3D Repo is a browser-based BIM and digital twin platform which enables architects, engineers, and construction clients to identify and manage project risks within a collaborative 3D environment.

Custom workflows created in ACC Connect using the 3D Repo protocol can be triggered as soon as 3D models, including new versions, are added to Autodesk Build, Autodesk Docs, or BIM 360, meaning teams can get up and running with the 3D Repo toolset without manually uploading new or updated models.

3D Repo has over 100 Rest API endpoints that can be accessed via the HTTPS protocol, allowing you to further customise your integrations and increase the reliability of your data. Additionally, 3D models can be added using the 3D Repo Navisworks or Revit Plug-in.

“We are delighted to be closely collaborating with Autodesk on this new integration to help speed up a routine task faced by busy design and construction teams so they can spend more time creating and collaborating,” said Founder and CEO of 3D Repo, Dr Jozef Doboš. *“3D Repo has a long and ever-expanding list of useful integrations, and we look forward to continually adding value and streamlining the work of our users through our open BIM platform.”*

“To stay on top of project risks, it’s important for teams to remain connected on their design and build plans,” said James Cook, head of integrations at Autodesk Construction Solutions. *“With the new integration, project teams leveraging both 3D Repo and Autodesk Construction Cloud can ensure they are collaborating on the most up to date design and building data to make informed project decisions and minimise risk.”*

AVAILABLE NOW! Opcenter Execution Process 4.2

17 September 2021

Siemens Digital Industries Software announced in a blog post the new and updated features in Opcenter Execution Process 4.2. Alessandro Cereseto writes that new industry templates, business process translation, automation, and user experience enhancements are included in this new release. Read the full details at <https://blogs.sw.siemens.com/opcenter/available-now-opcenter-execution-process-4-2/>.

BETA CAE Systems announces the release of SPDRM v1.5.2

16 September 2021

About this Release

BETA CAE Systems announces the release of SPDRM v1.5.2.

This version delivers a number of enhancements and fixes to the users of the most advanced Simulation Process Data and Resources Management software.

The most important enhancements and fixes are listed below.

Enhancements

License Management

From this version onward, the SPDRM Client can release its license credits when it is idle. This way, the SPDRM user does not need to close the SPDRM Client only to release the license. This change affects interactive (GUI) SPDRM Client sessions only.

Moreover, from now on, the idle timeout should be defined (in minutes) in the administrator options of BETA_LM (license.opt) through the key 'IDLE_USER_TIMEOUT', similarly to all other BETA products. Due to this change, the corresponding key in the SPDRM Client's configuration file

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(taxisprops.xml) turns obsolete.

Script API

The new script function '*process.deleteInstanceWorkflow*' has been implemented to enable the deletion of a workflow instance.

The values *start_date*, *end_date* and *duration* (that correspond to the statistics of a workflow instance) are now returned by the script function '*process.getWorkflowAttributes*', in addition to the values already returned by the function.

Web Services

The new web service '*Remote files not in local site*' in the '*integrity*' tab of the '*SPDRM Web Services*' web page, identifies files that have been imported successfully through a remote site, but failed to be replicated to the local (main) site.

REST API

The '*dm/dmobjects/{id}/contents*' REST endpoint now returns '*400 Bad Request*' in case of invalid requested DM Object.

System Configuration

The new configuration key '*rest_auth_type*' in the SPDRM server's configuration file (*taxis.conf*), controls the authorization type (*SPDRM*, or *LDAP*) during login through REST API.

The new keys '*file_browser*' and '*web_browser*' are now supported in the SPDRM Client configuration file (*taxisprops.xml*) to enable the setup of a custom file browser and/or web browser, to be invoked by the SPDRM Client when required (e.g. open the file browser after the export of files/folders, access the documentation index) .

Known issues resolved

Data Tree

The status of the DM Tree filters was not consistent with the actual filters applied to tree objects, after restarting the SPDRM Client, or switching role/user.

Data Search

The query for DM items could fail in case of Oracle database with large amount of attributes stored.

Data Lifecycle

The system could throw an error while modifying the filtering options in the '*Lifecycle Graph*' .

Process Design / Execution

An unexpected error could occur while attempting to update the drawing of already deleted workflow components.

Process Observer / HPC submission

The Observer node would fail to be finished when it was executed on a remote host, through a BAL (BETA Apps Launcher) server.

The JMA (Job Monitor Assistant) service could stop working due to faulty behavior of the inactivity timer, when the '*idle_user_timeout*' option was enabled in the SPDRM Client's configuration file (*taxisprops.xml*).

Users Management – Security

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Fixed security issues on the auto-login mechanism of the SPDRM Client. Now, the auto-login mechanism relies on the Operating System's API to validate the identity of the logged-in user in a more robust way.

REST API

The '*dm/dmobjects/{id}/contents*' REST endpoint would fail to return the contents of subsystem.

Documentation Updates

Updated installation guide and scripting API guide.

Supported Platforms and System Requirements

The server software of SPDRM is currently available on Linux and MS Windows 64bits.

The client software of SPDRM is running under 64bit flavours of Linux and MS Windows.

The software requires a different license key to the rest of the products of BETA CAE Systems. This license key should be incorporated into the same license file, if such is already installed, and requires beta_lm, the proprietary license manager of BETA CAE Systems.

BIM 360 Cost Management Updates – September 2021

21 September 2021

On September 21, 2021 Ian Turner posted the BIM 360 Cost Management software updates for September to the Autodesk BIM 360 blog.

To read the full post go to the Autodesk BIM 360 blog <https://blogs.autodesk.com/bim360-release-notes/2021/09/21/bim-360-cost-management-updates-september-2021/>.

Cadence Accelerates Development of Mobile, Automotive and Hyperscale Systems with the Helium Virtual and Hybrid Studio

22 September 2021

Cadence Design Systems, Inc. announced the Cadence® Helium™ Virtual and Hybrid Studio, a platform that accelerates the creation of virtual and hybrid prototypes of complex systems. The Helium Studio enables early software bring-up for hardware-software co-verification and co-debug, provides comprehensive support for platform assembly, enables the creation and debug of virtual models and offers a rich library of pre-built virtual models and hybrid adapters. Using the system, verification with a virtual or hybrid model of the SoC is not just orders of magnitude faster than verification with a pure RTL model, it enables early software bring-up before the RTL is available.

Architected to natively integrate with the Cadence verification engines, including the Palladium™ Z2 Enterprise Emulation Platform, the Protium™ X2 Enterprise Prototyping Platform and Xcelium™ Logic Simulator, the new Helium Studio accelerates system development by verifying embedded software/firmware on pure virtual and hybrid configurations even when the RTL is not ready.

Engineers creating next-generation designs, including for mobile, automotive and hyperscale computing applications, need to validate software on a pre-silicon platform to ensure design success and to meet time-to-market schedules. The Helium Studio allows designers to build high-quality virtual and hybrid SoC models. Through the native integration of the runtime software engine with the Helium Studio, the Palladium Z2 platform and the Protium X2 platform, the Helium Studio provides software developers with a uniform debug experience from virtual model to RTL. The Helium Studio features:

- **Virtual studio:** The system allows GUI-based platform assembly for quick and correct-by-

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construction platform creation, enabling early software bring-up. Once the platform is assembled, the virtual studio can be used to execute and debug the software stack and the hardware design.

- **Hybrid studio:** The system allows designers to create hybrid configurations quickly using a rich library of hybrid adapters, transactors and smart memory that optimize communication channels for maximum throughput and are natively integrated in the Palladium and Protium platforms. The new gearshift technology allows users to hot-swap their software bring-up from virtual to RTL, providing high speed when it is needed and high accuracy on the RTL engines when necessary.
- **Virtual model library:** The system offers a comprehensive virtual model library featuring the latest Arm® technology model portfolio, which includes support for Armv9-A, in which designers can access multiple reference and starter virtual and hybrid platforms that are ready to boot on the latest Linux and Android operating systems, accelerating bring-up time for new platforms.
- **Embedded software debug:** The system offers uniform and comprehensive multi-core, multi-process debug of embedded software, allowing designers to have greater control and visibility into the software through use of a single debugger that works with software running on virtual platforms and RTL platforms simultaneously. The native integration of the software engine with the virtual and RTL runtime engines enables synchronized hardware-software debug.

“Validating embedded software concurrently with RTL and earlier in the development process is critical to ensuring the success of next-generation mobile, automotive and hyperscale SoC designs,” said Paul Cunningham, senior vice president and general manager of the System & Verification Group at Cadence. “Our new Helium Studio takes advantage of our best-in-class verification engines, including the Palladium and Protium dynamic duo, to enable fast software development and benchmarking for power and performance validation. This new system provides designers with a unified platform that accelerates overall verification throughput.”

The new Helium Virtual and Hybrid Studio is part of the broader Cadence verification full flow, which includes Palladium Z2 emulation, Protium X2 prototyping, Xcelium simulation, the JasperGold® Formal Verification Platform, and the vManager™ Verification Management Platform. The Cadence verification full flow delivers the highest verification throughput of bugs per dollar invested per day of schedule. The Helium Studio and verification full flow support the company’s Intelligent System Design™ strategy, enabling system innovation.

Customer Endorsements

“The ability to boot a commercially available OS and run industry benchmarks for our latest GPUs and SoCs before silicon is available is critical for our first-pass success and time-to-market goals. Using the Cadence Helium Virtual and Hybrid Studio, which is natively integrated with the Palladium and Protium platforms, we are able to find and fix many software and RTL bugs pre-silicon. The order of magnitude throughput improvement we achieved with the hybrid platform allowed us to perform long-running tests in a pre-silicon environment. The Helium Studio’s unique gearshift technology lets us hot-swap software execution from virtual to RTL dynamically, giving us the software bring-up speed and the accuracy of RTL when needed. The Helium Studio’s embedded software debug capability enables uniform hardware-software co-debug whether running on software on a virtual core or RTL core.”

-Narendra Konda, senior director of Hardware Engineering at NVIDIA

“Our team is always looking for new ways to shift our software development and debug operations

earlier so we can keep up with ever-accelerating time-to-market schedules for our 5G end-device solutions. Using the new Cadence Helium Virtual and Hybrid Studio, we were able to run physical-layer verification for our 5G design and to develop and debug our L2/L3-layer protocol software code two months earlier than our previous designs. We have found that the Helium Studio runs 50-100 times faster in hybrid mode, allowing for quick software code iteration. It natively integrates with the powerful Palladium system capabilities, enabling a smooth transition from virtual to hybrid to full RTL in emulator for hardware and software co-verification, allowing us to accelerate our design schedules by months.”

-Qing Lin, CTO, Cygnus

DXC Technology Collaborates with Qualtrics to Transform the Modern Workplace Experience

22 September 2021

DXC Technology and Qualtrics announced a new collaboration to make the Qualtrics’ EmployeeXM™ experience management platform a part of DXC’s Modern Workplace service solution. Blended with DXC’s Modern Workplace operational data, DXC will capture and integrate experience data from Qualtrics—how employees feel about their technology experience at work—to provide valuable, real-time employee sentiment to drive greater engagement, collaboration and productivity.

DXC will be the first to use the Modern Workplace solution internally to transform the digital experiences for its more than 130,000 employees, the majority of whom are working virtually.

Qualtrics research has found that employees’ technology experience is playing a larger role in the overall employee experience, particularly as the digital workplace continues to evolve. Over 90% of CIOs believe the IT experience is important when it comes to attracting and retaining talent and building corporate culture.

“As a leading provider of Modern Workplace services globally, DXC helps organizations transform and foster collaboration and productivity on any device, anytime and anywhere. Adding the power of Qualtrics’ employee experience technology to DXC’s Modern Workplace is a natural fit to further elevate the value and data provided on experience for our customers and colleagues,” said Mike McDaniel, President, Modern Workplace at DXC Technology. “For our customers and for our own workplace, DXC is committed to putting experience at the center of everything we do and the intelligence we achieve from the Qualtrics platform is a key differentiator of DXC’s services.”

“Experience data is becoming the most valuable data in an organization and is critical to business success today and tomorrow,” said Brad Anderson, Qualtrics’ President of Products and Services.

“Qualtrics is helping some of the world’s leading organizations win the war for talent, and the collaboration between Qualtrics and DXC will help even more companies deliver next-level workplace experiences that increase collaboration, productivity and engagement.”

EdgeVerve’s AssistEdge 19.0 to Empower Human-Digital workforce to Build High-Performance Enterprise

14 September 2021

EdgeVerve Systems, a wholly-owned subsidiary of Infosys, a global leader in next-generation digital services and consulting, recently unveiled the latest version of its Automation platform AssistEdge 19.0. This new version of the platform is designed to support and scale large process automation programs for

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global enterprises. Enterprises can now get empowered with granular process visibility and sophisticated orchestration capabilities to seamlessly integrate bots, human experts, and AI technologies to meet key business objectives.

Intelligent Automation is fast becoming a catalyst in architecting the future of enterprise. However, the real benefits accrue only when Intelligent Automation is adopted at scale. As enterprises move along the automation maturity curve, many consistent barriers arising from disconnected automation implementation, continue to hold them back from adopting automation at scale. To derive sustainable value, organizations need to build capability to deliver personalized customer journeys on a foundation of hyper-efficient execution. This would reshape the enterprise to tap human expertise for empathy and innovation, while leveraging bots for productivity and quality.

AssistEdge 19.0 provides enterprises the opportunity to connect:

- People – Wider connection of people into automation journey through low code platforms for citizen developers and enterprise personal automation assistants.
- Process – Stronger connection of processes into automation journey with end-to-end process orchestration through workflows and auto-automation.
- Data – Deeper connection of data into automation journey through contextual data discovery, intelligent document processing and advanced insights.

“The next frontier in digital transformation will be achieved by integrating business processes across multiple business units. AssistEdge 19.0, a platform best suited for large enterprises, will champion this shift by connecting people, process, data across business units, with insight led decision-making”, said **Sateesh Seetharamiah, Chief Business Officer and Global Head, Edge Products, EdgeVerve Systems Ltd.**

EMA Design Automation and Digi-Key Electronics Collaborate to Offer New Supply Chain-Driven Design Product for OrCAD

16 September 2021

EMA Design Automation®, a full-service provider and innovator of Electronic Design Automation (EDA) solutions and Digi-Key Electronics, which offers the world's largest selection of in-stock and ready-to-ship electronic components, have collaborated to release the OrCAD® Capture Bundle, a special offer available only on digikey.com.

This new design bundle provides the tools, data, and models needed to ensure first pass design success including:

- OrCAD Capture, the industry-standard schematic design solution
- In-design ability to search and select parts from Digi-Key
- Searchable cloud library of schematic symbols connected to Digi-Key parametric data
- Integrated sourcing tools to procure parts quickly and easily from Digi-Key
- OrCAD e-Learning, including certification opportunities

This unique collaboration furthers both EMA’s and Digi-Key’s goal of increasing the efficiency of engineers by providing the tools they need to streamline the design process. Now, engineers can focus on design, eliminate tedious tasks, quickly innovate, and keep the design process moving forward, all within a single unified design environment.

“We have always been focused on improving the engineer’s workflow and providing them access to the data they need as they are making important design decisions,” said Manny Marcano, President and CEO of EMA. “This announcement is an extension of our longstanding collaboration with Digi-key to enable engineers with best-in-class design methodologies and data.”

With the current uncertainty in the global electronics supply chain, it is more critical than ever that engineers have access to the information they need to make informed part decisions. By connecting the vast Digi-Key database of part parametric information with the industry standard in PCB schematic design, engineers now have an integrated “supply chain ready” path to confidently create manufacturable designs quickly and accurately.

“Part availability and lead time are a huge concern for companies around the world,” said Travis Foss, Product Manager, Semiconductors, at Digi-Key Electronics. “Enabling engineers to have a view into this data right at product conception gives design teams the foresight they need to make the right choices and go to production with confidence. Digi-Key is thrilled to be able to offer this unique solution.”

Hexagon radio probe and tool-setting system boosts shop floor efficiency with interactive display and illumination ring for status notifications

23 September 2021

New in-machine measurement technologies released by Hexagon’s Manufacturing Intelligence division significantly increase the variety of probing and tool-setting options for manufacturers looking for efficiency gains in a variety of production environments. Hexagon’s multi-sensor machine tool measurement capabilities now include compact tactile radio probes and a flexible tool-setter that can be used interchangeably to identify and correct production problems early in the production process.

While in-machine measurement makes it easy to collect and quickly apply manufacturing data to work in progress, integrating probes and tool setters that match the requirements of a specific machining environment can be a challenge. Without access to metrology equipment that can accommodate tight machining envelopes, manufacturers strive for efficiency with limited inspection options, often with mixed results. With the launch of a new metrology system that offers both compact tactile measurement and tool-setting capabilities, manufacturers gain the ability to design in-machine inspection processes that fit their needs. Hexagon’s versatile new m&h R-400 multi-sensor radio probe system can be used to fulfil both in-machine workpiece measurement and tool-setting requirements. The system can be used for a variety of purposes in a range of environments, including machining setups with any machine tool, the highly accurate measurement of complex free-form geometries with tight tolerances, and the checking of machine kinematics.

“Manufacturers struggle to gain efficiency with in-machine inspection when they don’t have the ability to customise their measurement processes. The goal of any shop is to squeeze every last drop of efficiency out of the production workflow — and that’s hard to do with one-size-fits-all technology,” said Manuel Müller, product marketing manager, sensors and components. “A customisable and flexible system for in-machine inspection gives companies of any size the power to improve the quality of their products and processes without making disruptive changes.”

The dual-purpose m&h R-400 probe system is the first tactile probe on the market that includes a built-in display. It provides status data at a glance, enables users to save or load settings, and makes it easy to switch between tactile-sensor and tool-setting functions. Designed for shop-floor flexibility, the system can be used as a radio probe by equipping it with a probe shank or as a radio tool setter by mounting it on a tool-setter base. In addition to offering flexible in-machine measurement functions, the probe can

help cut costs by eliminating storage of replacement sensors, as only one device needs to be stored.

The system also features an illuminated ring that completely surrounds the probe body and lights up to indicate current performance conditions and activities, so that operators can easily see the status of the system. Including notifications such as “system ready,” “battery low,” and “probing,” the indicator ring makes shop-floor activity more efficient by providing immediate access to information that benefits workflow.

Designed to perform with precision in tight spaces, the m&h TP-R-400 tactile radio probe is available with three different measuring units. Configured for varied levels of accuracy and different styli configurations to suit specific measurement needs, the system is available with standard or highly accurate measuring units. Additionally, an extension of up to 200 mm in length can be used to bring the measuring unit closer to the measurement area. Despite the modularity and unique handling functions, the probe is extremely compact. With a diameter of only 40 mm, it fits into almost every tool magazine and is perfectly suited for use on small machines or applications with limited space.

The tool-setter m&h TS-R-400 can be mounted flexibly in the machine space to suit different inspection needs. For instance, it can be secured to a rotary table with a slot nut so that it remains stationary even when the table is moving. It can also be mounted on a magnetic base so that it can be removed when not in use, such as after initial tool checks prior to the machining process.

Infosys Collaborates with ServiceNow to Provide Enterprise-Level Service Management for Manufacturing Customers

21 September 2021

Infosys, a global leader in next-generation digital services and consulting, announced its collaboration with ServiceNow, the leading digital workflow company that makes work, work better for people, to provide enterprise-level service management for customers in manufacturing industries. Through this collaboration, Infosys will leverage its industry cloud blueprints, part of Infosys Cobalt, and deploy ServiceNow Operations Technology Management (OTM), to support manufacturing industries as they digitize their factories, floors, and plant operations.

As part of this collaboration, Infosys will harness its Enterprise Service Management (ESM) Café, built on the Now Platform, along with ServiceNow OTM, to improve resilience and availability of critical OT systems across the manufacturing landscape. This collaboration will also be extended to address the OTM, factory and operations digitization needs of customers across CPG, energy, and retail sectors.

Recently, Infosys and ServiceNow collaborated with Carrier Global Corporation, the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions, to help them achieve their goal in spinning-off from their parent company UTC. Infosys Cobalt’s ESM Café helped transform Carrier’s IT, HR service desk, and security operations in the established time frame. Carrier selected Infosys for its expertise in transforming legacy environments with the Now Platform, speed of execution, and ability to fast track large-scale implementations beyond IT.

Polly Fabry, Senior Director, Digital, Carrier said, “Today, manufacturing industries are looking to explore how latest cloud technologies can be used to accelerate digital transformation, optimize supply chains, improve factory performance, accelerate product innovation, and enhance service offerings. Infosys’ expertise in harnessing the full potential of ServiceNow’s platform, through its Cobalt portfolio, made them our partner of choice. We believe that the collaboration between Infosys and ServiceNow will enable us to find faster, more innovative ways to respond to changing markets and drive business resilience.”

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Narsimha Rao Mannepalli, Executive Vice-President, Head of Cloud & Infrastructure Solutions and Infosys Validation Solutions, Infosys said, “Digital transformation in manufacturing industry has never been more critical than now. Given the current scenario, there is an increased need to drive business innovation at speed to be future-ready while also optimizing existing operations and reducing costs across the value chain. With the power of Infosys Cobalt and our elite collaboration with ServiceNow, we will help bring multi-fold business benefits for our clients.”

Binoy Gosalia , Global Head of Industry Partnerships, ServiceNow said, “Speed and agility are critical for maintaining OT security. Infosys Cobalt’s Enterprise Service Management Café accelerates its manufacturing clients’ ServiceNow journey with an AI-powered plug-and-play deployment solution. We look forward to our continued collaboration enabling manufacturers to navigate and succeed in today’s rapidly changing environment.”

Jasmeet Singh, Executive Vice President and Global Head of Manufacturing, Infosys, said, “We are delighted to deepen our longstanding relationship with ServiceNow through this collaboration. Building on our deep manufacturing industry expertise, we will help maximize OT asset visibility and cybersecurity which are crucial capabilities for adopting smart manufacturing. ESM Café will fundamentally change how organizations harness technology to augment their production processes and transform them into factories of the future.”

Materialise Introduces Dental Module for Magics — Automating 3D Printing Preparation in Dental Labs

21 September 2021

Materialise, a global leader of 3D printing solutions, has introduced its new Dental Module for Magics. This addition to the industry-leading Magics software is designed to enable dental labs to fully optimize and automate their 3D printing preparation workflow for dental applications.

With dentistry becoming more digitalized, Dental Module provides dental labs with the easy-to-use tools required to ensure a scalable 3D printing process.

“3D printing has become well established within dentistry,” says Volker Schillen, Market Innovation Manager at Materialise. “Today, many dental labs have their own printers and create custom parts for dental restoration daily. Their next goal is optimizing the workflow so dental specialists can reduce the amount of time spent manually preparing designs to be printed. With automated tools, specialists can instead use this time on other valuable responsibilities, such as meeting with patients.”

After uploading dental CAD designs to the platform, the user simply clicks a button, and the software automates all the required printing preparation steps, such as labeling, nesting, and generating support structures. Tasks that could take hours to complete manually are finalized within a couple of minutes. The module also provides advanced control over processing steps through customizable processing profiles. Users can take advantage of Magics’ versatile capabilities to further refine automatically generated results or process applications not supported by the Dental Module in a tailored manner, if necessary.

As a leader in 3D printing software solutions, Materialise helps customers within a wide range of industries optimize their additive manufacturing activities. After this newest addition, there are now ten modules available for Magics users. Dental Module joins a line-up of solutions that offer automated printing preparation tasks such as support generation and 3D nesting.

New partnership of VidiPlus & CADENAS brings interactive 3D CAD models to life in video conferences

23 September 2021

3DfindIT.com manufacturer components simplify and enliven virtual engineering meetings

For more than a year now, online meetings have become the norm. According to a US study, the number of virtual meetings in 2020 increased by almost 13 percent per person compared to the previous year. This also applies to the engineering sector, where details for designs and planning are increasingly being coordinated on screen. In order to keep the respective components and parts always in view, VidiPlus Ltd. and CADENAS GmbH have developed a joint solution: From now on, the interactive 3D CAD & BIM models from CADENAS' technical search engine 3DfindIT.com can be directly integrated into video conference of most common meeting platforms (e.g. Zoom, Google Meet, Microsoft Teams, GoToMeeting, Click Meeting). Thanks to the new integration, components from 3DfindIT.com can be easily inserted into VidiPlus via drag & drop. The CAD models can be sliced, rotated, zoomed in and out or can be made transparent for optimal presentation.

"The new integration optimizes video meetings by presenting detailed models of the components, even simultaneously, without losing sight of the audience," says Dror Benjamin, Founder & CEO of VidiPlus Ltd.

3DfindIT.com powered by CADENAS is the next dimension visual search engine that searches billions of 3D CAD & BIM models in thousands of manufacturer catalogs available worldwide. With its intelligent search functions and free CAD & BIM data download, 3DfindIT.com is the indispensable platform for architects, planners, engineers and designers. The 3D CAD models powered by CADENAS are also available in many other software solutions and CAD systems.

VidiPlus is an industry-leading visual aid software for video conferences, that helps bring back people into the conversation and grab their attention.

Over 350,000 Projects Turn to Autodesk Construction Cloud for Preconstruction Workflows

23 September 2021

Autodesk, Inc. announced that more than 350,000 projects across the globe are using Autodesk Construction Cloud to power more effective preconstruction workflows, including document management, bid management, quantification, model coordination and design collaboration. The company also announced a series of product updates, doubling down on its commitment to unify the construction process and empower teams to build better.

Owners, general contractors and specialty contractors alike, across all industry segments around the world, turn to Autodesk Construction Cloud for their preconstruction workflows. DeAngelis Diamond, Windover Construction, Inc. and Granger Construction are three such companies using Autodesk Construction Cloud to supercharge workflows for bid leveling and risk mitigation, model conditioning, quantification, design collaboration, model coordination and more:

- DeAngelis Diamond – a national construction management firm specializing in commercial, multi-family and healthcare construction with offices across Florida, Tennessee, Alabama and Michigan.
- Granger Construction – a Michigan-based construction management firm specializing in education, commercial, industrial, healthcare and the public sector.

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- Windover Construction, Inc – a full service, employee-owned firm that provides comprehensive preconstruction planning, estimating, design-build, virtual design and construction management service in the education, healthcare, commercial, senior living and hospitality spaces.

"Mistakes made in preconstruction become exponentially more expensive when they are discovered in the field," said Zac Hays, head of preconstruction product at Autodesk Construction Solutions.

"Autodesk Construction Cloud arms preconstruction teams with best-in-class solutions to help mitigate risk and reduce rework, whether it's reducing the total number of RFIs, increasing collaboration between the design and planning phases or using machine learning and predictive insights during the bidding process within BuildingConnected."

"Any contractor knows that risk mitigation during the preconstruction phase is one of the most critical factors to success, and a big part of that is bid leveling," said Brett Diamond, CIO and principal at DeAngelis Diamond. "BuildingConnected not only gives us access to a robust network of specialty contractors, but also makes collaboration with our estimating team seamless and provides valuable insight into our historical bidding data. Combined with TradeTapp's machine learning and AI technology to evaluate and mitigate risk, BuildingConnected allows us to reduce our rework, stay on time, on budget and be more nimble and efficient as an organization."

Autodesk Construction Cloud is a cloud-based construction management solution that offers an end-to-end platform to manage every phase of the building lifecycle, from design and plan, to build and operate. For the design and plan phases of construction projects, Autodesk Construction Cloud supports:

- **Bid management and qualification** – bidding teams can access the largest real-time construction network with an easy-to-use platform that streamlines the bid and risk management process, while utilizing machine learning to help identify, quantify and provide risk mitigation insights.
- **Design Collaboration** — multi-disciplinary teams can update designs in the same place, at the same time. With controlled package sharing, team WIPs, issue identification and design change notifications, teams will always be up to date with the latest design content.
- **Model coordination** – designers, engineers, BIM experts and trades can easily contribute to model coordination using automatic clash detection, clash grouping and tolerances, an issues solution that connects tools like Navisworks and Revit to the cloud and an aggregated model that can be reviewed by discipline, relevant sections or a first-person walk through.
- **Model conditioning** – teams can easily add custom data to a given model and classify and organize project data, turning a design into a construction-ready model that can be easily broken down into relevant scopes for downstream activities.
- **Quantity takeoff** – estimating teams can perform 2D and 3D quantification workflows from a common data environment to increase collaboration, speed and accuracy during the estimation process.
- **Document management** – Autodesk Construction Cloud provides a common data environment that helps teams organize, distribute and share files on a single, connected document management platform, ensuring all team members have access to the information they need.

New Takeoff API allows users to leverage quantities from Autodesk Takeoff externally

Autodesk Takeoff has released a beta API that allows estimating teams to leverage quantity takeoff data and project information directly from Autodesk Takeoff and integrate it into existing solutions. With this new API, teams can now extend the life of takeoff data to inform project decisions and power

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downstream workflows while breaking down barriers and providing added flexibility.

"Along with being able to visualize our takeoffs in both 2D and 3D, Autodesk Construction Cloud's common data environment gives our team a big advantage when it comes to quantification," said Amr Raafat, vice president of VDC and technology at Windover Construction. "Knowing that our team is working from the most up to date information, from a single source of truth, allows us to enhance our collaboration and deliver more accurate and complete quantity takeoffs."

Autodesk BIM Collaborate adds functionality to better identify design and constructability issues

Autodesk BIM Collaborate, a solution that enables project teams to easily manage coordination and design review workflows from the cloud, has also announced new updates that will help teams be able to quickly identify and resolve design and constructability issues throughout the building lifecycle. These updates include:

- **A new clash tolerance filter**, which allows individuals on the project team to check their work using dynamic clash tolerance filters—making it easier to focus on larger clashes at first, while getting more detailed as you go.
- **Issues in Design Collaboration** for architects, engineers and BIM experts to identify 3D issues in the design phase—adding relevant issue details, assignments, comments and due dates to be resolved in Revit or passed on to the coordination phase. 2D issues are also available for digital markup of 2D sheets with shapes, text, measurements, photo references and issue pins during design review.

"Information siloes between general contractors and trades have historically been a massive challenge for those of us working in preconstruction," said Darrah Leach, VDC Manager at Granger Construction. "Building a bridge between the two with collaborative features allows us to work not only cross functionally, but with partners outside of our own organization. This helps connect us in ways that simply were not possible before and, at the end of the day, helps us speed up our delivery time. Autodesk BIM Collaborate acts as that bridge between project partners and allows us to work in lockstep as broader team."

Assemble now supports publishing directly from Autodesk Docs

In line with offering a model conditioning solution that allows BIM and VDC Managers to organize, customize and share model data with key stakeholders for downstream workflows, Assemble users can now publish Revit models directly from Autodesk Docs and BIM 360 Docs to Assemble without using Revit or any publisher add-ins. This greatly reduces duplication of efforts by leveraging the common data environment and helps ensure everyone is working from the latest project documents.

"As technology pushes the envelope of what's possible in construction, preconstruction has truly become a secret weapon that allows teams to improve their margins, speed up delivery times, reduce risk and deliver projects with more precision," said Jim Lynch, senior vice president and general manager, Autodesk Construction Solutions. "Autodesk Construction Cloud delivers a suite of preconstruction products that are bound together by a common data environment – making collaboration seamless and breaking down siloes that lead to costly mistakes and rework. We're excited to be powering the future of preconstruction and look forward to continue delivering on our promise of building better, together."

Samsung Foundry Certifies Synopsys PrimeLib Unified Library Characterization and Validation Solution at 5nm, 4nm and 3nm Process Nodes

22 September 2021

Synopsys, Inc. announced that Samsung Foundry certified the Synopsys PrimeLib™ unified library characterization and validation solution at 5-nanometer (nm), 4nm and 3nm process technologies, meeting advanced compute demands for next-generation designs spanning high-performance computing (HPC), 5G, automotive, hyper-connectivity and aerospace and defense applications, as well as artificial intelligence (AI) chipsets. The certification includes accreditation of PrimeSim™ Continuum, a foundation of the Synopsys Custom Design Platform and integrated simulator technology embedded within the PrimeLib solution, delivering a seamless simulation experience to achieve golden-signoff quality.

With compute demands growing 3x as each node advances, library characterization complexity has dramatically increased. As key features of the PrimeLib solution, advanced machine-learning (ML) algorithms and an adaptive flow generate accurate statistical variation models at ultra-low voltage corners up to 5x faster than previous generations, while reducing overall compute cost. The next-generation solution also includes innovative SmartScaling technology for multi-PVT characterization, built on top of the Synopsys PrimeTime® scaling engine to enable instant library generation with minimum characterized corners.

"We are committed to providing our customers with the most innovative technology solutions to address the challenges of growing design and modeling complexity at 5nm and below," said Sangyun Kim, VP at Samsung Foundry. "The Synopsys PrimeLib library characterization and validation solution enables us to deliver signoff-quality libraries for these advanced nodes up to 5x faster. This enables our mutual customers to accelerate the overall chip design schedule and tape out achieving optimal power, performance and area goals."

To keep up with growing market needs for optimized chip performance, high-quality libraries at advanced process nodes and cloud readiness for system design, accuracy requirements at 5nm down to 3nm need effective library characterization cycles of advanced models like electro-migration (EM), aging and liberty variation format (LVF). Additional global variation to target next-generation applications result in changes in process, voltage and temperature (PVT) that significantly impact chip design. Ultimately, these changes lead to increased compute strains that require extensive support during peak demand requirements of process design kit (PDK) change, adversely affecting the delivery time for designs.

PrimeLib library characterization supports advanced models like moment-based LVF, aging and EM, offers captive simulator license support for characterization and superior scalability to existing solutions by delivering up to 5x faster turnaround time (TAT) beyond 100,000 parallel jobs on the cloud or a compute cluster. The PrimeLib solution leverages embedded PrimeSim SPICE and HSPICE engines, integrated with validation capabilities to produce PrimeTime golden signoff-quality libraries and PrimeShield® design robustness analysis.

Key product features and customer benefits include:

- Advanced ML models with up to 5x LVF performance improvements to accurately account for effects in ultra-low PVT corners. Cloud-ready support with superior scaling technology to reliably handle any workload while reducing TAT from weeks to days.
- SmartScaling technology for multi-PVT corners to lower characterization runtime by 3x to 10x

and enable instant library generation.

- Embedded PrimeSim SPICE engine and signoff validation capabilities to produce PrimeTime golden signoff-quality libraries, correlation, constraint and power validation.
- ML-based augmented sensitivity database to enable faster time-to-market for an updated PDK.

"Successful IC design requires high-quality libraries, and Synopsys PrimeLib provides a comprehensive set of capabilities that allows customers to confidently scale with evolving industry demands," said Sanjay Bali, vice president of Product Marketing, Digital Design Group at Synopsys. "We value our continued collaboration with Samsung Foundry to support delivery of best-in-class process technologies and believe this certification is a testament to our continued efforts in innovation, accelerating high-performance designs for our mutual customers."

Synopsys Advances Processor IP Leadership with New ARC DSP IP Solutions for Low-Power Embedded SoCs

20 September 2021

Highlights of this Announcement:

- Synopsys ARC 128-bit VPX2 and 256-bit VPX3 DSP IP are based on same advanced VLIW/SIMD architecture as higher performance 512-bit VPX5, providing greater flexibility for specific application requirements
- Portfolio includes safety-enhanced implementations that meet random fault detection and systematic functional safety development flow requirements for full ISO 26262 compliance up to ASIL D
- MetaWare Development Toolkit with C/C++ compiler and associated libraries supports vector length-agnostic programming to accelerate code development and portability
- Attend the ARC Processor Virtual Summit on September 21 – 22, 2021, to learn more about the new ARC VPX DSPs and hear about the latest technologies and trends in processor IP

To address the broader range of power, performance and area (PPA) demands of embedded applications, Synopsys, Inc. announced it has expanded its DesignWare® ARC® Processor IP portfolio with new 128-bit ARC VPX2 and 256-bit ARC VPX3 DSP Processors. Based on the same VLIW/SIMD architecture as the company's higher performance 512-bit ARC VPX5 DSP processor, the new additions deliver up to two-thirds lower power and area. The ARC VPX DSP IP family now provides greater flexibility for designers to optimize their designs based on the unique power, performance and area (PPA) requirements of embedded workloads such as IoT sensor fusion, radar and LiDAR processing, engine control, voice/speech recognition, natural language processing and other edge AI applications.

"AI-enabled devices have an increasing need for specialized processors that can handle a variety of DSP and machine learning workloads with a high degree of energy efficiency," said CL Chen, COO at Neuchips, a leading AI domain specific compute solutions startup in Taiwan. "By expanding the ARC VPX processor family to support a range of vector lengths, Synopsys enables designers targeting a broader set of applications to implement high-performance signal processing in their designs."

"By expanding the ARC DSP processor portfolio with support for smaller vectors, Synopsys is enabling signal processing and AI in size, power, and thermally-constrained systems," said Jim McGregor, Principal Analyst at Tirias Research. "In addition, the ultra-high floating-point performance and functional safety compliance of the VPX processors make them especially well-suited for the growing number of IoT applications like automotive, medical systems, and industrial automation. Synopsys'

ARC processors have been used by over 250 customers worldwide who collectively ship more than 2.5 billion ARC-based chips annually."

Scalable and Highly Configurable DSP Processors

The smaller vector-length ARC VPX2 and VPX3 DSP processors, optimized for highly parallel processing with minimal energy and area consumption, are available in single- or dual-core configurations to address a broad range of application requirements. Each VPX core contains a scalar execution unit and multiple vector units that support 8-bit, 16-bit and 32-bit SIMD computations. The VPX DSPs support half-, single-, and double-precision floating point formats, and up to three floating point pipelines are available in each VPX core. The unique hardware acceleration for special math functions used in linear and non-linear algebra functions deliver high-precision results. The new VPX DSPs include enhancements to the instruction set architecture (ISA) and load/store bandwidth to deliver up to twice the performance of existing offerings for common DSP functions such as fast Fourier transforms (FFTs). In addition, the safety-enhanced ARC VPX2FS and VPX3FS integrate hardware safety features including error correction code (ECC) protection for memories and interfaces, safety monitors and lockstep mechanisms that help designers achieve the most stringent levels of ISO 26262 ASIL B, ASIL C and ASIL D functional safety compliance.

Comprehensive Software Development Environment

Like all Synopsys ARC processors, the VPX2 and VPX3 processors are supported by the Synopsys ARC MetaWare Development Toolkit, which provides a vector length-agnostic software programming model specifically optimized for the VPX hardware architecture. The MetaWare compiler's auto-vectorization feature transforms sequential code into vector operations for maximum throughput. Together with a robust set of software libraries that include DSP, machine learning and linear algebra functions, the MetaWare Development Toolkit delivers a comprehensive programming environment that accelerates time to optimum results and simplifies software portability.

"We continue to build on our industry leadership by expanding the DesignWare ARC processor family with the latest VPX DSP processors," said John Koeter, senior vice president of marketing and strategy for IP at Synopsys. "Synopsys provides designers with a full range of scalable, software-compatible DSP IP solutions that address the varying performance, power and area requirements across a chip family."

The broad Synopsys DesignWare IP portfolio includes logic libraries, embedded memories, IOs, PVT monitors, embedded test, analog IP, interface IP, security IP, embedded processors and subsystems. To accelerate prototyping, software development and integration of IP into SoCs, the company's IP Accelerated initiative offers IP prototyping kits, IP software development kits and IP subsystems. Synopsys' extensive investment in IP quality and comprehensive technical support enable designers to reduce integration risk and accelerate time-to-market.

Availability

- The Synopsys DesignWare ARC VPX2 and VPX3 DSP Processor IP is scheduled to be available to lead customers in calendar Q4 2021.
- The Synopsys DesignWare ARC VPX2FS and VPX3FS Processor IP is scheduled to be available to lead customers in calendar Q1 2022.

ARC Processor Virtual Summit, Sept 21-22, 2021

The ARC Processor Virtual Summit will deliver all the practical knowledge you need to meet your unique PPA requirements. The summit includes a special keynote, TinyML and Efficient Deep Learning

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from Song Han, assistant professor of EECS at MIT. Han will teach TinyML techniques to help you address artificial intelligence's (AI's) extraordinary requirements for data, computation, and power in a way that will make your designs greener, faster, more efficient, and sustainable.

Vectorworks, Inc. Launches 2022 Version of BIM and CAD Product Line

15 September 2021

Global design and BIM software provider Vectorworks, Inc. releases Vectorworks 2022 emphasizing product quality improvements, superior performance and the user experience. This latest release includes Vectorworks Architect, Landmark, Spotlight, Fundamentals, Braceworks, ConnectCAD and Vision.

In addition, Vectorworks reveals its comprehensive solution for designers working within multiple industries has been renamed to accurately reflect its full range of design and BIM capabilities. Vectorworks Design Suite, formerly Vectorworks Designer, offers all the up-to-date features of Vectorworks Fundamentals, Architect, Landmark and Spotlight, providing the entire suite of technology in one interface.

“Vectorworks 2022 is an invitation to embrace the exceptional flexibility and interoperability that is expected of our purpose-built, design-focused products,” said Vectorworks CEO Dr. Biplab Sarkar. “When you dive into all the advances in the product line, you can see how we are constantly investing in developments that deliver workflow freedom to designers and creators throughout the architecture, landscape, interiors and entertainment design industries.”

The Vectorworks 2022 product line includes improvements focused on next-gen tech, 3D and BIM workflows, interoperability, landscapes and GIS and entertainment design workflows.

Next-Gen Tech

With Vectorworks 2022, the main areas of development in core technologies and interfaces make Vectorworks products faster and more intuitive, while also providing the stability and accuracy required for maximum efficiency. Vectorworks is the first major BIM application to run natively on Apple silicon processors. Testing of Vectorworks 2022 has shown speed increases of two to four times.

Additional improvements in this area include full use of Metal on Mac and DirectX on Windows in the Vectorworks Graphics Module, Maxon’s Redshift Render Mode and a new Direct Link to Twinmotion. Plus, a redesign of the attribute and snapping palettes and new per-face texture mapping support an intuitive process for creating and visualizing designs.

3D and BIM Workflows

Vectorworks continues to provide design-focused tools for BIM workflows that work for all designers. Direct editing improvements to the stair tool help simplify the process of designing complex objects. Updates to the worksheet database and data manager provide a consistent interface, better visual cues, a new search mode and an improved formula bar with a new set of functions to help make generating targeted reports, schedules and material take offs easy. With a focus on re-engineering and the modernization of core architectural objects like wall components and data reporting to support the creation of accurate BIM models, Vectorworks 2022 offers improvements to your workflow for greater precision, control and accuracy for both the visual model and the corresponding data.

Interoperability

Vectorworks takes pride in being a design hub and continues to invest in optimizing the most-used file formats, supporting value-added partner products and ensuring that project teams and BIM collaboration

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remain unrivaled. Version 2022 includes improvements to the DWG file import to support Civil 3D, DWG and GIS georeferencing. Additionally, IFC import/export capabilities are enhanced for improved quantity takeoffs and GIS workflows.

Landscape and GIS

As the BIM platform of choice for landscape architecture, Vectorworks Landmark 2022 delivers more options for accurate modeling reflective of real-life design considerations. Improvements to the site model make it easier to define and report on soil layers. Updates to the plant tool, hardscape objects, and integrations with Esri make it easier to produce landscape BIM models that leverage GIS workflows while meeting the demand to create sustainable sites.

Entertainment

Our commitment to users in the entertainment industry is to invest first and foremost in re-engineering for better file performance and to provide highly responsive tools. Version 2022 of Vectorworks Spotlight, Braceworks, ConnectCAD and Vision has greater consistency between tools and functionality focused on simplifying processes such as cable and power planning to make your overall workflow efficient. This latest release also delivers many usability enhancements such as better controls on the camera tool, a position name field for truss and context menus for shifting data around. Improved placement and direct editing of objects in Schematic Views makes day-to-day documentation work in Vectorworks Spotlight faster and more intuitive.

The English-language editions of Vectorworks, Braceworks, ConnectCAD and Vision 2022 are available today. The release of localized language versions will begin in October and conclude the first quarter of 2022. For more information about the availability of Vectorworks 2022 in other markets, contact your local Vectorworks distributor. Vectorworks Service Select and subscription users will receive upgrades to Vectorworks 2022 as soon as the product is released in their local markets.

Zemax 21.3 Supports Modeling Complex Geometries

21 September 2021

Zemax announces the latest releases of their flagship software, OpticStudio®, the OpticStudio® STAR Module, and OpticsBuilder™. This release continues our commitment to deliver regular updates to our customers. Zemax has delivered three major product releases in 2021, the first in January (21.1) followed by the May release (21.2) and now the September (21.3) release.

OpticStudio 21.3: New Off-axis Mirror object, project directories, and more secure file format

OpticStudio 21.3 includes native support for off-axis conic aspheric mirrors in non-sequential mode. While such objects are commonly used within aerospace and defense, they are seeing increasing use in the design of optical systems across a host of other applications as they can provide high performance at a smaller size. Non-sequential support for off-axis aspheres, as well as for complex aspheres such as the Q-type asphere added in the 21.2 release, enables the as-built performance of systems using these "modern geometries" to be accurately characterized, allowing engineers to account for the impacts of realistic sources, stray light, and opto-mechanics. Non-sequential support is also critical in supporting an integrated design workflow between OpticStudio, CAD, and finite element analysis (FEA).

We have also upgraded the way you manage and archive OpticStudio project files. In the 21.3 release, you will see support for a new capability called a Project Directory that simplifies the challenge of sharing and collaborating on the hierarchy of files included in an OpticStudio design. The Project Directory allows auxiliary files associated with the OpticStudio design to be stored in the same location

as the OpticStudio file. While these auxiliary files will still be stored within a folder hierarchy, the hierarchy can be saved and shared within a single archive file and automatically reproduced when restoring the archive file. We currently support the most commonly used auxiliary files in the Project Directory, including glass catalogs, coating files, CAD files, and scatter files. Other auxiliary design files will be added to the Project Directory capability in future releases.

Security is an essential component of collaboration. In the 21.3 release, the default file format has been updated. This new, more secure binary file format uses the ZOS file extension. Currently, the ZOS format saves all the same data that is saved in ZMX files, but we have designed the new format to anticipate new functionality that may be added to future releases. Design files can still be saved in the ZMX file format in the 21.3 release, and the 21.3 release (as well as future releases) will continue the ability to read ZMX files.

OpticStudio STAR Module 21.3: FEA data set location flexibility and deformation vector arrows

Earlier this year, we introduced the OpticStudio Structural, Thermal, Analysis and Results (STAR) Module, which simplifies and streamlines workflows by allowing the import of finite element analysis (FEA) data sets into OpticStudio for native assessment of structural and thermal impacts on optical system performance.

With 21.3, we have extended these capabilities. You can now:

- Load FEA data saved in any coordinate system. This capability enables you to use the STAR Module seamlessly with any FEA data regardless of the coordinate system in which it has been saved, even if that is not in the local or global coordinate system of the OpticStudio design.
- Visualize magnitude vectors from surface deformations. We have added vector arrows to the deformation magnitude plot in System Viewer; you can now clearly see the direction of each deformation, and the vector length is shown as proportional to the impact.

With the 21.3 release, we have also provided the STAR Module user interface in Japanese or Chinese, to better support users in those regions.

OpticsBuilder 21.3: Compound/Boolean object positioning and source/detector visualization

The latest release of OpticsBuilder allows for modification of the position and orientation of Compound and Boolean optical components and lets you visualize sources and detectors in the graphics area of the UI when these elements are selected in Optics Manager. Compound and Boolean components are created from geometries that do not have a native non-sequential counterpart in OpticStudio, often for complex geometries such as mirrors with asymmetric or off-axis apertures. The freedom to reposition such objects in your optomechanical design is critical to accommodating spatial constraints. For sources and detectors, the OpticsBuilder UI now features "at a glance" aids in the OpticsBuilder UI that provide a visual reference for confirming the object you currently have selected.

In addition, OpticsBuilder 21.3 provides enhanced ease of use in the Optics Manager, as well as in the Boundary Rays and Mechanical Edge tools. The Optics Manager now lists static and simulation rays separately, and the Boundary Rays tool identifies boundary rays as static. Improvements to the Mechanical Edge tool let you dynamically change the outside diameter for an object by entering new mechanical edge values and uses left/right (rather than numeric) notation to help you better understand which edge you are adjusting at any time.

The 21.3 release also includes a new SOLIDWORKS cell phone camera lens sample file that demonstrates the use of customized mounting edges for injection molded lenses. Customized edges reduce the overall size and weight requirements for an optomechanical design by enabling the lens to

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snap into the assembly without requiring additional mechanical components to hold it in place. New SOLIDWORKS sample files for a rifle scope, an ultra-short throw (UST) projector, and the latest Heliar lenses are also included with this release.