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Acquisitions

Synopsys Acquires ExpertIO

23 January 2012

[Synopsys, Inc.](#) announced that it has closed the acquisition of ExpertIO, Inc., a leading independent provider of verification IP (VIP) for industry standard protocols. The addition of ExpertIO's team of protocol experts and its strong portfolio of storage VIP will accelerate Synopsys' delivery of a broad line-up of high-performance, easy-to-use, full-featured VIP that can help designers address their growing verification challenges. The terms of the deal have not been disclosed.

With leading SoC designs deploying more complex protocols, VIP has become a critical component of the verification environment. Synopsys is focused on delivering a broad portfolio of leading standards-based VIP to help engineers address the growing verification challenges associated with creating today's 'smart' electronics. VIP provides functional models of on- and off-chip protocols that verification engineers use to test all of the interfaces on an SoC before manufacturing. It enables the engineer to verify how an interface conforms to published standards and also allows the engineer to verify the interactions among various interfaces on an SoC.

"ExpertIO is a recognized leader in the delivery of storage protocol VIP with a team of veteran engineers that has been at the forefront of driving its underlying standards," said Manoj Gandhi, senior vice president and general manager of Synopsys' Verification Group. "By acquiring ExpertIO, Synopsys adds a new set of storage protocols to our expanding VIP portfolio, plus an experienced team of development experts to help us drive the next level of innovation in VIP technology."

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ExpertIO's entire team of engineers is joining Synopsys' Verification Group. Craig Stoops, ExpertIO's Founder and CEO, is joining the team as a technical leader helping drive Synopsys' VIP roadmap.

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CIMdata News

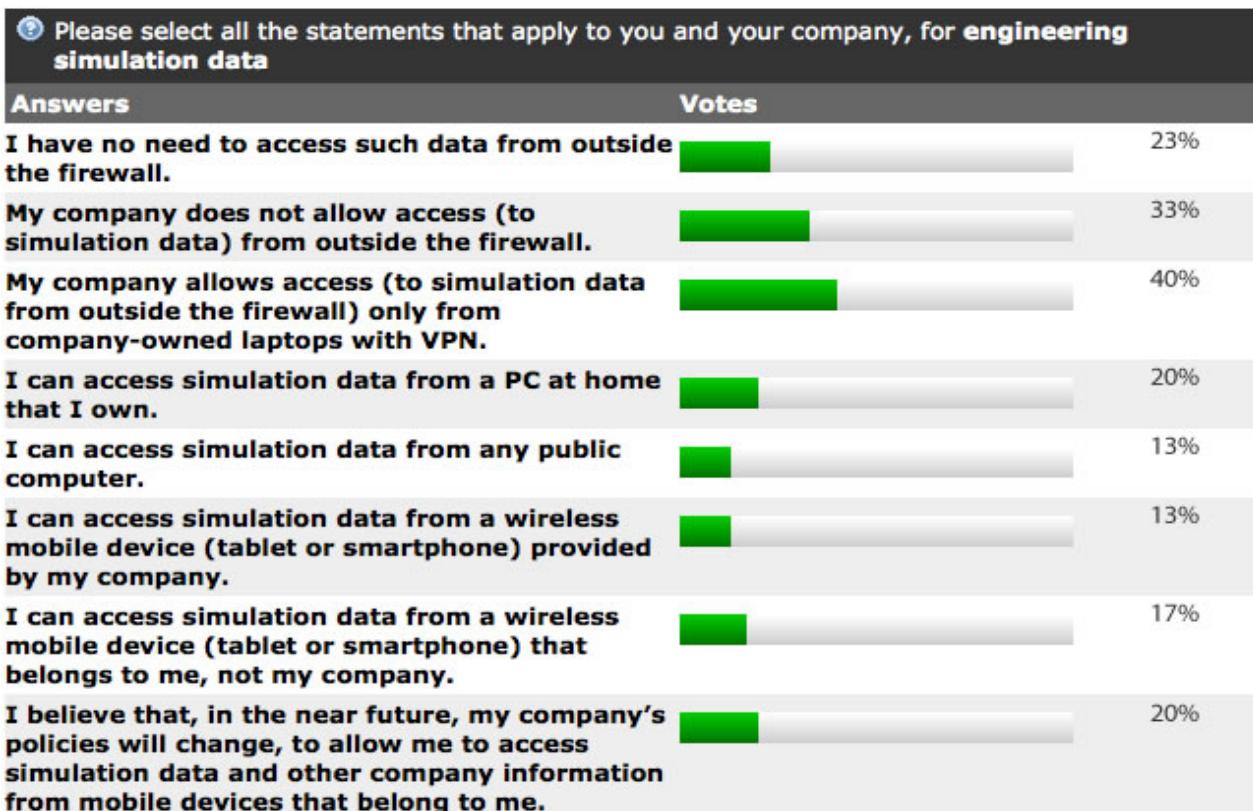
The Mobility Revolution: What does it mean for CAE? (Poll Results)

27 January 2012

Access to simulation information from mobile devices. There is no mistaking the consumer trend – consumers expect their mobile devices to be continuously connected to always-available information and resources in the cloud. What does this mean for simulation (CAE)?

Many companies have security policies that prohibit access to engineering data from outside their firewall. What are your company's policies?

Suppose there were an app available for your smart phone that allowed you to check the status of simulations running on a high-performance cluster. Suppose there were an app available that would allow you to check, through lightweight post-processing, whether a simulation run has been successful.



CIMdata Commentary:

With the mobility revolution, consumers expect their mobile devices to be continuously connected to always-available information and resources in the cloud. What does this mean for simulation (CAE)?

The latest CIMdata poll looked at company policies regarding access to simulation data. Three fourths

CIMdata PLM Industry Summary

of respondents said their companies allow access only from company-owned devices. Of these, a majority do allow access from outside the firewall via VPN. Only one in six said that they are able to access simulation data from a portable device owned by the employee, not the company. However, one in five believes their company's policy will soon change to allow such access.

These prevailing policies for company data access are clearly at odds with the expectations consumers have for mobile devices. As the new, younger crop of engineers currently being educated enter companies, we expect them to place more demand on the freedom of data access to which they have become accustomed through their ubiquitous use of social media and smart phones. Companies will need to adopt new methods and policies to assure that they can make best use of their employees and retain their services in the long term. Of course, we do not expect this type of change to occur where data and processes are of a very highly sensitive nature. It will also be interesting to see how these policies evolve as mobile simulation applications become available. CIMdata previously said, "The future of mobile devices as a data delivery device in a PLM context appears to be very bright and we expect their use to increase significantly over the next three to five years." It is perhaps too early to form an opinion on the extent to which simulation will participate in reaping the productivity and collaboration benefits of the mobility revolution.

NOTE: The results of these polls are anecdotal, not scientific.

If you have a suggestion for a poll you'd like to see contact us at info@cimdata.com.

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"PLM for AEC: A Better Way to Manage Buildings" by Peter A. Bilello, President, CIMdata Inc.

25 January 2012

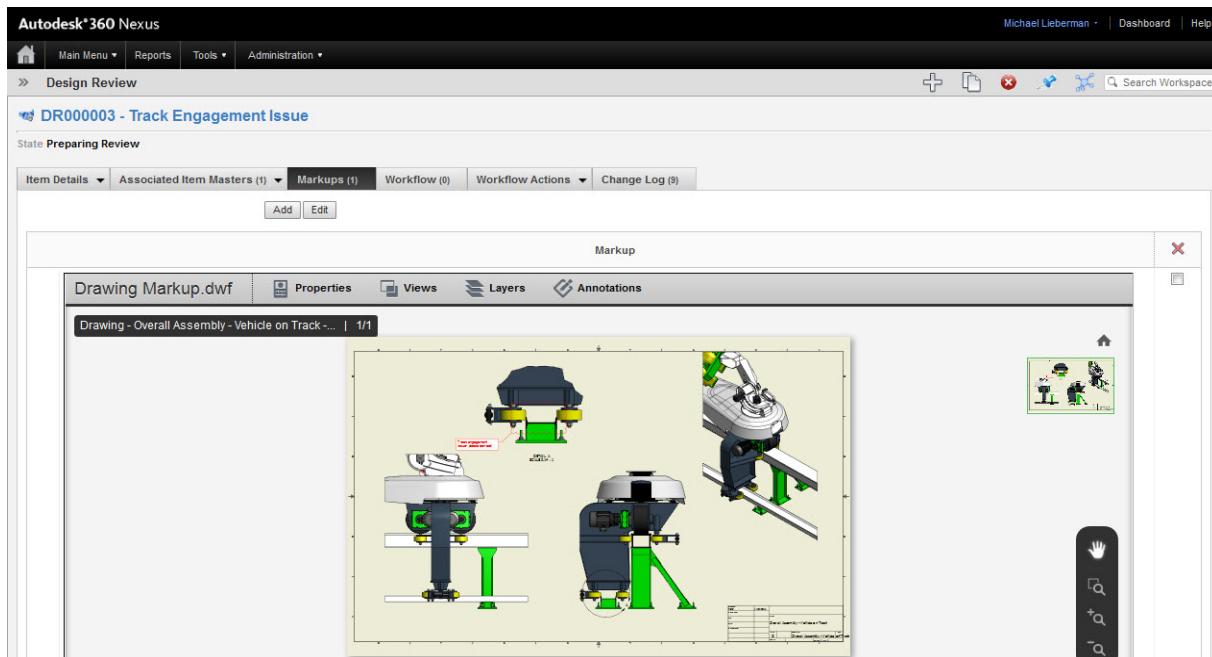
The architecture, engineering, and construction (AEC) industry, the designers and builders of the world's infrastructure, arguably stand to gain even more than other industries by implementing product lifecycle management (PLM) strategies. This is because AEC has only made modest progress in the management of the intellectual assets of projects at the enterprise level.

The AEC industry designs and constructs everything from houses of all sizes to small-town apartment complexes, schools, and office buildings to big-city skyscrapers, refineries, power plants, bridges, dams, and factories; in short: any and all structures. Some of their finest work is flat on the ground, so to speak, as airports, freeways, and mass-transit rail systems. Underground, AEC deals with subway systems, water mains, gas pipeline networks, electrical conduits and associated infrastructure, sewer lines, and storm-drainage tunnels and supporting facilities.

This is the realm of architects, civil engineers and structural engineers, and a host of skilled tradesmen. PLM strategies have many obvious benefits to building owners but implementation has lagged other industries. A big reason is that every AEC project has two complex hand-overs of information. The first is turning the architects' design into construction plans for the general contractor and subcontractors. The other hand-over is the completed building from the general contractor to the owner.

PLM began as extensions and toolkits to computer-aided design (CAD) systems and solid modelers to manage the initial explosion of engineering information in digital formats. The initial focus was the same as CAD and computer-aided manufacturing (CAM), which was discrete mechanical products made with machine tools.

CIMdata PLM Industry Summary



Design-review tools in Autodesk 360 Nexus for BIM. Image courtesy of Autodesk Inc.

The aerospace and automotive industries led the way and the “lifecycle” focus soon followed, corralling all the information—the intellectual assets—of a product from concept to disposal. From that solid foundation, PLM steadily expanded into electronics; medical, surgical and pharmaceutical; food and beverage; consumer packaged goods. From that foundation, PLM is evolving into other process industries, where the production system often *is* the product.

The next logical extension of PLM is into AEC, where the project itself assumes the place of products and production processes. And because AEC projects are so fundamentally different from discrete-products manufacturing and the process industries, a PLM transformation is beginning.

In many ways, PLM for AEC had a coming-out party in November 2011 at Autodesk Inc.’s annual Autodesk University (AU) conference in Las Vegas. Specifically:

- The launch of Autodesk 360 for BIM [for **Building Information Modeling**] as a comprehensive set of cloud-based and on-premise tools that can get project teams up and running with collaboration and data management in a matter of days. 360 is a significant step toward enabling a BIM workflow from design through to construction. The Autodesk BIM portfolio includes software and design suites for civil engineers, architects, structural engineers and mechanical – electrical – plumbing contractors.
- Autodesk’s acquisition of Horizontal Systems (New York City) whose “Glue” applications enable architects, engineers, builders, and owners to collaborate in the Cloud in **over 40 different three-dimensional (3D) imaging** formats, globally and in real time. (Shortly thereafter, Autodesk announced a joint venture with Bouygues Construction to push Autodesk BIM solutions in construction. Based in Paris, Bouygues is one of Europe’s largest AEC firms.)

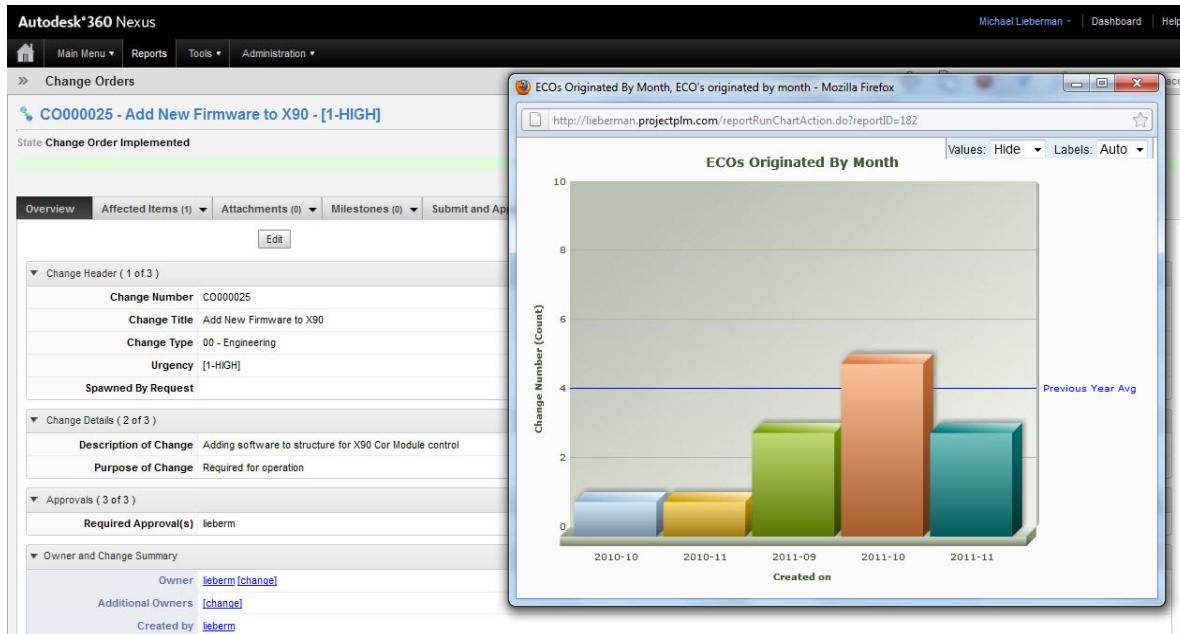
Autodesk, San Rafael, Calif., is the industry leader in most AEC software segments. The impact of the two AU announcements is building support for data management and PLM strategies across many segments of the AEC software industry. This is shown by releases from Bentley Systems, Hexagon’s Intergraph, and Nemetschek AG’s Graphisoft, ArchiCAD and Vectorworks units. Also moving toward AEC are the manufacturing-oriented PLM solution suppliers such as Dassault Systèmes (ENOVIA),

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Siemens PLM Software (Teamcenter), Aras Corp. (Innovator), PTC (Windchill), and others.

Taken together, these steps mark the beginning of the evolution of BIM into “B”LM: managing information is morphing into managing the building lifecycle. **BIM’s 3D imaging offers** huge potential benefits to building owners. Two examples:

- **Facilities management / operations & maintenance (FM / O&M) ties together information about maintenance, space, structure, assets, energy, and even service manuals into a virtual model of the building. This is the ideal (and highly synergistic) way to assemble the building owner’s comprehensive picture of operational needs and costs over time.**



Change order management with Autodesk 360 Nexus for BIM. Image courtesy of Autodesk Inc.

- **Energy analysis and sustainability, which combines in 3D formats all the information about the structure with the sources and amounts of energy needed to heat, cool, and ventilate it. A central part of Green design, this data grows in value to owners over the decades of the building’s “life.”**

PLM for AEC extends these benefits. The obvious question is why not sooner? The answer is that, compared to manufacturing and the process industries, AEC is much larger, much more complex, and more fragmented. This is why the professions and businesses that comprise AEC are taking a fresh approach to PLM.

Specifically, AEC leaders are blending traditional project-management information, a.k.a. BIM, with scheduling, simulation and analysis, and digital manufacturing. Benefits include better management of equipment and materials at the site, optimizing the pace of work, capturing best practices, maintaining document workflows, and pinpointing critical differences between the as-designed and the as-constructed.

Capturing best practices for reuse is a major PLM benefit to contractors as lessons learned. Capturing the as-designed and the as-constructed plus the as-maintained is equally vital for building owners. Unlike PLM in most other industries, PLM in AEC positively impacts the product’s owners and managers for 30 or more years. This can be seen by looking at just three key PLM benefits:

Better coordination between architects and contractors, especially the small- and medium-sized. This is the “build” phase of the project, when tens of thousands of CAD files, paper drawings, and even some

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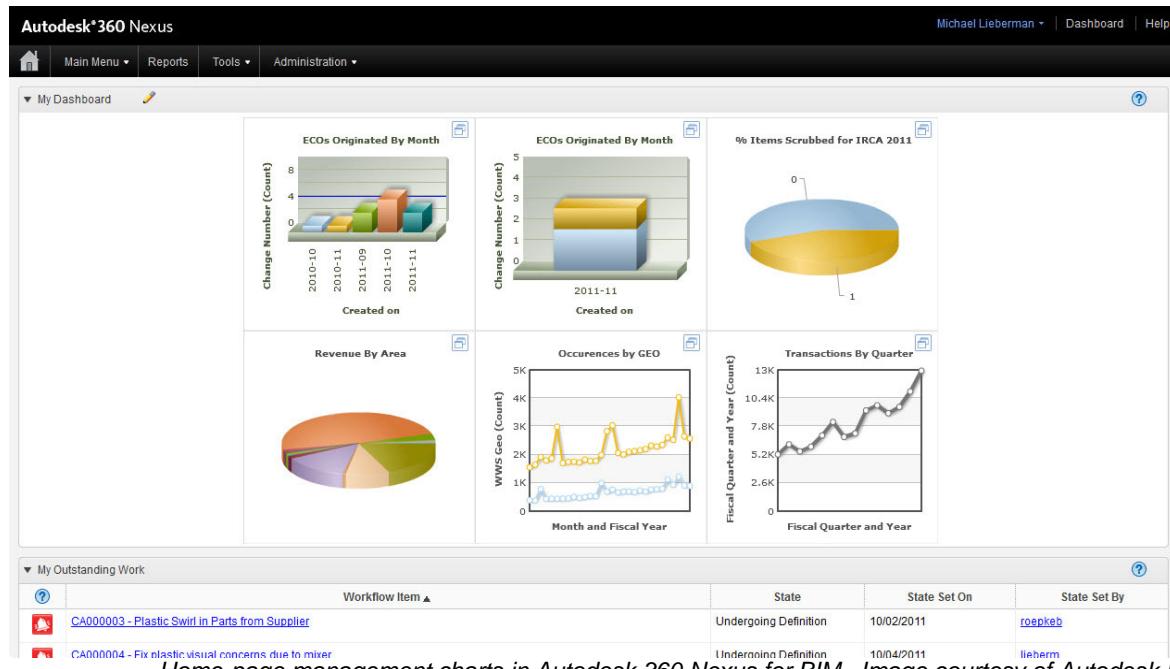
blueprints are brought together at the project site. This part of the lifecycle is design-centric and is usually labeled BIM. Focused on structural and civil engineering, BIM accounts for the structure itself and all its connections to utilities (water, sewer, electric, gas, and steam). BIM also accounts for ingress, egress, foot and vehicular traffic, zoning, building-code compliance, and security, among other things.

Design technology in BIM, even the newest and most disruptive, is easily handled with PLM strategies because most of the content is what information technology (IT) professionals call “structured”—CAD files and spreadsheets where information is explicit and easily found.

Ensuring that building owners and managements know in detail what constitutes the physical property. This combines the BIM as-designed with the as-constructed information that can be almost anywhere in a myriad of forms. Included is what has been done in maintenance; repairs to damage; and leaseholder build-outs plus renovations and modifications.

This as-constructed data is operations focused; knowing “when” and “by whom” is essential. Unfortunately, BIM systems managers struggle to keep these information models updated. Some as-constructed data and a lot of the as-modified information may be missing.

This information is what IT pros call “unstructured”—blueprints, photos, faxes, E-mails, documents from inspectors and regulators, claims settlements from insurers, and so on. What is important to a given owner may not be readily apparent; the information has to be dug out or inferred. PLM strategies handle implicit information well. Despite the technical challenges, as the as-constructed and as-maintained information is pulled together, *BIM* evolves into *BLM* for Building Lifecycle Management.



Home-page management charts in Autodesk 360 Nexus for BIM. Image courtesy of Autodesk Inc.

Record-keeping, the gathering and securing of information such as filings for regulators in emissions, energy use, LEED certification for greenness, safety, property taxes and appeals, rezonings, and lots more.

For building owners and managers, the questions to be answered by PLM are “What do I have?” and “What do I have to manage or change?” PLM offers strategies for dealing with the variety of complications that arise from a basic AEC reality: No two buildings are exactly alike. Size, materials,

CIMdata PLM Industry Summary

floor plans, site-specific modifications, utilities, and construction techniques vary widely. So do the needs and tastes of the building's tenants.

Making all the pieces fit together on the construction site is AEC's biggest challenge, as well as the greatest challenge to implementing PLM in AEC. This is where the differences between the as-designed and the as-constructed emerge. Part of the contractor-to-owner hand-over of a large structure is tracking every discrepancy in the design data and BIM information. These discrepancies are tracked with "punch lists."

Punch lists are informal but legally binding agreements between architect, contractor, and owner to correct anything the owner finds not "up to spec." Much of this entails workarounds and modifications made on-the-fly. Punch lists run to hundreds of pages and are not always well documented. They have always been a stumbling block to the building owners' needs for any comprehensive information approach.

A further complication for PLM implementations is that AEC relies heavily on skilled tradesmen and craftspeople. They are bound by union contracts and regulated by a plethora of building codes and regulations. Because neither accommodates technological change easily, much of their information that is important to building owners is in scanned paper documents, at best.

Regulations multiply in the public sector such as schools, hospitals, government buildings, and infrastructure. Regulations multiply yet again in oil and gas facilities, refineries, and nuclear power plants. Despite the complexity, PLM strategies for AEC can go a long way toward placing up-to-date information at the fingertips of everyone who needs it.

Until the advent of PLM, what has been missing in AEC is a broader and deeper level of collaboration between architects, engineers, and contractors on one hand and project owners on the other. As an example, collaboration on specs and capabilities is vital if electrical systems, heating, air-conditioning, elevators, and escalators are to be economically maintained over time.

PLM for AEC, a.k.a. BLM, brings this enormous mass of info together for the benefit of building owners and managers. Their concerns span the building's entire lifecycle; they start with the structure's design concepts, which may be developed by architects years before a general contractor is hired and put to work. This is why BLM requires the integration of discrete product information, such as HVAC product data, with the project information, that is, what was constructed.

The theory of BIM—centrally managing all of a building's intellectual property, i.e., all the information needed to design and maintain the building—is that every product or service has a lifecycle. This means PLM for AEC manages data objects about everything in a project's information workflow. This is how PLM ensures that all of a building's information is captured as it is created, transformed as required by successive owners, and delivered wherever needed no matter when.

Successfully integrating BIM and the myriad AEC applications into an all-encompassing PLM strategy pays off in many ways. Well-implemented PLM helps with everything from gaining project approvals, securing funding, tracking regulatory filings (and their convoluted workflows for signoffs), tracking design changes and their "downstream" impacts, and coordinating the work of hundreds of subcontractors that use dozens of different CAx systems.

To summarize, well-implemented PLM for AEC can help do all this, keeping owners abreast of every building change and all their technical and financial impacts over several decades. The deeper meaning of the Autodesk University of PLM and Cloud announcements is that power and adaptability of a PLM

strategy is unquestioned.

This article was published here:

[PLM for AEC: A Better Way to Manage Buildings](#)

(AECCafe, January 24, 2012)

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2012: The PLM Tipping Point? (New Poll)

27 January 2012

Which statement best describes your PLM program plans for 2012?

- The pace of our existing PLM program is the same as it was in 2011.
- The pace is slowing down.
- The pace is speeding up.
- The program has stopped.
- No current program exists.

[VOTE](#)

The results of these polls are tabulated as you vote. The results are completely anonymous. If you are currently logged in your vote will not be connected to your personal information in any way.

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Company News

Applied Software Earns Autodesk Factory Specialization

24 January 2012

[Applied Software](#) announced that it has earned the new Factory Specialization designation for value-added resellers from [Autodesk, Inc.](#) As an Autodesk Specialized Partner, Applied Software has shown that it has made significant investment in its people, has a solid business plan specific to its specialization area, has customer references and can provide a high level of expertise, experience and support to customers in the manufacturing and AEC industries.

The new Autodesk Partner Specializations enable value-added resellers to highlight and brand their expertise in delivering services in key industry areas. By completing the required curriculum and training, as well as meeting required levels of service and standards set by Autodesk, Applied Software demonstrates through its strong customer service and support what it means to be a trusted adviser to Autodesk customers throughout the world.

"Applied Software has been an Autodesk Value-Added Reseller representing Autodesk products and solutions for over 26 years," said Carl White, director, Digital Design Group, Autodesk. "As one of the first partners to earn the Autodesk Factory Specialization, Applied Software further exemplifies its commitment to the industry with its exceptional team of personnel and desire to support Autodesk customers."

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"We're pleased to be recognized by Autodesk through the granting of its Factory Specialization designation," said Richard Burroughs, president, Applied Software. "With our Autodesk Gold Partner certification and an elite staff of Architectural, Mechanical and Engineering experts, we are well-positioned to implement exceptional design and project management tools on-site and to train, service and support plant designers and engineers in the Southeast."

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Entries Open for the Tenth Annual KOMPAS-3D Modeling Contest

26 January 2012

ASCON Group announced the annual KOMPAS-3D Modeling Contest now in its tenth year. All current and future customers are welcome to submit images of their design projects made with KOMPAS-3D.

The modeling contest is held annually to showcase the abilities of individuals and enterprises using KOMPAS-3D for modeling a wide variety of 3D and 2D designs. The winning results from previous years are exhibited at ASCON's online Design Gallery at ascon.net/showcase/gallery. This year, a new category is added, for featuring models made with the 3D surfacing features of KOMPAS-3D.

Over the last nine years, some 500 designers and 215 design firms entered the best efforts of their work. The 3D models submitted included their latest products, newest buildings, and extensive industrial facilities. Many of the projects seen online as 3D models are now successfully implemented as machines, engines, and other products in industries worldwide.

"The first KOMPAS-3D modeling contest in 2002 immediately aroused interest among our customers. At that time, they designed the projects in KOMPAS-3D V5, just in the second 3D version of our software," recalls Maxim Bogdanov, contest founder and CEO of ASCON Group. "Now, ten years later, the contest's conditions, evaluation criteria, and users' professional level have changed considerably.

"KOMPAS also changed a lot in these ten years. Its functionality was improved and extended greatly, and, of course, our customers have become much more experienced," he added. "But interest in the contest has not waned, because designers are creators, and creators should always be recognized – along with the need to exchange experience and knowledge with peers."

About the Contest

This year, ASCON accepts projects in following categories:

3D assembly models of products developed in KOMPAS-3D

3D models of construction projects developed in KOMPAS-3D

"The most complicated shape" of 3D models developed in KOMPAS-3D using surfacing

To participate, simply fill out the official application form at <http://www.ascon.net>, and then send it with the KOMPAS-3D project files or screen shots to contact@ascon.net. All companies and individuals using KOMPAS-3D V9 through V13 are allowed to take part. Deadline is **June 1, 2012**. Winners of the Tenth Annual KOMPAS-3D Modeling Contest will be awarded valuable prizes from ASCON and sponsors of the event.

For more information about Contest 2012, please contact ASCON at contact@ascon.net

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CIMdata PLM Industry Summary

Integware Announces Systems Integrator Agreement with Siemens PLM Software

24 January 2012

[Integware](#) announced that it has signed a Services and Systems Integrator Partnership Agreement with [Siemens PLM Software](#). Integware has focused for nearly twenty years on extending PLM across all product-related processes in the medical device industry. Its platform-neutral development approach enables it to combine Life Sciences expertise with Siemens PLM Software's Teamcenter® software. The companies will work together to configure fast, scalable, integrated PLM solutions that meet the unique needs of individual customers.

"Our company looks forward to working with the Siemens PLM Software team to provide the Life Sciences industry with solutions that help maximize the speed and quality of product development and minimize the risk and effort associated with regulatory compliance," said Chris Kay, Integware's Chief Executive Officer. "Customers benefit when we can offer our solutions on whatever platform best suits their needs, and they will appreciate the option of using the powerful and versatile Teamcenter technology."

Integware recently presented a case study of a solution for Life Sciences PLM using Teamcenter at the Siemens PLM Connection Americas Users Conference 2011. The study described an innovative and successful extension of the Teamcenter requirements management capabilities to address 21 CFR part 820 compliance for product R&D at a Fortune 50 medical device company. Integware's implementation of Teamcenter had excellent results, enabling up-to 70 percent reuse of existing design information.

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Lectra Appoints Jean-Patrice Gros Director, Middle East and North Africa

26 January 2012

[Lectra](#) announced the appointment of Jean-Patrice Gros as Director of the Middle East and North Africa region.

"Appointing Jean-Patrice Gros at the head of this region, with Turkey at the forefront, demonstrates our commitment in supporting this high-potential area. Turkey has been a major partner of many European fashion brands for several decades and has recently benefited from investments in the automotive sector, it is a flagship country for Lectra," indicates Daniel Harari, Lectra CEO. "Renowned for the quality of its production, Turkey is the European Union's second supplier of textile-clothing, behind China. Based on a dynamic internal market, the country continues to evolve into developing its own international fashion brands and automobile production centers. Lectra intends to introduce soon its PLM offer for fashion and its new automotive leather cutting solutions. These solutions, with high added value, will provide a real lever to develop and transform Mediterranean companies."

"The expertise of Lectra's teams in implementing innovative technologies, facilitating design and production, should enable Turkish industrialists, as well as industrialists from the whole region, to respond more easily to the rhythm of Fast Fashion and the flexibility required by the automotive industry," states Jean-Patrice Gros.

In 30 years at Lectra, Jean-Patrice Gros has gained significant international experience, which gives him extensive knowledge of all of the company's offers and markets. He will be able to accompany Lectra's customers in their strategy of creating value, promoting synergies in the region and strengthening their links with European manufacturers. Jean-Patrice has been successively responsible for the International

CIMdata PLM Industry Summary

Advanced Technology Center of Bordeaux (France), before being appointed head of sales in Canada and Director of the Maghreb region.

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Majenta PLM is Named Top UK Siemens PLM Software Solution Provider and Retains its Status as the UK's Only Platinum Partner

25 January 2012

Majenta PLM has won two major awards in the annual Siemens Industry Software European Partner Leadership Summit, Istanbul. As well as retaining its positions as both the UK Business Partner of the Year and only Siemens PLM Software Platinum Partner in the UK, Glynne Williams, Majenta PLM Account Manager, was also awarded as the top UK sales person.

Both awards went to Majenta PLM for generating the highest revenue for Siemens Industry Software from software licences during fiscal year 2011. This in turn led the company to retain its status as the UK's first and only Siemens PLM Software Platinum Partner – a position achieved by a business partner that generates over \$1 million in net software revenue for Siemens Industry Software in any given year.

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3D PDF Consortium Begins Formal Operations

24 January 2012

Today the 3D PDF Consortium announced its formal incorporation as of Tuesday, January 3, 2012. The 3D PDF Consortium is a group of end users, software vendors, systems integrators, developers and software toolkit providers whose mission is to encourage the continued development and adoption of 3D PDF as a truly open standard for visualization, collaboration, data exchange and the long-term archiving of 3D data across multiple industries and disciplines.

“Until now, the 3D PDF Consortium has been in ‘start-up’ mode,” says David Opsahl, 3D PDF Consortium Executive Director. “Since October we have been establishing this new member organization in the professional manner that our members would expect. We are now ready to begin the process of building a high-value organization deserving of the support of both the end-user and solution provider communities.”

The 3D PDF Consortium is truly an international group, according to Bernd Paetzold, CEO of PROSTEP AG. “PROSTEP AG has always been committed to open standards. With the 3D PDF Consortium, the idea of bringing engineering data to each consumer all over the world based on an open format will be strongly supported. For that reason, we will be part of the initiative as a founding member.”

PDF will continue to evolve and be managed through the International Standards Organization (ISO) process – specifically ISO32000. 3D PDF Consortium adds value to this robust process as an industry-driven organization.

“Forming the 3D PDF Consortium is a crucial step in keeping this high-value standard strong and responsive to industry needs,” states Phil Spreier, manager of Translation Products for Tech Soft 3D. “The 3D PDF Consortium is the ideal forum to both accelerate the adoption of 3D PDF and ensure its continued focus on real-world workflows driven by the entire community, rather than a single entity.”

CIMdata PLM Industry Summary

One of the major benefits of the 3D PDF platform is the ubiquity of Acrobat Reader, existing on 98% of connected devices worldwide. Not surprisingly, 3D PDF Consortium also enjoys the support of Adobe. "Adobe is pleased to be a founding member of the 3D PDF Consortium", said Kirk Gould, director of Acrobat Engineering, Adobe. "We see the 3D PDF Consortium as a key industry group, helping to drive the adoption of the 3D capabilities of PDF to represent rich content that is connected to a variety of data sources and across diverse media and devices. The consortium is a natural extension to Adobe's commitment to driving innovation and the future of digital media."

Although the Consortium is newly formed, many organizations have been developing or deploying 3D PDF-based solutions for some time. The Consortium is a focal point in the market for both the producers and users of these applications. One such company is Boulder-based Anark Corporation, who specializes in technical documentation solutions. "We believe the time has arrived for the manufacturing community as a whole to benefit from a highly functional, cost effective, and truly open format that enables the creation and delivery of secure 3D Technical Data Packages and other mission critical manufacturing documents", said Stephen Collins, President and CEO of Anark Corporation, "3D PDF provides just that, and we are excited about the formation of the 3D PDF Consortium as a group dedicated to the support and evolution of this powerful and open format."

Membership in the 3D PDF Consortium is open to all organizations regardless of size and industry focus. Companies represent a broad spectrum of markets, including discrete and process manufacturing, architecture and building information management, geospatial and medical. The 3D PDF Consortium will hold its first annual meeting in May in conjunction with the 3D Collaboration and Interoperability Conference (3DCIC) May 21st – May 23rd in Denver, Colorado.

About 3D PDF Consortium

The 3D PDF Consortium is a community of companies interested in collaboration of dynamic 3D data through PDF files. Software providers, systems integrators, government agencies, and businesses that provide and consume 3D data solutions look to the 3D PDF Consortium to demonstrate the success of these solutions within the market and promote 3D PDF as a solution to improve business results. The 3D PDF Consortium promotes 3D PDF adoption through demonstrating best practices and generating awareness of the power of 3D-enabled PDF to solve a multitude of communication and collaboration challenges across various industries.

For more information on the 3D PDF Consortium, please visit <http://www.3DPDFConsortium.org>.

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Zuken Expands its International Business Team

24 January 2012

Zuken EAS has recently expanded its corporate business team to manage their growing business in Europe and North America.

As part of this expansion, Steve Chidester has been appointed Head of International Marketing; a strategic role that will draw on Chidester's 30-year experience in the electronic design industry to strengthen Zuken's position as a leading vendor in the PCB systems and electrical design markets. In this role, Chidester will oversee all marketing activities for Zuken in Europe and North America.

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Zuken's product marketing team has recently welcomed Patrick Hackney as Senior Technical Marketing Manager for [electrical design solutions](#) in Europe and North America, working alongside Humair Mandavia, Senior Technical Marketing Manager for [PCB systems design solutions](#).

Additionally, Aurang Rona has been appointed to a new international corporate development management role which will focus on shaping and optimizing Zuken's working processes and organizational structure.

[Since joining Zuken in June 2009](#), Chidester has overseen the launch of several Zuken products, including Zuken's most innovative product to date – the multi-board PCB design suite [CR-8000](#). "It has been exciting to lead the introduction of CR-8000, the world's first new PCB system-level design suite in more than 10 years," says Chidester. "I'm looking forward to further innovations from Zuken in the years to come."

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Events News

[Apache Sponsors Chip-Package-System Workshops at DesignCon](#)

26 January 2012

[Apache Design, Inc.](#), a subsidiary of ANSYS, announced it will be sponsoring two complimentary [Chip-Package-System \(CPS\) Workshops](#) during DesignCon, at the Santa Clara Convention Center on February 1, in Santa Clara, California. These interactive sessions will bring together leading semiconductor companies and system houses to share their expert perspectives and best practices on chip and package modeling, and system-level verification for signal integrity, power integrity, electromagnetic interference and thermal. There is no cost to attend the workshops, but [registration](#) is required and seating is limited.

About Chip-Package-System Workshops

These in-depth technical sessions will provide designers with an open forum for exchanging the latest ideas and information on the most current technologies.

[CPS Methodology for Cost-Down and/or Reliability – Session SS-200](#)

This session features speakers from Intel and Cisco who will discuss how the performance and cost demands of today's chip designs require a comprehensive chip-package-system approach to analysis. These industry experts will share their insights and expertise with case studies and real design examples for CPS convergence, and will discuss various aspects of analysis methodologies and technologies in terms of modeling, extraction and simulation. This session will take place on February 1, from 10:15 a.m. to 12:15 p.m. in Ballroom H.

[CPS for 3D-IC and Power-Thermal-Mechanical-Electrical Applications – Session SS-201](#)

This session includes speakers from Micron, LSI and Xilinx who will focus on the challenges created by 3D stacked die and 2.5D Silicon Interposer with TSV chip designs. These leading technologists will examine modeling and simulation challenges in 3D-IC design and explore methodologies for power delivery network analysis, chip-to-chip communication, and thermal integrity using real case studies. This session takes place on February 1, from 2:00 p.m. to 4:00 p.m. in Ballroom H.

About Apache at DesignCon

Apache Design will be showcasing our advanced low-power solutions for chip-level power analysis, optimization, and sign-off, as well as comprehensive methodologies for chip-package-system convergence. As the newest member of the ANSYS family, **Apache (booth #214)** and **ANSYS (booth #501)** will be demonstrating how our multi-physics engineering software portfolios enable innovative simulation-driven IC and electronic system development for power-efficient, high-performance and noise-immune electronic products. Visit us to find out how we are helping world's top semiconductor companies reduce costs, mitigate risks, and accelerate product delivery.

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AVEVA Sponsors Topsides 2012

25 January 2012

AVEVA announced it will sponsor the Opening Night Networking Reception at the upcoming Topsides 2012 Conference and Exhibition. AVEVA will also exhibit at the show, which focuses on the engineering, design, construction and installation of offshore production systems. The conference runs January 31 to February 2, 2012, at the New Orleans Riverside Hotel in New Orleans, Louisiana.

“The Topsides 2012 Conference is a natural strategic fit for AVEVA,” explained William Muldoon, AVEVA’s Executive Vice President. “The offshore sector represents an important segment of our business and it’s been growing steadily as the quest for harder to reach deepwater resources intensifies.

“With this increasing demand comes an ever greater need for hulls, platforms, topsides and decks. And with industry leading software solutions such as AVEVA Marine, AVEVA Plant and AVEVA Enterprise, we’re the company Owner Operators and Engineering Procurement and Construction (EPC) firms look to first when they launch offshore projects,” he said.

Muldoon pointed out AVEVA is no newcomer to the offshore industry, with hundreds of customers around the world and a proven track record with assets in the Gulf of Mexico, the North Sea and Brazil, among others.

“Customers have counted on AVEVA software solutions for decades,” Muldoon said. “They come to us for engineering, design and information management solutions for some of the largest, most complex offshore projects in existence: floating production offloading and storage vessels (FPSOs), as well as production platform topsides and other critical components. They know that AVEVA helps them deliver more accurate engineering and fewer reworks, which can save them valuable time and money, and lead to faster first production for Owner Operators.”

Topsides 2012 kicks off January 31 with the AVEVA-sponsored networking reception from 5:00 p.m. to 6:30 p.m. The conference and exhibition begins the next morning in the exhibit halls. AVEVA will be in **booth 206**.

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AVEVA to Exhibit at 67th Annual Texas A&M University Instrumentation Symposium

23 January 2012

AVEVA will be exhibiting at the upcoming 67th Annual Instrumentation Symposium for the Process

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Industries at Texas A&M University January 24-26, 2012 in College Station, TX.

“There’s not a single part of any process plant that is not covered by instrumentation,” said William Muldoon, AVEVA’s Executive Vice President, North America. “AVEVA has an exciting story to tell about how we can solve many of the problems plants are facing with their instrumentation, things such as lack of change management, wiring limitations, poor visualization, etc. This routinely leads to wasted time and productivity, something no plant can afford”.

AVEVA will be exhibiting its instrumentation solution at the conference, held at the university’s Rudder Tower and Theatre. These solutions are part of AVEVA’s larger portfolio of Integrated Engineering & Design products which provide a comprehensive range of 3D design and engineering applications which dramatically improve project control and efficiency.

“Our instrumentation solution cuts project and operating costs for the process plant and raise productivity,” Muldoon explained. “We achieve this through a simple, yet powerful interface that parallels the natural workflow of engineers and designers.

“For example, within a single graphical environment, AVEVA Instrumentation, users can create and edit loop diagrams, schedules and terminations. This integration enables rigorous, automated change management, eliminating remedial rework”, Muldoon said.

Muldoon added, “AVEVA Instrumentation is rapidly capturing market share in this space and at this Symposium, attendees will see firsthand why more and more customers are opting for AVEVA Instrumentation”. The Instrumentation Symposium for the Process Industries features technical presentations and booths designed to educate professionals and students involved in instrumentation operations, engineering and maintenance in industrial process plants across the Southwest. To learn more about the Texas A&M University Instrumentation Symposium, visit <http://instrumentation-symposium.tamu.edu/>

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AVEVA to Present at EUEC 2012

26 January 2012

AVEVA will be a featured presenter at the upcoming EUEC (Energy, Utility and Environment Conference) 2012. The event takes place January 30 – February 1, 2012 at the Phoenix Convention Center in Phoenix, AZ.

AVEVA’s Sloane Whiteley, Senior Business Consultant, will present “Roadmap for implementation of the Next Generation Energy Management Information Solution.” The presentation will illustrate how, by implementing an Energy Management Information System (EMIS), process intensive facilities can translate plant data into timely, actionable information. Plant decision-makers will realize cost savings and more accurately adhere to ISO energy management standards, such as the ISO 14000 series and the upcoming ISO 50001 for energy management systems. AVEVA’s presentation will explain the functional, physical and process components of the next generation EMIS, the anticipated benefits at the enterprise, facility and individual stakeholder level, as well as provide a phased implementation roadmap for such a system.

“Energy costs form a large portion of the operating costs of any plant,” said Whiteley. “That’s even more true at process intensive facilities such as refineries, power plants and pulp & paper mills. Quoted industry data indicates that energy costs can be upwards of 25% of the operational costs of the plant.

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AVEVA will share its experience in how to get these costs under control and to make sure each energy dollar is spent in the most efficient way possible via the use of a new generation of Energy Management Information Solutions built around a Digital Information Hub”.

Whiteley explained, “This Digital Information Hub brings together in one central and easy-to-use system all the relevant energy consumption information from every area of the plant. This means plant decision-makers can have the right information they need at the right time to make informed business decisions regarding the use of energy at their facility. This leads to more efficient energy use and cost savings across the entire plant. With oil and natural gas prices as volatile as they have been in recent years, the EMIS gives plant managers and executives a valuable tool to reign in energy costs by eliminating inefficiencies”.

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BIM Spectrum Virtual Event Line-up Announced

25 January 2012

Rand Worldwide announced its IMAGINiT Technologies (imaginit.com) division will host, BIM Spectrum (bimspectrum.com) - a complimentary virtual event. IMAGINiT’s third BIM interactive online conference examines how 3D models are used in multiple disciplines to create and manage building data from the first survey through to maintenance and retrofitting. The event will be held Thursday, February 16, 2012 from 10:30 a.m. to 5:00 p.m. Eastern Time.

Attendees will hear from both industry leaders and IMAGINiT experts who have pioneered a wide variety of innovations in the BIM world. Together they will demonstrate the positive impact that BIM makes on all facets of business. Sessions will explore how the latest in best practices, techniques and strategies are being implemented by leading organizations. A special keynote presentation will be led by Autodesk Vice President, Phil Bernstein, FAIA, followed by a moderated chat session.

Valuable Sessions for Managers and Software Users

BIM Spectrum’s content is divided into two concurrent tracks. The Managers Track will be tailored to project managers, owners and stakeholders with a focus on business goals and strategies on how to get the most value out of BIM. The Software Users Track is designed for software users including architects, engineers and designers looking to improve their technical knowledge, model management skills and overall efficiency.

“We carefully selected each presenter based on their proven success in the BIM field and for their ability to inspire creative thinking,” said Ken Flannigan, senior applications expert, IMAGINiT Technologies. “The line-up also features several special sessions from IMAGINiT experts sharing new perspectives in areas as diverse as product manufacturing, industrial plant design, facilities management, and civil engineering.”

Expert Presenters

The list of speakers and their organizations is below. For full details on their session topics please visit bimspectrum.com.

- Tracy Bird – Hummel Architects
- Scott Buchanan – IMAGINiT Technologies

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- Christopher Cerino – STV
- Doug Cummings – IMAGINiT Technologies
- Ken Flannigan – IMAGINiT Technologies
- Robert A. Glover – Wiley Wilson
- Scott Hale - IMAGINiT Technologies
- Fulton Hartzog – Rand Facilities Management
- Charles Leman – HCMA
- Robert Manna – Stantec
- John E. Nadon – STV
- David Patera – VIA
- Brian Russell – Ayers/Saint/Gross
- Beau Turner – Rand Worldwide
- Andrew Watkins – Ayers/Saint/Gross

Registration

The format of the BIM Spectrum virtual event allows participants to login from anywhere. In addition to attending the conference sessions, participants are able to network in the virtual lounge as well as ask questions in the virtual exhibit hall featuring exhibitors such as SMARTBIM, Leica Geosystems, VIMTrek, eSPECS and KnowledgeWell. For more information, or to register to attend BIM Spectrum, please visit: bimspectrum.com.

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Cabinet NG Targets Legal Industry With PaperlessAttorney.com

23 January 2012

[Cabinet NG \(CNG\)](#), provider of [electronic document management](#) and [workflow management software](#), announced it will debut its new legal targeted website, [PaperlessAttorney.com](#), at LegalTech New York, January 30 through February 1 at **booth #2505**.

Transactional law firms (personal injury, disability, traffic law, etc.) face a document management problem uncharacteristic of other types of law firms as the more cases taken to closure directly affect their bottom line. Being efficient at closing cases requires a strict and repeatable document management process that will allow the firm to intake initial documents, workflow them electronically and get updates on their status from a workstation or mobile tablet used in the firm.

The core benefits of CNG's document management solutions to legal firms include:

Instant Access: Access documents any time from an Internet connected device such as desktops, laptops, or tablets at the touch of a button. Multiple assistants can work the same case simultaneously and have access to all relevant documentation. If one assistant works the investigation, while another does medical records and a third works with the insurance companies, the system allows all three access to all of the documents at any time.

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Share & Collaborate: Use workflow to route documents through a standard process. Letters and other case matter can quickly be reviewed, edited and approved without ever leaving the system. Streamlining collaboration and workflow processes allows more to be accomplished in less time, which translates to higher caseloads at a given headcount without compromising quality.

Integration: Historically reserved for large practices with deep IT pockets, CNG's solutions allow small and medium-sized firms to achieve levels of application integration with other core firm applications to drive efficiency and manage IT costs.

Search: Going paperless dramatically decreases the amount of time spent locating and retrieving documents, both current and archived through various types of searching including structural search, keyword and document title search, and full text search.

To match the needs of any law firm or legal organization, CNG's document management solutions can be purchased and installed on premises, or hosted in the cloud for a monthly fee. The software is highly configurable, allowing for the creation of a structured system to meet the needs of each law firm or legal organization. The solution delivers key functionality out-of-the-box and has built-in rights management and security to help users gain control of their valuable documents and information.

For more information about CNG's document management solutions for the legal industry, visit CNG in booth #2505 at LegalTech New York, where CNG executives will showcase the company's document management solutions, contact CNG at 800-621-6501 or visit <http://paperlessattorney.com/>.

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CDS & CADworks Exhibit new BIM Solution at AHR 2012

23 January 2012

CDS (Catalog Data Solutions) announced the public presentation of the joint [CDS](#) and [CADworks](#) Online Catalog BIM Solution at the AHR Expo in Chicago, January 23-25, **Booth #2951**.

"The Manufacturing industry has led the AEC industry in adoption of online 3D CAD, but due to the rapid adoption of BIM (Building Information Modeling), AEC is quickly catching up. AEC can now take advantage of the same online marketing technology and techniques already proven in the Manufacturing space," said John Major, CEO, CDS. "For example, as buyers and engineers use the Internet to research products, locate suppliers, and to make purchasing decisions (often without ever talking to a sales person), manufacturers are building websites with searchable online catalogs, configurators, custom web applications and online content to ensure their products are considered and to influence research during the new buying process. On the booth this week we'll be demonstrating the solution and several already live early adopter customers - including Bell and Gossett and StainlessDrains.com. These solutions enable user research, product selection, and downloadable BIM models, which get products 'designed-in' for later purchase".

"CDS's SaaS based tools enable suppliers to rapidly and inexpensively achieve a modern online marketing presence. CADworks skills are in AEC and BIM, especially in Revit based content and in intuitive content search. The partnership of CDS and CADworks enables and accelerates adoption in the AEC Industry," said Christopher Di Iorio, CEO, CADworks. "The success of BIM is already evident. GSA, states, cities, and universities around the nation have already mandated BIM for all designs going forward. All major general contractors mandate BIM in coordination processes and it is in wide use today. Bottom line, the AEC industry is using BIM to better design projects through analysis of more

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design scenarios (e.g. energy analysis), better design collaboration and shorter coordination time in the field. To enable this, BIM content lives from the initial design phase right through to and including the facility management phase. So the key to BIM success is the accuracy, intelligence and ease of finding/using content – and that is CADworks' specialty."

To see real customer demonstrations and discuss your needs meet CDS and CADworks at the AHR Expo in Chicago, **booth #2951**, from January 23–25.

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CGTech to Present New Fiber Placement Programming Software Features

26 January 2012

During the JEC Composites show, March 27-29, 2012 at the Paris Expo, Porte de Versailles, CGTech will host, jointly with Electroimpact, a discussion on the abilities and limitations of Automated Fiber Placement. Additionally, visitors to CGTech's stand (**Pavillon 1, Stand R66**) will have the opportunity to receive a thorough overview of the steps needed to get from a CAD designed composite part to CNC programs that drive an Automated Fiber Placement (AFP) machine.

"Manufacturers of AFP machinery typically supply in-house developed off-line NC programming software with their machine, forcing companies to inconveniently adopt multiple software applications for multiple brands of machines," said CGTech Product Marketing Manager Bill Hasenjaeger. "But to survive in this industry, a company must be able select the best machine for the job, without the cost and risk associated with being locked to a single machine supplier."

Throughout the show, CGTech will be demonstrating VERICUT Composite Applications: VERICUT Composite Programming (VCP) & VERICUT Composite Simulation (VCS).

VCP reads CATIA V5, STEP, or ACIS surface models. It also reads FiberSim, CATIA V5 or other external ply geometry and information. VCP then adds material to fill the plies according to user-specified manufacturing standards and requirements. Layup paths are linked together to form specific layup sequences and are output as NC programs for the automated layup machine.

VCS reads CAD models and NC programs, either from VCP or other composite layup path-generation applications, and simulates the sequence of NC programs on a virtual machine. Material is applied to the layup form via NC program instructions in a virtual CNC simulation environment. The simulated material applied to the form can be measured and inspected to ensure the NC program follows manufacturing standards and requirements. A report showing simulation results and statistical information can be automatically created.

CGTech will also be exhibiting its latest version of VERICUT CNC machine simulation and optimization software. VERICUT is CNC machine simulation, verification and optimization software that enables users to eliminate the process of manually proving-out NC programs. VERICUT simulates all types of CNC machining, including drilling and trimming of composite parts, water jet, riveting, robotics, mill/turn and parallel kinematics. VERICUT runs standalone, but can also be integrated with leading CAM systems.

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Delcam Offers Free Training Day for ArtCAM Insignia 3D CAD/CAM

24 January 2012

Delcam will hold a free training day for its ArtCAM Insignia 3D CAD/CAM software at its Birmingham headquarters on Thursday 15th March. The free training is available to existing users of ArtCAM software and to signmakers, furniture manufacturers, engravers and sculptors wishing to learn more about computer-based 3D design and machining. However, because the training will include hands-on practice, attendance will be limited to the first thirty registrants, with a limit of two delegates from any company.

To register for the free training, please go to http://www.delcam.co.uk/insignia_3d.

The latest release of ArtCAM Insignia software includes a range of 3D modelling tools for volume production of artistic items in all types of materials from wood to metal or even ice. The price of the new program is only £1,700, making the move into 3D manufacturing more affordable than ever.

Like all the members of the ArtCAM family of software, Insignia allows artistic users to produce high-quality decorative items, with all the productivity and consistency benefits of computer-based manufacturing but without the need for any detailed engineering knowledge. Full details are available on the ArtCAM Insignia website – <http://www.artcaminsignia.com>.

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Delcam to Launch New Delcam for SolidWorks at SolidWorks World

27 January 2012

Delcam will launch the 2012 R2 version of Delcam for SolidWorks, the integrated CAM system for SolidWorks, at SolidWorks World in San Diego from 12th to 15th February. The new release includes new modules for b-axis turn-mill and four-axis wire EDM, plus numerous improvements to the existing functions for rough milling and finishing. As a Gold Partner CAM product, it is, of course, fully compatible with the latest release of SolidWorks.

B-axis turn-mill allows milling features to be created easily based on the b angle of the feature itself. Both the b-axis angle and the rotational orientation of turning tools can also be controlled. The technique can be used on multi-tasking machine tools, like the Mazak Integrex and the Mori Seiki NT range.

The wire EDM module introduced in the initial 2012 release has been extended to cover four-axis operation. Users can choose from die, punch, profile and rapid operations, along with a variety of other options, to generate code for all types of wire EDM equipment. As with all other Delcam for SolidWorks modules, the wire features are associative to the model so the code will update automatically following any change to the design.

Delcam for SolidWorks 2012 R2 also incorporates enhancements from the 2012 R2 release of Delcam's FeatureCAM feature-based CAM system on which it is based, including a series of new strategies for 2.5D roughing, improved Z-level finishing, Z-axis indexing, and faster simulation.

The new roughing strategies include a continuous spiral option to minimise wear on the cutter and machine tool, high-speed roughing options, including trochoidal machining and Delcam's patented Race Line Machining, and "tear-drop" moves to clear corners more smoothly. In addition, more styles of leads and links can now be used to give greater overall efficiency for the toolpaths.

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Another 2-axis enhancement is the ability to machine parts larger than the travel of the machine tool. If the machine has a table that can index around the Z axis, Delcam for SolidWorks can be used to divide the component into pieces and generate the required series of machining operations.

Other milling improvements include an option to add an extra profile pass exactly at the base of flat pockets, the ability to use face-milling tools with chamfered edges to machine chamfers as well as faces and so minimise the number of tools needed, and a choice of right- or left-handed thread-milling tools resulting in either climb or conventional machining of the thread.

All the strategies within Delcam for SolidWorks will benefit from improvements to the simulation module. In particular, much faster results can be obtained through the use of multiple cores for these calculations.

Delcam for SolidWorks combines the benefits associated with Delcam's PowerMILL and FeatureCAM CAM systems. It is based on Delcam's proven machining algorithms that are already used by more than 35,000 customers around the world. The software offers PowerMILL's exceptional speed of toolpath calculation, plus the advanced strategies for high-speed and five-axis machining, to ensure increased productivity, maximum tool life and immaculate surface finish, even when cutting the hardest, most challenging materials. At the same time, Delcam for SolidWorks has the same strong focus on ease of use as FeatureCAM, including all of the knowledge-based automation that makes that system so consistent and reliable.

Delcam for SolidWorks is fully integrated into the SolidWorks environment so that the program looks and behaves like SolidWorks. It offers full associativity so that any changes in the CAD model are reflected automatically in the toolpaths. However, this associativity is more intelligent than that offered in many other integrated CAM systems. Delcam for SolidWorks doesn't simply modify the existing toolpaths but also reviews the choice of cutting tools and machining strategies, and changes them if necessary.

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Delcam to Make the Most of Multi-Tasking Machines at Mazak

26 January 2012

Delcam is to hold a workshop at Mazak's European Technology Centre in Worcester on Wednesday 7th March showing how companies can use its FeatureCAM feature-based CAM software to maximise the productivity of their multi-tasking machine tools. Further information and a booking form is available at <http://www.delcam.co.uk/featurecam2012>.

The workshop will include programming demonstrations to illustrate the speed and flexibility of the feature-based approach, plus live machining demonstrations on an Integrex multi-tasking machine and a Hyper Quadrex two-turret, two-spindle turning centre, both capable of "Done-In-One" machining and loaded with tooling from Iscar. The event will also see the launch of the latest FeatureCAM release, 2012 R2, in the UK.

The key benefit of multi-tasking machines is that they can produce, on a single piece of equipment, parts that would previously have required a number of separate turning and milling machines. This offers the potential for huge increases in productivity as many parts can be machined in a single set-up ("Done-In-One"), reduced costs because fewer fixtures need to be made, and greater accuracy because parts do not need to be transferred between different machines.

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Furthermore, multi-tasking machines make it practical for companies to take on more complex parts that would be too difficult or too expensive to produce on conventional milling and turning equipment.

However, many companies buying these machines are unable to achieve the expected benefits in productivity and quality because of limitations in their CAM systems. Software that has been perfectly capable of programming simple milling or turning operations proves to be unable to handle the added complexity, both of the new equipment and of the parts that need to be made.

Similarly, many users who may have relied on manual programming at the machine control find it more challenging and more time-consuming to create programs for multi-tasking equipment. To obtain the full benefit of their investment, these companies may need to invest in a CAM system for the first time. As well as offering easier and faster programming, Delcam software offers the ability to check the program on the computer before it is sent to the machine, so eliminating the need for prove-out trials on the machine.

Feature-based CAM systems offer programming speeds that are impossible with the more usual operations-based approach because they incorporate predefined machining rules controlling how and where material should be removed. FeatureCAM uses this knowledge to evaluate the part geometry and material, select the most appropriate tools and operations, recommend machining strategies, calculate feeds and speeds, and then to automatically generate the NC code. This unrivalled speed of toolpath generation means that machining of one-off parts or initial samples can be commenced within minutes of the receipt of the part model. As a result, delivery times can be reduced dramatically.

Alongside this high level of automation, FeatureCAM offers complete flexibility. Users can edit the predefined machining rules with their own customisations to tailor the results for their own range of equipment. Once this editing has been done, every job on the particular machine is cut in a predictable manner regardless of who did the programming.

In addition, a wide range of editing tools is available to optimise the initial toolpaths for series production, when the cycle time on the machine becomes more important than the programming time on the computer. This is particularly important for multi-turret and multi-spindle equipment, where the most efficient allocation of operations between turrets and spindles can have a significant impact on the overall cycle time.



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GibbsCAM's New Capabilities to be Presented at SolidWorks World 2012

24 January 2012

Gibbs and Associates announced that it will be demonstrating how GibbsCAM software is optimized for machining parts designed in SolidWorks® at the SolidWorks World 2012 Conference in the Partner Pavilion in **booth # 624**. The conference is being held from February 12-15, 2012, at the San Diego Convention Center in San Diego, CA. Gibbs has also been selected to give a presentation called “Optimize Manufacturing with SolidWorks Models and GibbsCAM Automatic Feature Recognition”. The presentation, from 5:30-5:45 p.m. on Sunday, February 12, 2012, will highlight GibbsCAM’s new capabilities that provide optimal integration between SolidWorks and GibbsCAM.

GibbsCAM, a SolidWorks Certified CAM Product, has many new capabilities providing integration between SolidWorks and GibbsCAM. These capabilities include GibbsCAM’s ability to read and preserve features from SolidWorks files, and the ability to automatically update machining processes

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when a change is made to a SolidWorks file/solid. In addition, GibbsCAM now has a capability called Hole Manger that integrates with the SolidWorks Hole Wizard to automatically read, recognize, and machine holes. Also, colors created in SolidWorks are read and preserved by GibbsCAM for use in the programming process. SolidWorks users also benefit from GibbsCAM's unique user interface, making it easy to learn and use, for both designers and manufacturing professionals.

One of the features of most interest to SolidWorks users is GibbsCAM's ability to read and preserve features from SolidWorks files. This capability, called Feature Manager, gives the NC programmer a better understanding of the part and the intention of the designer. Programmers can use the features to identify and select areas to apply machining processes, resulting in faster programming time and more accurate parts.

When there are inevitable changes to a part, GibbsCAM is equipped to handle those changes. When the updated part is transferred into GibbsCAM, it automatically updates all machining processes for that part, with a couple of clicks of the mouse, saving valuable time in the manufacturing process.

SolidWorks users will appreciate GibbsCAM's interoperability with the SolidWorks Hole Wizard capability. GibbsCAM can now read all attributes applied to the holes created by the wizard, and automatically generates tool lists and processes right down to the finished operations. This capability, called Hole Manager, is a huge time saver for programmers.

GibbsCAM now preserves all colors applied to models created in SolidWorks. Since colors applied in the design process often convey information about manufacturing processes, preserving these colors improves communication between design and manufacturing. This speeds up programming time and results in more accurate parts produced more quickly.

"We know that SolidWorks users will be thrilled with the high level of interoperability between our two products. Effective use of SolidWorks solids combined with our automated machining features make it a unbeatable combination for fast and accurate manufacturing," said Bill Gibbs, president and founder of Gibbs and Associates.

The combination of GibbsCAM and SolidWorks 2012 provides a complete CAD/CAM solution for most manufacturing environments. Whether parts have simple geometry needing only 2.5-axis milling or 2-axis turning, or complex geometry requiring use of 5-axis machining, MTM or Swiss-style turning centers, the SolidWorks-GibbsCAM combination accommodates and optimizes the machining process. GibbsCAM verifies the toolpaths with gouge detection and interference checking, then dynamically and visually simulates them on virtual machine tools, and accurately post-processes them to generate optimal NC programs. Many GibbsCAM features help users eliminate scrap, reduce cycle times, and maximize efficiency, safety and profits.

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Infor and Lawson to Host Annual User Conference April 22 - 25 in Denver

25 January 2012

Infor announced details for its annual user conference, [Inforum 2012](#), to be held at the Colorado Convention Center in Denver, April 22 - 25, and officially opened the Call for Presentations. Inforum is the largest gathering of Infor and Lawson customers, partners and experts who want to connect, learn and maximize the value of their Infor and Lawson applications.

This year's theme, "Specialized by Industry, Engineered for Speed," will help customers discover how to

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keep pace with rapidly changing business landscapes. Participating in Inforum 2012 will help customers maximize continuous innovation and thought leadership coming out of Infor -- empowering users to give their business the edge.

With more than 700 educational sessions, Inforum 2012 will be bigger and better than ever before. Customers who attend the conference will be able to:

Discover the excitement and momentum of the new Infor

Meet the Infor and Lawson leadership teams

Explore the innovations driving the newest products like Infor10, ION, Workspace, CloudSuite, Motion, and InForce Everywhere

Test drive the newest products for ERP, SCM, PLM, EAM, Financials, Performance Management, BI, CRM, HCM, and more

The conference officially kicks off on Sunday, April 22 with a welcome reception and the grand opening of the Exhibit Hall. Charles Phillips, CEO of Infor, will deliver the keynote address during Monday morning's general session, followed by a full day of industry and educational sessions. Tuesday will begin with a general session, followed by educational sessions and an evening reception with live entertainment. The conference concludes on Wednesday after a half-day of educational sessions.

Infor and Lawson rely on insight from customers and partners for the topics that matter most to build the educational curriculum for the conference. A [Call for Presentations](#) has been issued and customers and partners are invited to submit their presentation ideas by January 31.

Infor and Lawson customers are encouraged to [register](#) for the event prior to February 17th to take advantage of special early-bird rates.

Additional Resources

Note: registration may be required to access online content

Inforum 2012 Website -- <http://www.inforum2012.com>

Registration -- <https://secure.jackmorton.com/Inforum2012/>

Call for Presentations -- <https://inforum.activeevents.com/portal/cfp/cfpLogin.ww>

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Sescoi and Ingersoll Seminar Shows Machining From Start to Finish

26 January 2012

Sescoi and Ingersoll Werkzeuge GmbH held a joint seminar at Ingersoll's offices in Germany to demonstrate the complete production cycle including quotation preparation, CAD analysis, Wire EDM, CAM, CNC machining, and electrode creation.

By demonstrating WorkPLAN ERP, WorkXPlore 3D viewer, WorkNC Wire EDM, WorkNC V21 CAM, WorkNC Electrode and WorkNC-CAD Sescoi was able to show how all its software modules fit together to provide a comprehensive production solution.

Starting with a quotation created in [WorkPLAN](#), delegates could see how the software uses historic information to give an accurate cost. Once the order has been received all the information is transferred into a works order and tracked and monitored through the workshop right through to dispatch and

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invoicing, minimizing administrative effort and the possibility of human error.

With [WorkXplore](#) 3D, Sescoi showed how the CAD model could be interrogated to check for potential problems and for necessary manufacturing information. Additionally, it showed how this data could be shared around an organization and its supply chain. By facilitating involvement of more people, WorkXplore 3D speeds up the manufacturing process by making concurrent working easy.

For the machining demonstration, the blank had been pre-prepared using Sescoi's [WorkNC Wire EDM](#) software, enabling it to be cut to the optimum shape and also providing a stock model ready for the machining phase. Delegates watched the preparation of the CNC program on [WorkNC V21](#) which included several 5-axis simultaneous toolpaths. The complexity of the cutterpath highlighted WorkNC's exceptional calculation speed which is around 10 times faster than the previous version, thanks to parallel processing.

The live machining demonstrations were carried out on a Hermle C42U machine using Ingersoll tooling. These showed the speed, reliability and fluidity of the toolpaths generated in WorkNC, which enabled the machine and tooling to operate at maximum efficiency.

To conclude the day, electrodes were created for a very intricate area of the job where machining was impossible. Sescoi showed how the electrode data could be extracted directly from the model geometry and manipulated in the [WorkNC-CAD hybrid modeler](#), [WorkNC Electrode](#) and WorkNC to produce the finished electrode.

WorkNC is widely used in Germany, particularly within the automotive sector, where companies such as BMW, Volkswagen, Audi and Mercedes Benz are customers. By working in partnership with Ingersoll Sescoi has been able to clearly demonstrate the importance of high quality toolpaths for fast, reliable and automatic machining and how its supporting software can control production, produce rapid and accurate quotations, and control operations such as wire EDM and die sinking to provide a complete productivity package.

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Si2 Organizes 3D Panel at DesignCon 2012

24 January 2012

The Silicon Integration Initiative (Si2) announced the “Why Do We Need 3D Design Standards” panel session at DesignCon 2012. This panel will be held on Tuesday, January 31 in Ballroom E at the Santa Clara Convention Center, Santa Clara, CA, from 3:45 PM to 5:00 PM.

“Why Do We Need 3D Design Standards”

This panel will explore whether the design community needs 3D IC standards to accelerate the adoption of 3D design, and if so, how the standards can be implemented, the priority of these required standards, what are the challenges in doing so and how to get started. It will also provide insights on how the many different industry groups are working together to prevent overlapping efforts or missing critical areas. In a typical 3D IC, functional tiers will likely be coming from different companies and at different process nodes, and possibly different foundries as well. Without effective standards, it is difficult to efficiently integrate different tiers into a common package using best-in-class tools from multiple vendors and test the result. It is not possible to ensure a single EDA vendor flow spanning across the design of tiers designed by different companies.

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The Panelists include:

Sumit DasGupta, Sr. VP, Si2

Riko Radojcic, Director, Qualcomm

Liam Madden, Corporate VP FPGA Development and Silicon Technology, Xilinx

Raj Jammy, Vice President of Materials and Emerging Technologies, SEMATECH

Jim Hogan, Investor, Telos Venture Partners

Bryon Moyer, Writer/editor, Techfocus Media

For more information on the Panel click here: <http://schedule.designcon.com/session/6396>

For a free DesignCon 2012 Expo Pass and Conference discount, click here:

<http://www.si2.org/?page=1516>

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Financial News

ANSYS to Release Fourth Quarter and 2011 Earnings on February 23, 2012

24 January 2012

ANSYS, Inc. announced that the Company expects to release its fourth quarter and 2011 earnings on Thursday, February 23, 2012. The Company will hold a conference call conducted by James E. Cashman III, president and chief executive officer, and Maria T. Shields, chief financial officer, at 10:30 a.m. Eastern Time to discuss fourth quarter and 2011 results and future outlook.

Conference Call Information:

What: ANSYS Fourth Quarter and 2011 Earnings Conference Call

When: 2/23/2012 at 10:30 a.m. Eastern Time

Where: <http://investors.ansys.com>

The conference call dial-in numbers are (800) 860-2442 (US), (866) 605-3852 (CAN), or (412) 858-4600 (INT'L)

Passcode: ANSYS

The call will be recorded with replay available within two hours after the call at <http://investors.ansys.com> or at (877) 344-7529 (US) or (412) 317-0088 (CAN and INT'L)

Passcode: 10008769

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Aspen Technology Announces Date of Second-Quarter Fiscal 2012 Financial Results Release, Conference Call and Webcast

24 January 2012

Aspen Technology, Inc. announced that it will release financial results for its second-quarter fiscal 2012,

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ended December 31, 2011, after the U.S. financial markets close on Tuesday, January 31, 2012.

In conjunction with this announcement, AspenTech will host a conference call and webcast on January 31, 2012, at 4:30 p.m. (Eastern Time) to discuss the company's financial results, business outlook, and related corporate and financial matters.

The live dial-in number is (877) 245-0126, conference ID code 46505886. Interested parties may also listen to a live webcast of the call by logging on to the Investor Relations section of AspenTech's website, <http://www.aspentechn.com/corporate/investor.cfm>, and clicking on the "webcast" link. A replay of the call will be archived on AspenTech's website and will also be available via telephone at (855) 859-2056 or (404) 537-3406, conference ID code 46505886, through February 7, 2012.

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EMC's Fourth-Quarter and Full-Year 2011 Earnings Results Available on EMC.com

24 January 2012

EMC Corporation announced that its fourth-quarter and full-year 2011 financial results and earnings news release are now available on the EMC Investor Relations website at: <http://www.emc.com/q4-2011-earnings> and on the U.S. Securities and Exchange Commission website at: <http://www.sec.gov/cgi-bin/browse-edgar?action=getcompany&CIK=0000790070&owner=exclude&count=40>.

As previously announced, EMC will host its fourth-quarter and full-year 2011 earnings conference call today at 8:30 a.m. ET, which will be available on EMC's Investor Relations website at: <http://www.emc.com/ir>.

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Geometric Declares Revenues of Rs. 2,190.37 Mn, a Q-o-Q rise of 14.5%

23 January 2012

[Geometric Ltd.](#) announced its Q3 financial results for FY 2011-2012 at the board meeting held today.

Highlights for the quarter ended December 31, 2011

- Consolidated revenues rise to Rs. 2,190.37 Mn; a rise of 14.5% from the previous quarter revenues of Rs. 1,912.30 Mn, and 34.2% from Rs. 1,632.02 Mn in Q3FY11.
- Operating Profits rose significantly to Rs. 310.45 Mn, a 54.6% increase from the last quarter profits of Rs. 200.83 Mn and more than doubled from Q3FY11 profits of Rs. 134.52 Mn.
- Added nine new customers
- An EPS of Rs. 3.40

The company's operating revenues in US Dollar terms rose to USD 42.60 Mn in Q3FY12 from USD 41.40 Mn in Q2FY12 and USD 36.25 Mn in Q3FY11; an increase of 2.9% and 17.5% respectively. The favorable movement of the dollar-rupee ratio, helped declare higher revenues in rupee terms. The company also recorded an increase in Net Profits to Rs. 212.57 Mn from Q2FY12 profits of Rs. 133.89 Mn and Q3FY11 profits of Rs. 152.73 Mn, a rise of 58.8% and 39.2% respectively.

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Highlights for the nine-months ended December 31, 2011

The company's cumulative revenues for the three quarters of FY12 stood at Rs. 5,829.56 Mn, a rise of 29.4% from revenues of Rs. 4,505.82 for the same period in FY11. Revenues in USD terms for the nine month period also rose 24.3% to USD 122.60 Mn from USD 98.63 Mn in the same period last year. The net profits recorded for FY12 till the end of Q3 were Rs. 463.88 Mn, 16.9% higher than the profits of Rs. 396.77 Mn for the similar period last year. This resulted in an EPS rise to Rs. 7.41 compared to the nine month period EPS of Rs. 6.37 in FY11.

On declaring the results, Mr. Manu Parpia, Managing Director & CEO said, "The third quarter for IT companies is traditionally a flat quarter. This quarter we saw the benefits of our efforts towards improving our operations, and better utilization rates. The forex fluctuation has also had a positive impact on our operations, and we see continued volatility in the forex rates going into Q4. Despite the crisis in Europe and macro-economic conditions, or rather because of it, I see customers increasingly turning towards their offshoring partners for bringing in efficiencies."

The company, including its subsidiaries, had over 4400 employees at the end of the quarter.

Key wins and additional business highlights for Q3 FY12

The company added nine new customers during Q3; and new revenues of USD 3.55 Mn. Some of the significant wins in this quarter are:

An application development for automatic design validation on NX platform for a world's leading distributor of aerospace equipment

Won a process planning engagement with a precision machined components and sub-assemblies manufacturer in North America

Strengthening our technical documentation engagement for manufacturing instructions with a leading industrial turbine company to cover global locations in North America, South America and Europe

Oracle Agile PLM implementation to streamline and enable integrated food and other consumables development process for a leading CPG manufacturer from India

Plant layout design and optimization engagement with a global FMCG company for its plant in North Africa

KBE application support with the world's leading earthmoving equipment company

Application development for laser template software for a leading player in the precision cutting industry PLM application integration to enable global engineering processes for a world's leading Auto OEM

Started a key relationship with a leading mining equipment manufacturer by providing product engineering services

Other important business highlights for the quarter include:

Appointment of Mr. Arvind Kakar as the Chief Financial Officer of Geometric

Launch of a new CAM package, CAMWorksXpress to address the needs of the home machinist and the new users of 3D CAM software

Release of the 2012 version of its solids-based CNC programming solution, CAMWorks

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PTC Announces Strong Q1 Results, Increases FY'12 and Long-Term Targets

26 January 2012

PTC reported results for its first fiscal quarter ended December 31, 2011. PTC also announced an organizational realignment and restructuring to drive long-term growth and enhanced profitability.

Highlights

- Q1 Results: Non-GAAP revenue of \$319.8 million, up 20% year over year, and non-GAAP EPS of \$0.35
 - GAAP revenue of \$318.3 million and GAAP EPS of \$0.18
 - Revenue contribution from MKS (acquired on May 31, 2011) and 4CS Solutions (acquired on September 2, 2011) was \$20 million on a non-GAAP basis and \$18.5 million on a GAAP basis
 - Non-GAAP operating margin of 18.4%; GAAP operating margin of 10.2%
 - Relative to Q1 guidance assumptions, revenue was negatively impacted by \$4.6 million by currency effects and non-GAAP EPS was negatively impacted by \$0.01 due to a higher-than-expected tax rate and currency effects
- Q2 Guidance: Non-GAAP revenue of \$305 to \$320 million and non-GAAP EPS of \$0.32 to \$0.36
 - GAAP revenue of \$304 to \$319 million and GAAP EPS of \$0.06 to \$0.11, including a \$20 million restructuring charge
 - Assumes \$1.30 USD / EURO, down from previous assumption of \$1.40; a \$6 to \$8 million negative impact to Q2 non-GAAP revenue guidance. Revenue guidance assumes approximately \$22 million contribution from MKS and 4CS, including \$1 million in non-GAAP revenue
- FY'12 Targets: Non-GAAP revenue of \$1,310 to \$1,330 million and non-GAAP EPS of \$1.58 to \$1.62
 - Assumes \$1.30 USD / EURO, down from previous assumption of \$1.40 – negatively impacting Q2 through Q4 revenue guidance by approximately \$20 million
 - Non-GAAP operating margin of approximately 20%, up from approximately 18% previously, despite currency effects
 - Approximate \$5 million quarterly expense benefit from restructuring in Q3'12 and Q4'12
 - GAAP revenue of \$1,307 to \$1,327 million and GAAP EPS of \$0.93 to \$0.97, including a \$20 million restructuring charge
 - Revenue guidance assumes approximately \$90 to \$100 million contribution from MKS and 4CS, including \$3 million in non-GAAP revenue
- Initiating FY'15 target model: Key elements of our new model
 - Annual revenue growth of 11% to 13%
 - Non-GAAP gross margin target of 74% to 76%
 - Non-GAAP operating margin target of 25% to 27%

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The Q1 non-GAAP revenue results exclude a \$1.5 million effect of purchase accounting on the fair value of the acquired deferred maintenance balance of MKS Inc. The Q1 non-GAAP EPS results also exclude \$13.4 million of stock-based compensation expense, \$9.3 million of acquisition-related intangible asset amortization, \$2.1 million of acquisition-related expense, \$0.8 million in other expense and \$6.7 million of income tax adjustments. The Q1 non-GAAP EPS results include a tax rate of 25% and 121 million diluted shares outstanding. The Q1 GAAP EPS results include a tax rate of 26% and 121 million diluted shares outstanding.

Results Commentary

James Heppelmann, president and chief executive officer, commented, “PTC had a good start to FY’12, with Q1 non-GAAP revenue at the high end of our guidance range and non-GAAP EPS exceeding the high end of our guidance range. Our license revenue of \$89.1 million was up 18% on a year-over-year basis, driven by organic growth of 12%. Continuing the momentum we experienced in Q4’11, our Enterprise (PLM) business delivered very good results with non-GAAP revenue up 38% year over year and 21% on an organic basis. Enterprise (PLM) license growth increased 41% year over year and 27% on an organic basis. Revenue in our Desktop (MCAD) business increased 5% year over year. Desktop license revenue decreased 1% year over year, reflecting very strong comparable results in Q1’11.” On a constant currency basis, total non-GAAP revenue growth was 19% and license revenue growth was 17% when compared to Q1’11.

Heppelmann added, “As part of our ongoing strategy to enhance customer focus, expand our addressable market opportunities and accelerate profitability we are implementing an organizational realignment around five market sectors and restructuring our business. We expect the combination of near-term cost savings from the restructuring and the longer-term benefit of the realignment to improve efficiencies within our Sales and Services organizations. As a result of progress we’ve already made on operating margins coupled with these new initiatives, we are increasing our long-term, non-GAAP operating margin target by 500 basis points to a range of 25% to 27% by FY’15. Please join us at our upcoming investor day in New York on February 7th where we will provide further insight into our growth and margin expansion initiatives.”

Jeff Glidden, chief financial officer, commented, “From a profitability standpoint, Q1 was another solid quarter with a good mix of revenue, better than anticipated Services margins, and lower than planned operating expenses as we remained vigilant on all non-sales related hiring; we delivered \$0.35 non-GAAP EPS, this despite a \$0.01 headwind due to a higher-than-expected tax rate and currency effects. Non-GAAP EPS increased 59% from \$0.22 non-GAAP EPS in Q1’11. We ended Q1’12 with \$187 million of cash up from \$168 million at the end of Q4’11, reflecting \$36 million in cash provided by operating activities.”

Outlook Commentary

Glidden continued, “Looking to the full year FY’12, we are targeting non-GAAP revenue growth of 12% to 14%, despite an approximate \$25 million negative impact due to currency changes. We expect MKS and 4CS to contribute approximately \$90 to \$100 million in revenue for the full year, including \$3 million in non-GAAP revenue. We are expecting license revenue growth of approximately 17%, non-GAAP maintenance revenue growth of approximately 10% and services revenue growth of approximately 14%. Note that on a constant currency basis our expectation for services growth has increased by approximately 200 basis points due to continued momentum of our PLM solutions and demand for associated services. We are anticipating services net margins will increase significantly to approximately 9% for the year, and we are making good progress expanding our services partner

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program. Our new FY'12 non-GAAP EPS target of \$1.58 to \$1.62 is an increase of \$0.10 relative to our previous guidance, despite the negative impact of currency movements, reflecting our strong Q1 results, the positive impact of the restructuring on the year and our on-going focus on cost efficiency. We expect the restructuring action to benefit operating expenses by approximately \$5 million per quarter beginning in Q3'12. We expect MKS and 4CS to be slightly accretive to FY'12 non-GAAP EPS." For FY'12, the GAAP EPS target is \$0.93 to \$0.97.

The FY'12 targets assume a non-GAAP tax rate of 25%, a GAAP tax rate of 21% and 122 million diluted shares outstanding. The FY'12 non-GAAP guidance excludes approximately \$20 million in restructuring charges, \$3 million for the effect of purchase accounting on acquired MKS deferred maintenance revenue, \$51 million of stock-based compensation expense, \$36 million of acquisition-related intangible asset amortization, \$1 million of other expense, any acquisition-related expenses, and their related income tax effects.

"Based on the market momentum we are seeing, the strength of our pipeline, and our increasing sales capacity, we continue to be excited about our long-term growth opportunity," said Heppelmann. "The confidence in our long-term opportunity is supported by the 24 large deals (license + services revenue of more than \$1 million) we recognized in Q1'12. We believe this is an indicator of the strength of our pipeline for business opportunities with new and existing customers. During the quarter we recognized revenue from leading organizations such as Bell Helicopter, Continental, Danfoss, Nilfisk Advance, Samsung and Schaeffler Technologies."

Glidden added, "While we acknowledge that there continues to be uncertainty regarding the strength of the global economy, our commitment to operating margin expansion is a cornerstone of our financial strategy, which is clearly reflected in our margin performance in Q1'12 and increased outlook for FY'12 and beyond. For Q2, we are providing guidance of \$305 to \$320 million in non-GAAP revenue, which includes approximately non-GAAP \$22 million in revenue from the MKS and 4CS businesses, including \$1 million in non-GAAP revenue, and a \$6 to \$8 million negative impact due to currency effects. We are expecting approximately \$80 to \$95 million in license revenue in Q2, services revenue growth of approximately 19%, and non-GAAP maintenance revenue growth of approximately 14%, resulting in approximately 13% to 19% year-over-year growth in total non-GAAP revenue. We are expecting non-GAAP EPS of \$0.32 to \$0.36, which at the mid-point is an increase of 31% from \$0.26 non-GAAP EPS in Q2'11, reflecting our commitment to driving operating leverage in our model." For Q2, the GAAP revenue target is \$304 to \$319 million and the GAAP EPS target is \$0.06 to \$0.11, including a restructuring charge of approximately \$20 million.

The Q2 guidance assumes a non-GAAP tax rate of 25%, a GAAP tax rate of 21% and 122 million diluted shares outstanding. The Q2 non-GAAP guidance excludes \$20 million in restructuring charges, \$1 million for the effect of purchase accounting on acquired MKS deferred maintenance revenue, \$13 million of stock-based compensation expense, \$9 million of acquisition-related intangible asset amortization expense, any acquisition-related expenses, and their related income tax effects.

Q1 Earnings Conference Call and Webcast

Prepared remarks for the conference call have been posted to the investor relations section of our website. The prepared remarks will not be read live; the call will be primarily Q&A.

What: PTC Fiscal Q1 Conference Call and Webcast

When: Thursday, January 26th, 2012 at 8:30 am (ET)

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Dial-in: 1-800-857-5592 or 1-773-799-3757

Call Leader: James Heppelmann

Passcode: PTC

Webcast: <http://www.ptc.com/for/investors.htm>

Replay: The audio replay of this event will be archived for public replay until 4:00 pm (CT) on January 31, 2012 at 1-866-443-2925. To access the replay via webcast, please visit <http://www.ptc.com/for/investors.htm>.

FY'12 Investor Day

Management will host its FY'12 Investor Day on Tuesday, February 7, 2012 from 9:00am to 4:00pm (ET). This event will be held at the InterContinental Hotel New York Times Square.

What: PTC FY'12 Investor Day

When: Tuesday, February 7th from 9:00am to 4:00pm (ET)

Register: Contact Kristen Whoriskey at 781-370-5689 or

kwhoriskey@ptc.com

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

Replay: The audio replay of this event will be archived for public replay until February 13, 2012 at <http://www.ptc.com/for/investors.htm>.

Important Information About Non-GAAP References

PTC provides non-GAAP supplemental information to its financial results. Non-GAAP revenue, operating expenses, margin and EPS exclude the effect of purchase accounting on the fair value of the acquired deferred maintenance balance of MKS Inc., stock-based compensation expense, amortization of acquired intangible assets, acquisition-related expenses, restructuring charges, certain foreign currency transaction losses, and the related tax effects of the preceding items and any one-time tax items. We use these non-GAAP measures, and we believe that they assist our investors, to make period-to-period comparisons of our operational performance because they provide a view of our operating results without items that are not, in our view, indicative of our core operating results. We believe that these non-GAAP measures help illustrate underlying trends in our business, and we use the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating our performance. We believe that providing non-GAAP measures affords investors a view of our operating results that may be more easily compared to the results of peer companies. In addition, compensation of our executives is based in part on the performance of our business based on these non-GAAP measures. However, non-GAAP information should not be construed as an alternative to GAAP information as the items excluded from the non-GAAP measures often have a material impact on PTC's financial results. Management uses, and investors should consider, non-GAAP measures in conjunction with our GAAP results.

For **FINANCIALS** from the unabridged press release Click [HERE](#)

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PTC Q1 Fiscal 2012 Prepared Remarks

26 January 2012

PTC's supplemental remarks for Q1 Fiscal 2012 are available [HERE](#).

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SAP Reports Best Ever Results – Full-Year 2011 Software Revenue Increases 25% at Constant Currencies to €4 Billion – Non-IFRS Operating Profit €4.8 Billion at Constant Currencies

25 January 2012

Best Ever Software Revenue Performance: Full-Year 2011 Software Revenue Increases 22% to €3.97 Billion (25% at Constant Currencies)

Exceeding Revenue Guidance: Full-Year 2011 Non-IFRS Software and Software-Related Service Revenue Increases 15% (17% at Constant Currencies)

Exceeding Operating Profit Guidance: Full-Year 2011 Non-IFRS Operating Profit €4.71 Billion (€4.78 Billion at Constant Currencies), Resulting in Full-Year 2011 Non-IFRS Operating Margin Increasing by 1.1 Percentage Points at Constant Currencies to 33.1%

Double-Digit Earnings Per Share Growth: 23% Increase in Full-Year 2011 Non-IFRS Earnings Per Share

Record Operating Cash Flow: 29% Increase to €3.78 Billion

Strong Contribution From Innovations: SAP HANA and Mobile €270 Million

SAP AG announced its preliminary financial results for the fourth quarter and full-year ended December 31, 2011.

“SAP performed exceptionally well in 2011 clearly exceeding its guidance for revenue and profit. This record performance was driven by strong top line results with double-digit software revenue growth in all regions, resulting in year over year total revenue growth of €1.7 billion and a record cash flow,” said Werner Brandt, CFO of SAP. “We are well positioned to exceed our €20 billion revenue target and reach a 35% operating margin in 2015.”

“In an uncertain environment, we had the best year in our 40 year history and clearly outperformed the competition. We extended our leadership in enterprise applications, analytics and mobile and are reinventing the database and cloud markets,” said Bill McDermott and Jim Hagemann Snabe, co-CEOs of SAP. “We have significant momentum going into 2012, as our customers continue to benefit from faster innovation, easier adoption and our unmatched industry expertise.”

FINANCIAL RESULTS IN DETAIL

FINANCIAL HIGHLIGHTS – Fourth Quarter 2011

	Fourth Quarter 2011 ¹⁾	
	IFRS	Non-IFRS ²⁾

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€million, unless otherwise stated	Q4 2011	Q4 2010	% change	Q4 2011	Q4 2010	% change	% change const. curr. ³⁾
Software revenue	1,744	1,507	16	1,744	1,507	16	17
Support revenue	1,874	1,654	13	1,875	1,692	11	11
Software and software-related service revenue	3,720	3,273	14	3,721	3,311	12	13
Total revenue	4,498	4,058	11	4,499	4,096	10	10
Total operating expenses	-2,832	-3,514	-19	-2,718	-2,474	10	10
- thereof TomorrowNow litigation	6	-934	<-100	N/A	N/A	N/A	N/A
Operating profit	1,666	544	206	1,781	1,622	10	10
Operating margin (%)	37.0	13.4	23.6pp	39.6	39.6	0	0.1pp
Profit after tax	1,199	434	176	1,281	1,109	16	
Basic earnings per share (€)	1.01	0.37	173	1.08	0.93	16	
Number of employees (FTE)	55,765	53,513	4	N/A	N/A	N/A	N/A

1) All figures are preliminary and unaudited.

2) Adjustments in the revenue line items are for the support revenue that would have been recognized had the acquired entities remained stand-alone entities but that SAP is not permitted to recognize as revenue under IFRS as a result of business combination accounting rules. Adjustments in the operating expense line items are for acquisition-related charges, share-based compensation expenses, restructuring and discontinued activities.

3) Constant currency revenue and operating profit figures are calculated by translating revenue and operating income of the current period using the average exchange rates from the previous year's respective period instead of the current period. Constant currency period-over-period changes are calculated by comparing the current year's non-IFRS constant currency numbers with the non-IFRS number of the previous year's respective period.

Revenue – Fourth Quarter 2011

- IFRS software revenue was €1.74 billion (2010: €1.51 billion), an increase of 16% (17% at constant currencies).
- IFRS software and software-related service revenue was €3.72 billion (2010: €3.27 billion), an increase of 14%. Non-IFRS software and software-related service revenue was €3.72 billion (2010: €3.31 billion), an increase of 12% (13% at constant currencies).

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- IFRS total revenue was €4.50 billion (2010: €4.06 billion), an increase of 11%. Non-IFRS total revenue was €4.50 billion (2010: €4.10 billion), an increase of 10% (10% at constant currencies).
Fourth Quarter 2011 non-IFRS software and software-related service revenue and total revenue exclude a deferred support revenue write-down from acquisitions of €1 million (2010: €38 million).

Profit – Fourth Quarter 2011

- IFRS operating profit was €1.67 billion (2010: €44 million), an increase of 206%. Non-IFRS operating profit was €1.78 billion (2010: €1.62 billion), an increase of 10% (10% at constant currencies).
- IFRS operating margin was 37.0% (2010: 13.4%), an increase of 23.6 percentage points. Non-IFRS operating margin was 39.6% (2010: 39.6%), or 39.7% at constant currencies, an increase of 0.1 percentage points at constant currencies.
- IFRS profit after tax was €1.20 billion (2010: €434 million), an increase of 176%. Non-IFRS profit after tax was €1.28 billion (2010: €1.11 billion), an increase of 16%. IFRS basic earnings per share was €1.01 (2010: €0.37), an increase of 173%. Non-IFRS basic earnings per share was €1.08 (2010: €0.93), an increase of 16%.
- The IFRS and non-IFRS effective tax rates in the fourth quarter of 2011 were 25.9% (2010: 4.0%) and 26.1% (2010: 27.5%), respectively.
- Fourth quarter 2011 operating profit and operating margin were impacted by SAP's continued investments in go-to-market activities intended to capture future growth opportunities, resulting in a sequential increase in headcount in sales and marketing by almost 500 full-time-equivalents (FTEs). Total headcount for the Group grew in the fourth quarter by almost 1,200 FTEs compared to the previous quarter.
- Fourth quarter 2010 IFRS operating profit and operating margin were negatively impacted by the provision for the TomorrowNow litigation while there was no such effect on SAP's non-IFRS operating profit and operating margin.

Fourth Quarter 2011 non-IFRS operating profit excludes a deferred support revenue write-down from acquisitions of €1 million, acquisition-related charges of €115 million, profit from discontinued activities of €6 million, share-based compensation expenses of €3 million and restructuring expenses of €2 million (2010: €38 million, €99 million, expenses of €935 million, €9 million and -€2 million). Fourth Quarter 2011 non-IFRS profit after tax and non-IFRS basic earnings per share exclude a deferred support revenue write-down from acquisitions of €1 million, acquisition-related charges of €78 million, profit from discontinued activities of €2 million, share-based compensation expenses of €4 million and restructuring expenses of €1 million (2010: €25 million, €70 million, expenses of €575 million, €6 million and -€1 million) net of tax.

FINANCIAL HIGHLIGHTS – Full-Year 2011

	Full-Year 2011 ¹⁾	
	IFRS	Non-IFRS ²⁾

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€million, unless otherwise stated	FY 2011	FY 2010	% change	FY 2011	FY 2010	% change	% change const. curr. ³⁾
Software revenue	3,970	3,265	22	3,970	3,265	22	25
Support revenue	6,967	6,133	14	6,994	6,207	13	14
Software and software-related service revenue	11,318	9,794	16	11,345	9,868	15	17
Total revenue	14,232	12,464	14	14,259	12,538	14	15
Total operating expenses	-9,353	-9,873	-5	-9,549	-8,531	12	13
- thereof TomorrowNow litigation	717	-981	<-100	N/A	N/A	N/A	N/A
Operating profit	4,879	2,591	88	4,710	4,007	18	19
Operating margin (%)	34.3	20.8	13.5pp	33.0	32.0	1.0pp	1.1pp
Profit after tax	3,441	1,813	90	3,371	2,738	23	
Basic earnings per share (€)	2.89	1.52	90	2.83	2.30	23	
Number of employees (FTE)	55,765	53,513	4	N/A	N/A	N/A	N/A

1) All figures are preliminary and unaudited.

2) Adjustments in the revenue line items are for the support revenue that would have been recognized had the acquired entities remained stand-alone entities but that SAP is not permitted to recognize as revenue under IFRS as a result of business combination accounting rules. Adjustments in the operating expense line items are for acquisition-related charges, share-based compensation expenses, restructuring and discontinued activities.

3) Constant currency revenue and operating profit figures are calculated by translating revenue and operating income of the current period using the average exchange rates from the previous year's respective period instead of the current period. Constant currency period-over-period changes are calculated by comparing the current year's non-IFRS constant currency numbers with the non-IFRS number of the previous year's respective period.

Revenue – Full-Year 2011

- IFRS software revenue was €3.97 billion (2010: €3.27 billion), an increase of 22% (25% at constant currencies).
- IFRS software and software-related service revenue was €1.32 billion (2010: €0.79 billion), an increase of 16%. Non-IFRS software and software-related service revenue was €1.35 billion (2010: €0.87 billion), an increase of 15% (17% at constant currencies).

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- IFRS total revenue was €14.23 billion (2010: €12.46 billion), an increase of 14%. Non-IFRS total revenue was €14.26 billion (2010: €12.54 billion), an increase of 14% (15% at constant currencies).

Full-Year 2011 Non-IFRS software and software-related service revenue as well as total revenue exclude a deferred support revenue write-down from acquisitions of €27 million (2010: €74 million).

Profit – Full-Year 2011

- IFRS operating profit was €4.88 billion (2010: €2.59 billion), an increase of 88%. Non-IFRS operating profit was €4.71 billion (2010: €4.01 billion), an increase of 18% (19% at constant currencies).
- IFRS operating margin was 34.3% (2010: 20.8%), an increase of 13.5 percentage points. Non-IFRS operating margin was 33.0% (2010: 32.0%), or 33.1% at constant currencies, an increase of 1.0 percentage points (1.1 percentage points at constant currencies).
- IFRS profit after tax was €3.44 billion (2010: €1.81 billion), an increase of 90%. Non-IFRS profit after tax was €3.37 billion (2010: €2.74 billion), an increase of 23%. IFRS basic earnings per share was €2.89 (2010: €1.52), an increase of 90%. Non-IFRS basic earnings per share was €2.83 (2010: €2.30), an increase of 23%.
- Full year 2011 IFRS operating profit and operating margin numbers were favorably impacted by the re-measurement of the TomorrowNow litigation provision while full year 2010 IFRS operating profit and operating margin were negatively impacted by the TomorrowNow litigation provision. The provision in 2010 as well as the re-measurement in 2011 did not affect SAP's non-IFRS operating profit and operating margin results.
- The IFRS and non-IFRS effective tax rates in the first twelve months 2011 were 27.8% (2010: 22.5%) and 26.5% (2010: 27.2%), respectively.
- The main reason for the significant year over year difference is the change in the measurement of the TomorrowNow litigation provision. While 2010 saw a tax rate reduction of almost 5 percentage points as a result of the significant increase of the TomorrowNow litigation provision, 2011 experienced the tax rate increase resulting from the reduction of the same provision. However, this increase was offset by tax effects related to intercompany financing.
- The 2011 effective tax rate based on Non-IFRS profit was 26.5% and thus below the respective rate in 2010 (27.2%). The main reasons for the decrease were tax effects related to intercompany financing.

Full-Year 2011 non-IFRS operating profit excludes a deferred support revenue write-down from acquisitions of €27 million, acquisition-related charges of €448 million, profit from discontinued activities of €717 million, share-based compensation expenses of €69 million and restructuring expenses of €4 million (2010: €74 million, €304 million, expenses of €983 million, €58 million and -€3 million). Full-Year 2011 non-IFRS profit after tax and non-IFRS basic earnings per share exclude a deferred support revenue write-down from acquisitions of €18 million, acquisition-related charges of €303 million, profit from discontinued activities of €444 million, share-based compensation expenses of €51 million and restructuring expenses of €2 million (2010: €50 million, €221 million, expenses of €613 million, €42 million and -€1 million) net of tax.

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Cash Flow – Full-Year 2011

Operating cash flow was €3.78 billion (2010: €2.92 billion), an increase of 29%. Free cash flow was €3.33 billion (2010: €2.59 billion), an increase of 29%. Free cash flow was 23% of total revenue (2010: 21%). At December 31, 2011, SAP had a total group liquidity of €5.60 billion (December 31, 2010: €3.53 billion), which includes cash and cash equivalents and short term investments. Net liquidity at December 31, 2011 was €1.64 billion compared to -€850 million at December 31, 2010. This increase in net liquidity was mainly due to the increased operating cash flow in the fiscal year 2011.

SuccessFactors

On December 3, 2011, SAP entered into a merger agreement with SuccessFactors, Inc. a provider of cloud-based human capital management solutions. A successful closing of the acquisition will add SuccessFactors' team and technology to SAP's cloud assets, significantly accelerating SAP's momentum as a provider of cloud applications, platforms and infrastructure. Currently, we expect the acquisition to close in the first quarter of 2012.

Change in Income Statement Presentation

In light of SAP's strong focus on the cloud market, SAP intends to realign, for periods starting on or after January 1, 2012, its income statement to provide additional transparency on cloud-related revenue streams and revenues from multi-year licensing arrangements (formerly known as software subscriptions):

- ‘Cloud subscriptions and support’ will no longer be included in the line item ‘Subscription and other software-related service revenue’ but will be presented as a separate line item within ‘Software and software-related service revenue’
- Revenues from multi-year licensing arrangements and all other revenues so far included in the ‘Subscription and other software-related service revenue’ line item will be split into their software portion and support portion with these portions being allocated to the ‘Software revenue’ and ‘Support revenue’ line items respectively.

This reclassification only affects sub items of ‘Software and software-related service revenue’. The total of ‘Software and software-related service revenue’ and consequently total revenue as well as profit numbers and operating margin figures will not be affected by this change. The financial section of this press release also includes the preliminary full year 2011 income statement and the reconciliations from non-IFRS numbers to IFRS numbers under the new format.

In addition, for periods starting on or after January 1, 2012, SAP has modified the definition of its non-IFRS revenue and profit measures. See the section below called Adjustment to Definition of Non-IFRS Revenue and Profit Measures for additional details.

Business Outlook

Based on the expectation of a successful closing of the SuccessFactors acquisition in the first quarter of 2012, SAP is providing the following outlook for the full-year 2012:

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- The Company expects full-year 2012 non-IFRS software and software-related service revenue to increase in a range of 10% – 12% at constant currencies (2011: €1.35 billion). This includes a contribution of up to 2 percentage points from SuccessFactors' business.
- The Company expects full-year 2012 non-IFRS operating profit to be in a range of €5.05 billion – €5.25 billion at constant currencies (2011: €4.71 billion). Full-year 2012 non-IFRS operating profit excluding SuccessFactors is expected to be in a similar range.
- The Company projects a full-year 2012 IFRS effective tax rate of 26.5% – 27.5% (2011: 27.8%) and a non-IFRS effective tax rate of 27.0% – 28.0% (2011: 26.5%).

Major Customer Wins

In the fourth quarter of 2011, SAP closed major contracts in key regions:

EMEA

Deutsch Lufthansa AG, Bundesrechenzentrum GmbH, Lidl, Clariant International Ltd., FIAT, Vodafone

Americas

U.S. Department of Agriculture, ConAgra Foods, Inc., Ace Hardware Corporation, Delta Air Lines, Inc., Banco de Galicia y Buenos Aires S.A., Petróleos Mexicanos

Asia Pacific/Japan

Yonghui Superstores Co. Ltd., Tingyi Holding Corporation, Department of Finance and Deregulation, Usha International Ltd., Powercor, Sharp Corporation

HANA

Gonhermex, S.A. de C.V., Grupo Gonher, Schukat electronic Vertriebs GmbH, EBY-Brown Company LLC, Newell Rubbermaid, Inc., Coinstar, Inc., T-Mobile USA, Inc.

SAP Business ByDesign

EC Bioenergie GmbH, DESANO Pharmacy, Innocence Limited, Matchcode, metaio, Schaltbau Holding AG, Schukat electronic Vertriebs GmbH

Adjustment to Definition of Non-IFRS Revenue and Profit Measures

In light of SAP's strong focus on the cloud market and considering the planned acquisition of SuccessFactors, SAP widens the range of revenues for which acquisition-related deferred revenue write-downs are adjusted in determining SAP's non-IFRS revenue and profit numbers. SAP continues to adjust for deferred revenue write-downs, i.e. for revenues that would have been recognized had the acquired entities remained stand-alone entities but that SAP is not permitted to recognize as revenue under IFRS as a result of business combination accounting rules. However, in the definitions of SAP's non-IFRS measures used through 2011, such adjustments for deferred revenue write downs were limited to support revenues. From 2012 onwards, SAP will additionally make such deferred revenue write - down adjustments for cloud subscription revenues and other similarly recurring revenues.

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All other non-IFRS measures will remain unchanged. Since the deferred revenue write-down adjustments for recurring revenues other than support revenue from acquisitions that were executed through 2011 were immaterial, SAP does not restate prior period non-IFRS measures to align with the new definition.

For a more detailed description of all of SAP's non-IFRS adjustments and their limitations as well as our constant currency and free cash flow figures see Explanations of Non-IFRS Measures online (www.sap.com/investor).

Additional Information

Fourth Quarter and year-to-date 2011 revenue, profit and cash flow figures include the revenue, profits and cash flows from Sybase. For the prior-year periods those numbers were only included since the acquisition (July 26, 2010).

In 2011, SAP re-measured the provision recorded for the TomorrowNow litigation following the motion granted by the judge on the original jury verdict. The judge's decision vacated the original verdict of \$1.3 billion, but gave Oracle the choice of accepting \$272 million or seeking a new trial. The deadline for Oracle to make that choice depended on the outcome and timing of a ruling on Oracle's motion for an early appeal. The early appeal was denied on January 6, 2012, and Oracle now has the choice to accept the reduced damages of \$272 million or seek a new trial to determine damages.

The re-measurement of the provision additionally reflects currency exchange rate changes and changes in the estimate of related legal expenses. While the resulting re-measurement of the TomorrowNow litigation provision favorably impacted SAP's fiscal year 2011 IFRS operating profit and operating margin it did not have an effect on SAP's fiscal year 2011 non-IFRS operating profit and operating margin.

2011 Annual Report

SAP's 2011 Annual Report to Shareholders and 2011 Annual Report on Form 20-F are scheduled to be published on March 23, 2012, and will be available for download at www.sap.com/investor.

Webcast

SAP senior management will host a press conference in Frankfurt today at 10:00 AM (CET) / 9:00 AM (GMT) / 4:00 AM (Eastern) / 1:00 AM (Pacific), followed by an investor conference at 2:00 PM (CET) / 1:00 PM (GMT) / 8:00 AM (Eastern) / 5:00 AM (Pacific). Both conferences will be web cast live on the Company's website at www.sap.com/investor and will be available for replay. Supplementary financial information pertaining to the full-year and quarterly results can be found at www.sap.com/investor.

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Implementation Investments

ACD Implements Document Management and Change Management from Omnify Software

January 2012

CIMdata PLM Industry Summary

ACD, a leading supplier to the electronics industry, announces that it has successfully implemented the Document Management and Change Management solutions from Omnify Software.

Product documents such as design files, manufacturing files, and supplier files are critical components in managing the complete product record. Omnify Empower PLM provides a complete document management system including vaulting/revision control with check-in/check-out features, document associations to any Omnify object, multi-site, synchronized vault locations, and more. Additionally, managing the change process within Omnify's Change/ECO Management module will help ACD to develop a simplified engineering change process with automated workflows, signoff alerts and full audit trails.

"As an ISO 13485 and AS9100 EMS company, good revision control is an absolute. With the purchase of the Omnify Document Management and Change Management software, we have gone from good to best. The attitude of constant improvement is the reason ACD has become a leading manufacturer of military and medical electronics," commented W. Scott Fillebrown, President & CEO of ACD.

"Traditionally, we see contract manufacturers using PLM technology only when their customers require it," stated Jack Rountree, COO of Omnify Software. "Using PLM within their organization to create a more efficient way of communicating with their customers demonstrates ACD's forward thinking culture and commitment to continuous improvement."

The Omnify Document Management System will provide ACD with controlled editing and viewing of documents, complete revision control of all documents, and centralized storage of product data and documents. The implementation of Omnify's Change/ECO Management will eliminate manual change creation and reduce ACD's cycle times. For more information about Omnify Software's Document or Change Management solutions, visit <http://www.omnifysoft.com/Solutions>.



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Altera Adopts the Mentor Graphics Veloce Hardware Emulator to Accelerate Time-to-Market for their Next-Gen Products

24 January 2012

Mentor Graphics Corp. announced that Altera, a leader in innovative custom logic solutions, has adopted the Veloce[®] emulator platform for the accelerated verification of its next-generation products. Altera's solutions target a wide range of applications, including automotive, broadcast, computer and storage, consumer, industrial, medical, military, test and measurement, wireless, and wireline.

Altera chose the Veloce platform due to its high runtime performance, fast compiler technology, ease-of-use, excellent debug capabilities, and the ability to mix transaction-based acceleration and traditional in-circuit emulation (ICE) modes of operation. Additionally, the ability to use the Veloce platform as a shared resource across their global development teams was a considerable benefit to Altera.

"The level of integration in leading-edge FPGAs requires that we leverage the most sophisticated emulation and verification tools so that we can achieve our time-to-market goals, performance requirements, and minimize design risks in our latest device portfolio," said David Moore, director, software and IP engineering at Altera. "Using Mentor's Veloce platform lets us quickly and accurately exercise hardware designs at performance levels orders of magnitude higher than that achievable by RTL simulation and enables greatly reduced debug cycles as a result."

The Veloce platform, with dual mode accelerator and emulator, provides high performance for both

CIMdata PLM Industry Summary

transaction-based verification and traditional in-circuit emulation (ICE). With an extensive portfolio of both physical and virtual vertical market solutions, the Veloce platform is the platform of choice for multimedia, networking, wireless, storage, and embedded systems applications.

"We have worked closely with Altera to provide the best possible emulation solution that meets Altera's needs and allows them to accurately verify their next-generation designs," said Eric Selosse, Mentor Emulation Division (MED) vice president and general manager. "We are delighted that Altera benefits from our latest-generation Veloce emulators, and that they have adopted our high-performance, transaction-based acceleration (TBX), and [iSolve™](#) vertical solutions for the validation of industry-standard on-chip protocols."

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Autodesk Simulation Helps Company Create Ultimate "Go Anywhere" Craft

24 January 2012

ARKTOS Developments Ltd. (ADL) —the designer and manufacturer of a amphibious vehicle known as the ARKTOS Craft—is using [simulation software](#) from Autodesk, Inc. to prepare its products to operate in some of the world's most environmentally demanding locations.

"Using Autodesk Simulation software helped ARKTOS to accurately predict product performance on a nearly limitless vehicle," said Robert "Buzz" Kross, senior vice president, Manufacturing Industry Group at Autodesk. "The extreme environments our customers are successfully analyzing are a testament to how accurately Autodesk Simulation technology can simulate real world performance."

Originally designed as an amphibious evacuation craft for Arctic offshore oil facilities, the ARKTOS Craft can move from frigid -50°C (-122°F) temperatures, through burning flames, and back again, as in the case of evacuating a burning oil rig. Additionally, the ARKTOS Craft can easily navigate ice-rubble fields, ice ridges and open water—and can even climb up or down vertical steps—making the ARKTOS Craft a highly capable exploration craft for a variety of extreme climates.

Valmont West Coast Engineering (Valmont), which provides finite element analysis (FEA) services to ADL, was responsible for predicting vehicle performance in these severe environments: "We used Autodesk Simulation technology to predict critical stresses for the ARKTOS at extreme temperatures and loading conditions," said Ioan Giosan, Ph.D., P.Eng at Valmont. "After finding an optimal design using FEA methods, we relied on physical testing and field use to validate the accuracy of our results."

Digitally Optimizing Performance

The key to the ARKTOS Craft's mobility is an articulated arm between the vessel's two main compartments. As the Craft climbs up onto an ice shelf from the water, the hydraulics in that arm help push the front unit of the Craft up out of the water so that the special track spikes can grab the ice.

Using the multiphysics capabilities of Autodesk Simulation, Valmont was able to show ADL engineers how thermal stress caused by temperature extremes would combine with mechanical stress within the articulated arm between the units. Additionally, since the arm would see repeated compressive and tensile loading, Valmont also analyzed fatigue life using the Autodesk Simulation multiphysics tools.

"We continue to modify the original ARKTOS Craft design for each of our new customer's unique needs," said Bruce Seligman, president at ADL. "Autodesk software makes it easy for us to design new attachments for the craft, and then simulate how those modifications will affect performance. Sharing

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early concepts and engineering analysis results with stakeholders digitally is a critical part of our development workflow today and is all powered by Autodesk software.”

ARKTOS Craft units are currently operating in Alaska, China, and the Caspian Sea in Kazakhstan.

About ARKTOS Developments Ltd.

Headquartered in British Columbia, Canada, ARKTOS Developments Ltd. is the manufacturing body for the high mobility amphibious Craft known by the registered trademark of ARKTOS. For additional information, visit <http://www.arktoscraft.com>.

About Valmont West Coast Engineering

Valmont West Coast Engineering provides Finite Element Analysis (FEA) and other engineering services. In business since 1977, Valmont West Coast Engineering designs, engineers, and manufacturers applications for energy transmission, support structures, telecommunication towers, lighting and a variety of specialty projects. For additional information, visit <http://www.valmont.com>.

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Cadac Organice Develops Further into an International Supplier

24 January 2012

In 2011, Cadac Organice BV, a Microsoft Gold ISV Partner, has further developed into an international supplier of solutions for Engineering Document Management and Control based on Microsoft SharePoint. The organization expanded worldwide and the Cadac Organice Software Suite was implemented to numerous new customers.

Economical and financial crisis

Despite of the economical and financial crisis, engineering and construction companies continued to invest in improving business processes and increasing efficiency and productivity. Microsoft SharePoint has been fully adopted as a stable and flexible platform for Enterprise Content Management and Project Collaboration. In combination with [Cadac Organice](#) that enriches SharePoint with functionality for Engineering Document Management and Control, SharePoint provides these industries the best solution to fulfill their requirements. Since the introduction of the Cadac Organice Cloud Solution, it is available as an on-premise as well as a flexible hosted solution.

Document management and control in the cloud

The [Cadac Organice Cloud Solution](#) was introduced in September 2011, and since then has been implemented by a number of leading international companies for engineering projects. Customers of the Cloud Solution include FMC Technologies, Weatherford International, Royal Haskoning, Volker Infra and Food Center Amsterdam (City of Amsterdam). All these companies have opted for a flexible project environment for collaboration with external partners, without the internal IT organization or infrastructure burden.

Growing number of customers and licenses

Worldwide, Cadac Organice BV showed further growth in the number of customers and sold licenses. New customers are active in different [market segments](#), including oil & gas, mining, chemical, building and construction, engineering, power and energy. New customers include [Maersk Oil & Gas](#), [FMC Technologies](#), [Weatherford International](#), [Newcrest Mining](#), [Visser & Smit Hanab](#) and [Mourik](#).

Organizational expansion

In 2011, Cadac Organice BV further expanded their international operations by opening an office in Frankfurt, Germany. Gert Jan de Kieviet, former CEO of Sword CTspace, joined the European organization and David Parry, former CTO and co-founder of McLaren Software, joined the US organization.

Jan Baggen, CEO Cadac Group Holding BV: “We are proud that 2011 has become our best year ever in our 25-year anniversary, despite a turbulent year in global terms. With revenue of 29M Euros (5% growth) and net profit of 3M Euros (25% growth), Cadac Group is one of the best performing companies in the industry.”

Click [here](#) for the press release on the results of Cadac Group Holding over 2011.

The final results over 2011 will be presented in the second quarter of 2011, after the annual stakeholders meeting.

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CDS CAD Download Solution Now Live on CUI Inc Website

24 January 2012

CDS ([Catalog Data Solutions](#)) announced that the CUI Inc website now incorporates the CDS CAD download solution.

[CUI Inc](#), based in Tualatin, Oregon, is a technology company dedicated to the development, commercialization, and distribution of new, electro-mechanical products in the areas of power, motion control, interconnect, and audio. “We recognize that the industrial buying process has changed. Designers now research and select products online, often before talking to a supplier,” said Jeff Schnabel, VP Marketing, CUI. “Our website has become a key sales tool not only to enable customers to quickly find the “right” product, but equally importantly, to help customers ‘design-in’ our products by offering CAD downloads that simplify the process and save designers time. After evaluating several vendors, we chose the CDS ModelServer SaaS solution for its flexibility, adaptability and configurability.”

“We’re delighted to have implemented this solution for CUI,” said John Major, CEO CDS. “As product selection and buying continues to change and evolve, sales and marketing organizations need to continually come up with ways to get in front of the selection and buying cycle. CUI has done just that, with CAD downloads that ensure their products both remain in contention and exploit a new advantage made possible by the new process. Of the many types of online marketing content (e.g. white papers, case studies, brochures, videos, demos, recorded webinars, reviews, CAD model downloads, etc.) only one is known to lead to a sale nearly 50% of the time! CAD downloads may be the most efficient online marketing tool available.”

CDS helps industrial suppliers and distributors grow sales and strengthen customer loyalty through interactive online product catalogs, ecommerce, 3D CAD model delivery and product configurator solutions.

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Fujitsu Semiconductor Expands Use of Calibre for Advanced IC Physical Verification and Design for

Manufacturing

23 January 2012

[Mentor Graphics Corporation](#) announced that Fujitsu Semiconductor Limited has expanded its use of the Calibre® platform, incorporating the latest Calibre physical verification and design for manufacturing (DFM) capabilities in its design enabling flow for all Fujitsu Semiconductor projects, including its most advanced analog and digital designs. The selection was driven by the Calibre product's accuracy and performance, which address design complexity at advanced nodes, as well as new Calibre productivity features. For example, the Calibre platform provides pattern matching for fast identification of litho hotspots and other design rule check (DRC) violations, automatic waivers for managing rule waivers during DRC, programmable electrical rule checking (PERC) for reliability verification, and the SmartFill function to realize advanced timing-aware filling for DFM.

"Exponentially increasing design complexity is something we must consider as we and our customers develop products on more advanced processes," said Hiroshi Ikeda, director of the System LSI Technology and Design Platform Development Department at Fujitsu Semiconductor Limited. "Our designers need tools that improve designer efficiency and help achieve reduced time-to-market targets. The Calibre platform addresses these needs by making complex design rule checks easier to specify, by tracking waivers automatically, and by automating electrical checks that we have been forced to perform, mostly by hand, in the past. We also believe that the Mentor SmartFill fill solution is needed to achieve faster and less intrusive DFM filling to keep up with more advanced nodes."

The Calibre Pattern Matching solution provides automatic pattern capturing capability to create multi-dimensional layout verification rules, resulting in a smaller number of rules to be described and shorter verification time. Pattern-based rules also help to speed up the feedback loop when problematic layout patterns are detected during manufacturing and testing.

The Calibre Automatic Waivers system allows information about approved design rule waivers to be included directly in the design database, automatically eliminating spurious DRC violations. This saves designers a significant amount of time because they do not have to debug or re-validate waivers during the implementation process.

The Calibre PERC product enhances overall design reliability by providing a fast verification environment to check design constraints related to electrostatic discharge (ESD), latch-up and other analog design factors that previously had to be checked through visual inspections.

By optimizing fill shapes for multiple objectives and across multiple layers, the Calibre SmartFill tool produces a layout that is more robust with fewer manufacturing and post-fill induced timing issues. Fujitsu Semiconductor and Mentor Graphics are working closely to enhance Fujitsu Semiconductor's DFM methodology by incorporating the SmartFill tool at advanced process nodes.

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Mori Seiki NLX and NVX Machines Set To Increase Market Share for Fife Fabrications

27 January 2012

Fife Fabrications (FiFab) purchased its third and fourth Mori Seiki at the London WorldSkills 2011 event to cope with the growing demand for its products. The decision to purchase at this event is appropriate as FiFab actively supports local schools and colleges, near its base in Glenrothes, and has nine apprentices onsite to grow its own skills base for the future.

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The new Mori Seiki NLX2500MC mill-turn centre and the NVX5100 vertical machining centre will be working alongside the company's existing NL2500 and NL3000 lathes to service FiFab's customers in the oil and gas, medical, bioscience and defence industries. John Penman Sales Director from FiFab says, "We are experiencing annual growth rates of 20% in our oil and gas business driven by the increasing cost of fuel. The 4th axis on the NLX2500MC expands our capability to achieve one-hit machining, which will reduce manufacturing times and increase the accuracy and the overall quality of our products, which will, in turn, help us to grow our market share."

Adding more Mori Seiki machines was an easy decision for FiFab. John Penman says, "We have had the NL lathes for some time and the reliability and repeatability has been outstanding. The backup and service is good and they very rarely breakdown. The Mori Seiki machines have served us well so it makes sense to stick with them to maintain compatibility in our workshop."

Both the NLX and the NVX benefit from massive high quality castings manufactured by Mori Seiki and have slideways on all the axes to further improve the dynamic rigidity of the machines and their vibration damping capabilities. The exceptional rigidity increases tool life and heavy duty cutting performance. New measures to reduce the effect of thermal displacement include air and oil cooling pipes around the spindle and coolant circulation inside the castings to achieve displacements of less than 7µm on the NVX and 2µm on the NLX.

John Penman comments, "We are a leading edge company producing high technology products and we need leading edge technology to stay competitive in a global market. The continuous improvement of productivity, efficiency and quality is crucial to our success. Mori Seiki works in partnership with us to help us meet our customer's exacting demands. In my opinion you get what you pay for and Mori Seiki provides all round good value. The reliability and build quality of the machines will ensure that they will still be productive in 12-15 year's time."

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NASA's Jet Propulsion Laboratory Begins Widespread Adoption of Maplesoft Technology

25 January 2012

Maplesoft announced a major adoption of its products by NASA's Jet Propulsion Laboratory (JPL). JPL is implementing Maple, MapleSim, and MapleNet in its various projects. Whether creating America's first satellite, Explorer 1, sending the first robotic craft to the moon, or exploring the edges of the solar system, JPL has been at the forefront of pushing the limits of exploration.

Curiosity, JPL's latest space rover, launched at the end of November, aims to explore Mars to investigate whether the planet could have ever supported microbial life. Current JPL projects include spacecraft missions to comets, asteroids and the edge of the solar system, as well as satellites that monitor the land, oceans, and atmosphere of our own planet.

Maplesoft products are expected to help JPL save time and reduce cost by providing more efficient and smarter methods for mathematical analysis, modeling, and simulation. Maplesoft solutions are built within a natively symbolic framework, avoiding some of the worst sources of error and computational inefficiencies generated by traditional, numeric-based tools – thus providing great tools for precision-rich projects such as those of JPL.

In addition to using Maple for advanced mathematical analysis, JPL will use MapleSim, Maplesoft's high-performance physical modeling and simulation platform, as a key tool in its engineering workflow.

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MapleSim works in combination with Maple. It accesses Maple's symbolic computation technology to efficiently handle all of the complex mathematics involved in the development of engineering models, including multi-domain systems, multibody systems, plant modeling, and control design.

"Maplesoft products will allow JPL to unify their approach to mathematics, modeling, and simulation," says Paul Goossens, Vice President, Applications Engineering, Maplesoft. "MapleSim's intimate connection to the underlying physics of the system models, combined with the knowledge capture and analysis capabilities inherent in Maple, will make project design and development faster and more accountable. JPL scientists will arrive at optimal solutions much faster, and their models will be much more reusable."

Maplesoft technology is also being used in other space robotics research. Dr. Amir Khajepour, Canada Research Chair in Mechatronic Vehicle Systems and Professor of Engineering in the Mechanical and Mechatronics Engineering department at the University of Waterloo, is working with the Canadian Space Agency (CSA), to develop a full solution for the power management system of autonomous rovers. His team is using MapleSim to rapidly develop high fidelity, multi-domain models of the rover subsystems.

Visit <http://www.maplesoft.com> to learn more.

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PCO Innovation is Involved with the Normalization of Engineering Practices at Alstom Transport

19 January 2012

PCO Innovation has announced the success of its ambitious engineering team training program on new design methodologies for Dassault Systèmes' CATIA tool at Alstom Transport.

Following PCO Innovation's involvement with the development of the new methodologies, Alstom Transport selected the company to design the training program and deploy it to over 1100 users in 10 countries. A genuine challenge due to the scope (24 modules and 110 methodologies), the cultural diversity, the sheer amount of people to train, the steep learning curve requiring severance from old habits and the tight deadline.

PCO Innovation engineered the training program and mobilized 15 instructors for more than a year, all of whom were tasked with dispensing the training program and providing coaching and assistance throughout the world while relying on complex logistics involving the use of the "flying classroom" concept.

As stated by Christine Sainjon, the training program manager at Alstom Transport: "PCO Innovation, in partnership with our engineering managers, our BIS organization and human resources, has allowed us to complete this ambitious project involving the normalization of practices while displaying availability, responsiveness and more notably a great sense of duty."

About PCO Innovation

Founded in 2000, PCO Innovation is the largest independent international service group specializing in the field of Product Lifecycle Management (PLM). PCO Innovation counts over 600 consultants and experts within its ranks serving 140 clients in 30 countries, of which some are world leaders in a wide range of industries. Combining its experience with advanced technologies and industrial processes, PCO Innovation offers value-added consulting, integration, maintenance and project management services to

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its clients throughout the world. For further information please refer to: <http://www.pco-innovation.com>

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Toyota Industrial Equipment Manufacturing (TIEM) Selects aPriori for Product Cost Management

23 January 2012

aPriori announced that Toyota Industrial Equipment Manufacturing (TIEM) has selected the aPriori software platform to reduce current product part costs and enable its design engineers to manage product costs more effectively in the design process. aPriori will provide TIEM's design and cost engineers with real-time, detailed cost analysis both pre- and post production to help avoid unnecessary costs throughout the product lifecycle.

Toyota offers a full line of high-quality lift trucks and has been the number-one selling lift truck brand in North America since 2002. The majority of [Toyota forklifts](#) sold in the U.S. and Canada are manufactured at TIEM in Columbus, Indiana and are popular due to their quality, reliability and durability. [aPriori's Product Cost Management software](#) platform provides TIEM with the ability to instantly and precisely determine the cost of [a part or product from a CAD model](#), based on the materials to be used and the volume of parts to be manufactured. Engineers can get a [real-time cost assessment](#) at any time during the design process and immediately understand the impact of any design alternative. Using this new level of cost knowledge, the company can make more informed design decisions and significantly reduce product costs earlier in the product lifecycle.

“With access to detailed cost information, our design engineers can now better understand the cost implications of different product designs as they work,” said Dave Land, manager of design engineering for TIEM. “At the same time, our purchasing teams can leverage aPriori to identify existing product parts where we might be paying too much and source them more cost effectively. This will enable us to produce existing products and launch new products at or below target costs. We also expect to eliminate expensive rework and cost-reengineering cycles and get products to market faster.”

“aPriori empowers all parts of an organization to effectively impact product cost,” said Stephanie Feraday, aPriori’s president and chief executive officer. “Purchasing is always concerned with cost, but other personnel may not have the right tools to effectively identify the best opportunities for cost savings. On the other hand, product cost is generally not a primary concern of design engineers. They need easy to use tools to help them understand the cost implications of their designs. With aPriori, TIEM engineering and purchasing teams both have the ability to access precise cost assessments in real-time as they design and source. This enables them to identify and realize product cost savings quickly and easily.”

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Varian Medical Systems Uses SAP to Support Sustainability and Compliance With REACH and RoHS

26 January 2012

With increasing public scrutiny and regulations regarding product safety and sustainability, manufacturers are taking the initiative to ensure they are protecting the health of both their consumers and the environment. Varian Medical Systems, a leading manufacturer of medical devices, is one such company that embarked on a mission to understand the chemical composition of its products, enabling it

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to redesign its components and products to reduce or eliminate hazardous substances and comply with regulations such as RoHS and REACH. The company turned to SAP AG to embed compliance across its business processes and achieve this more quickly, effectively and profitably.

Using the SAP® Environment, Health, and Safety Management (SAP EHS Management) application with product compliance functionality and the SAP® Product Life Cycle Management (SAP PLM) application, Varian was able to protect revenue from RoHS-related charges, reduce the efforts involved to re-design its components and re-engineer its products at a much faster pace.

Touching hundreds of thousands of lives each year, Varian is a \$2.6 billion company that creates medical devices, software for treating cancer and other medical conditions with radiosurgery, and X-ray imaging for both medical and industrial purposes. In 2010 Varian introduced a new mandate for corporate social responsibility, which included far-reaching sustainability goals. In addition, the company faced increasingly strict legislation restricting the types of materials and chemicals contained in its equipment, particularly from the RoHS directive specific to medical devices and the REACH legislation that governs products entering the European Union.

Since Varian derives approximately 30 percent of its business from sales to European Union countries, it worked with SAP to reduce risk that might occur due to non-compliance with REACH regulations. Additionally, with new RoHS regulations governing medical device manufacturers coming into effect by July 2014, Varian made it a priority to re-engineer its products to help ensure that they were created with a dual focus on sustainability and compliance.

To tackle these complex challenges, Varian is using SAP EHS Management with product compliance functionality and SAP PLM. The solutions help the company mitigate risks, achieve considerable return on investment (ROI) and reduce the time to implement engineering changes from 18 to five days within the next 12 months. Using SAP solutions, Varian was able to more quickly re-engineer its products for compliance, saving money annually in RoHS-related charges alone. Many aspects of the product compliance process were made more efficient. For example, Varian now avoids late-cycle changes because compliance checks are embedded into the design process. Additionally, it is much faster and easier to adjust administrative functions to any corresponding engineering change.

"With sustainability solutions from SAP, Varian has established a platform that allows us to collect and analyze product information from within Varian and from our supply chain, determine compliance status and design for compliance at a faster pace," said Snehashish Sarkar, senior manager, Enterprise, Varian Medical Systems. "RoHS and REACH regulations have definitely given an impetus to our sustainability efforts. Based on our philosophy, Varian not only wants to save lives but demonstrate its commitment to social and environmental causes. With SAP we have both furthered our corporate social responsibility goals and ensured that we can continue to do business as usual in the European Union beyond 2014."

The majority of Varian's important master data already resides in SAP systems, and the company uses SAP® Business Suite as its platform for manufacturing, procurement and sales. Selecting SAP solutions for sustainability and PLM was a natural choice. Another key differentiator for Varian was that by using SAP solutions across the board, it was able to more easily embed product compliance controls across company business processes. For example, many of Varian's customers want to understand the environmental and compliance status of the products they intend to buy from a RoHS point of view before they sign the purchase order. With integration between the SAP product compliance solution and Varian's SAP application for sales order management, the company is now able to do a compliance analysis and report immediately at the quotation stage.

"We believe that business can be equally committed to both sustainability and profitability, and our

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products are designed to make that possible," said Peter Graf, chief sustainability officer, SAP. "Companies like Varian are increasingly dedicated to a sustainable supply chain and products, for both environmental and financial reasons. Varian shows how one can achieve both goals with significant cost savings and return on investment."

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Yamaha Standardizes on Synopsys' Processor Designer after Cutting DSP Development Time in Half

25 January 2012

Synopsys, Inc. announced that Yamaha has adopted the Synopsys Processor Designer™ tool for the development of its custom-designed digital signal processing (DSP) devices. Using the Processor Designer tool to automate the design and implementation of its XMP-1 DSP, Yamaha doubled the number of sound channels for their high definition sound generator device and taped out six months, or 50 percent, earlier compared to their previous generation device. The design team cited the Processor Designer tool's complete flow, including the generation of an assembler, linker, C-Compiler and instruction-set simulator (ISS), easy-to-use processor description language and optimized RTL output as the differentiating reasons for choosing the tool.

"XMP-1 delivers 32-channel phrase sound generation, AudioEngine™ rich sound effects and LED direct control functionality for amusement or digital consumer applications – a level of functionality not possible with fixed hardware. Processor Designer made the DSP development process easier to attain higher quality," said Morito Morishima, department manager of product development for the semiconductor division at Yamaha Corporation. "With Processor Designer, we doubled functionality for our high definition sound generation DSP, developing it in just one year, including the entire software development tool chain, while reducing cost."

Yamaha's design team found the LISA processor description language of the Synopsys Processor Designer tool easy to use, helping reduce development time by more than 50 percent versus traditional methods. In addition to doubling the number of sound channels in the XMP-1, Yamaha designers were able to reduce the device's silicon size by 20 percent. The added flexibility of a software-based solution enabled the design team to add new algorithms after initial design completion without compromising quality or extending the design schedule. Processor Designer's generated C-Compiler was a key benefit as well. Given the small size of the project's engineering team and limited schedule, manually developing a C-Compiler would have been nearly impossible.

"Increasingly, companies like Yamaha find that fixed hardware does not provide the flexibility they need to optimize functionality, performance and power for their specific application," said John Koeter, vice president of marketing for IP and systems at Synopsys. "Processor Designer offers not only flexibility through software programmability, but also a highly automated flow that produces the RTL design as well as the software development environment. Yamaha's results demonstrate that designers can achieve the optimal design tradeoffs with reduced risk and development cost."

Processor Designer accelerates the design of both application-specific processors (ASIPs) and programmable accelerators through automated software development tools (assembler, linker, debugger, C-compiler), RTL and instruction set simulator (ISS) generation from a single, high-level specification. ASIPs and programmable accelerators are increasingly essential to support the convergence of multiple functionalities on a single system-on-chip (SoC). This makes them ideal for use in a wide variety of applications including video, audio, security, networking, baseband, control and industrial automation

applications.

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Product News

CONTACT and BETA CAE Systems Launch a Development Partnership

26 January 2012

CONTACT Software and BETA CAE Systems have launched a development partnership to incorporate the field of product validation into Product Lifecycle Management (PLM). This will enable two leading software manufacturers in their relevant fields to bundle their know-how: CONTACT in PLM and BETA in the field of simulation. The cooperation aims to close the gap which has previously existed between the worlds of CAD and analysis with an integrated range of solutions. This kind of trans-discipline support in PLM context is in particularly high demand among automobile manufacturers and suppliers, as well as other sectors in the manufacturing industry, to speed up the development process and improve the traceability of verification results.

The virtual simulation of product characteristics such as statics, acoustics, vibration or crash and fatigue behaviour is currently inadequately incorporated in the PLM processes of companies. But as changes between analysis and construction have to be compared on an ongoing basis, error sources occur on several occasions when transferring information from one system to another and any necessary amendments must be made manually. CONTACT and BETA aim to create an efficient and productive landscape for optimising components from the geometry through to verification, which makes these breaks in processes, and the associated disadvantages with regard to time, costs and quality, obsolete. "By combining simulation and PLM, design and verification methods, the key areas in the innovation process can be supported throughout", explains Dimitrios Angelis, president of BETA CAE systems, outlining the goals of the partnership.

CONTACT managing director, Karl Heinz Zachries, highlights the high synergy effects created from this cooperation. While CONTACT covers product development from the early phase through to series production with its PLM platform CIM DATABASE, the CAD data management solution Workspaces and the Fast Concept Modeller (FCM), BETA is a leading provider in the field of simulation, with its flagship product suite of ANSA pre-processor and µETA post-processor, plus other CAE tools. "We have products which complement each other perfectly, a large joint customer base and, most importantly, also speak the same language", states Zachries - a statement he believes is underlined by the success of the cooperation to date. Based on use cases, both companies are currently working with customers to specify the scenarios for simulation data management in PLM context and are working on an initial prototype, which is planned to be ready for presentation at the CONTACT User Meeting 2012 in the middle of June.

BETA CAE Systems

BETA CAE Systems S.A. is an engineering software company committed to the development of best-in-class pre- and post-processing solutions for multidisciplinary CAE applications. BETA CAE Systems product suite holds a worldwide leading position in the CAE software, setting the standard in CAE pre- and post-processing in many sectors, including automotive, railway, aerospace, motor sports, chemical processes, energy, electronics, heavy machinery, power tools, and biomedical.

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Delcam Adds New Strategies for Roughing and Turn-Mill to FeatureCAM

23 January 2012

Delcam has launched the 2012 R2 release of its FeatureCAM feature-based CAM system, which includes important new strategies for roughing and turn-mill operations, alongside a range of more general enhancements to allow faster toolpath generation.

The main addition to FeatureCAM 2012 R2 is a series of new strategies for 2.5D roughing. These include a continuous spiral option to minimise wear on the cutter and machine tool, high-speed roughing options, including trochoidal machining and Delcam's patented Race Line Machining, and "tear-drop" moves to clear corners more smoothly. In addition, more styles of leads and links can now be used to give greater overall efficiency for the toolpaths.

Stepovers for 2.5D mill roughing can now be set as large as the tool diameter itself. Previously, stepovers were limited to 50% of the tool diameter and, if this limit was exceeded, the toolpath would leave stands. The new algorithm supports larger stepovers by providing extra moves automatically to clean up those stands.

Other milling improvements include an option to add an extra profile pass exactly at the base of flat pockets, the ability to use face-milling tools with chamfered edges to machine chamfers as well as faces and so minimise the number of tools needed, a choice of right- or left-handed thread-milling tools resulting in either climb or conventional machining of the thread, and the ability to reduce calculation times by saving boundaries as curves if they will be needed for subsequent calculations.

Roughing has also been improved for users of turning equipment that can operate with live tooling. A new option allows cutting with a live milling tool, while the workpiece is rotating in the turning spindle. This approach avoids the issues associated with interrupted cutting and ensures regular chip breakage, so removing any chance of wrap-around by the swarf.

Turn-mill programming has been improved with the addition of more flexible five-axis positioning. For example, any amount of negative b-axis movement available can be used, so avoiding extending the y limit too far back into the machine. Switching the positioning angles in this way makes editing easier to keep the machine within its travel limits.

Another turn-mill improvement is support for cylindrical interpolation, which allows toolpaths to be created with NC code for a plane and then wrapped around a cylinder. This approach, which can also be used for four-axis milling, allows cutter compensation to be applied when calculating the toolpath and gives smaller NC code files.

All FeatureCAM users will benefit from improvements to the simulation module. In particular, they will see much faster results through the use of multiple cores for these calculations. In addition, the ability has been included to save a position during the simulation, for example, while toolpaths are being edited, and then to run the simulation from that position rather than from the start.

Other general enhancements include direct cutting and pasting of models between FeatureCAM and Delcam's PowerSHAPE design and data repair software, and the ability to create machining configurations on a network as well as on an individual computer, so saving time and encouraging consistent results from different users.

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MSC Software Announces New Releases of Patran and MSC Fatigue

23 January 2012

MSC Software Corporation announced its new 2012 releases of [Patran](#) and [MSC Fatigue](#). The new releases, scheduled to be available for download in early February, provide engineers with significant modeling productivity, extended nonlinear and failure event simulations, and improved capabilities for predicting product fatigue life.

For more details about the Patran and MSC Fatigue 2012 releases, visit www.mscsoftware.com/patran and view the new release videos.

Accelerate Modeling Productivity

The Patran 2012 new Model Browser Tree is introduced to help users efficiently navigate through the menus and also access and modify various aspects of their model. In addition to being intuitive and easy to use, the tree is also customizable so that users can adjust to suit their process. Easily visualizing, accessing, and manipulating database entities through the model tree reduces learning curves, increases productivity and makes Patran even more intuitive to use. The Model Browser Tree is available on Windows and Linux platforms.

Perform Extended Nonlinear & Failure Event Simulations

Engineers can analyze more nonlinear events and also study failure more accurately. Newly supported capabilities include cohesive zone modeling and virtual crack propagation for failure analysis, enhanced support for contact that include segment-to-segment contact detection, contact table enhancements and new nonlinear elements.

The cohesive zone modeling technique is used to simulate delamination or crack growth and is especially beneficial for composite structure failure analysis. Virtual Crack Closure Technique is popular in simulating crack growth using a simple, but general way to evaluate energy release rate of a crack. The segment-to-segment contact method implemented in Marc and MSC Nastran and now supported in Patran, provides improved accuracy and overcomes the limitations of master segment-slave node approach of the traditional node-to-segment contact method. This method is well suited for both higher and lower order elements and provides smoother contact stresses.

Other contact enhancements include shell edge-to-edge, shell edge-to-solid face, and beam-to-solid face contacts with support for moment carrying glue, and also improved contact table support for breaking glue, anisotropic friction and wear factor. Several new 1D, 2D and 3D element formulations implemented in MSC Nastran and Marc are also now supported by Patran, providing engineers with more tools and options to analyze nonlinear models more accurately.

Predict Fatigue and Product Failure

Several fatigue analysis types have been updated as part of the new solver in MSC Fatigue 2012. MSC Fatigue uses stress or strain results from finite element (FE) models, variations in loading, and cycling material properties to estimate life-to-failure.

Both the traditional Stress-Life (S-N or total life) and Strain-Life (E-N, local strain or Crack Initiation) methods are available. With minimal knowledge of fatigue analysis, users can perform such evaluations directly in their familiar FE modeling environment. The intuitive interface and the speed at which the

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fatigue analysis is performed enables durability concerns to be moved up front in the product development cycle, thus avoiding costs due to re-designs, prototyping and testing.

MSC Fatigue Shaker in the 2012 release predicts the fatigue life of components subjected to a single input random vibration load. Shaker table tests are widely specified and are routinely used to “proof test” components before sign-off. Additionally, analysis of spot welds using MSC Fatigue 2012 Spot Weld can help users build optimized designs and reduce prototyping and testing costs. MSC Fatigue 2012 also includes a new structural stress based Seam Weld module as well as the traditional weld classification approach (BS5400/ BS7608 etc.) for the fatigue design of weldment details.

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New fe-safe™ Component for ANSYS Workbench

January 2012

Safe Technology Limited announced the release of the fe-safe™ Component for ANSYS Workbench, enabling the integration of accurate design durability analysis into the Workbench project environment.

fe-safe™, from Safe Technology, is a comprehensive suite of fatigue analysis software for finite element models. It is used to accurately calculate fatigue from FEA, showing where and when fatigue cracks will occur, the factors of safety on working stresses (for rapid optimisation) and the probability of survival at different service lives (the ‘warranty claim’ curve). Workbench from ANSYS provides methods for interacting with the ANSYS family of solvers. This environment provides a unique integration with CAD systems and the user’s design process.

fe-safe™ has always interfaced directly with ANSYS finite element analysis software; the fe-safe™ Component for ANSYS Workbench is an added capability offered free of charge to fe-safe™ users and allows close integration and comprehensive data exchange between Workbench and fe safe.

The component allows for fe-safe™ either to be inserted into an existing project schematic in Workbench, or to be defined as a standalone system, with fatigue analyses being conducted from within Workbench.

“We are delighted to provide increased usability to fe-safe™ users by offering the capability to integrate their fatigue analyses more closely with the overall design process within the Workbench development framework” Ian Mercer, Software Director, Safe Technology Ltd.

“Workbench includes tools for extensibility that facilitate the creation of tight-knit joint solutions by our partners and customers,” said Barbara Hutchings, Director of Strategic Partnerships. “The fe-safe™ Component for [ANSYS](#) Workbench is a great example of how our software partners can harness this power and deliver an ever-broader portfolio of engineering simulation technologies for ANSYS customers.”

For further information on this new product email info@safetechnology.com

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OpenText Brings Business Process Solutions to Windows Azure

23 January 2012

OpenText announced the expansion of its global alliance agreement with Microsoft Corp. to include

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wider support for Microsoft cloud computing initiatives. As part of the agreement, OpenText's [newly formed](#) Business Process Solutions (BPS) Group will be delivering a set of process management and case management solutions on the Windows Azure cloud computing platform.

OpenText was among the first enterprise software vendors to add support for Windows Azure with records management and archiving solutions announced [over three years](#) ago. More recently, the OpenText [M3 modeling](#) suite achieved Windows Azure competency last year. Now, the tighter alignment between the two companies will give customers more flexibility in the way OpenText applications are deployed: fully in the cloud, on-premise or a hybrid of cloud and on-premise.

This latest agreement extends the current OpenText-Microsoft agreement to encompass OpenText BPM and Microsoft cloud technologies. It represents a four-year commitment of technology and customer-facing resources and fits within OpenText's broader strategy to offer customers a full range of cloud-based solutions along with flexible deployment options.

To bring the cloud to life, OpenText and Microsoft will work together to develop industry-specific applications tailored to business and user requirements in industries, such as financial services, oil and gas, utilities and public sector. Going beyond just moving existing applications to the cloud, the companies will also be collaborating on new scenarios that take full advantage of the elasticity, availability and connectedness of cloud-based computing.

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Synopsys Collaborates with Sigrity to Accelerate Signal Integrity Analysis

25 January 2012

Synopsys, Inc. and Sigrity, Inc., a market leader in signal and power integrity solutions, unveiled an enhanced solution that accelerates signal integrity simulation of high-speed systems. In the latest release of the HSPICE® circuit simulator, Synopsys has employed in-memory communication to deliver deeper integration with Sigrity's signal integrity analysis offerings. In addition, the HSPICE 2011.09 release provides enhanced multi-core simulation performance, improved accuracy in statistical eye-diagram analysis, and new multi-core enabled S-parameter and W-element analysis. The combined Synopsys and Sigrity solution offers up to 3X faster simulation of signal and power integrity analysis of multi-gigahertz designs.

Sigrity's solutions are widely used with HSPICE for signal, power integrity and electromagnetic interference analysis of high-speed boards, packages and integrated circuits. Sigrity tools generate interconnect models in either a traditional format or in Sigrity's Broadband Network Parameter (BNP) format, which contains richer frequency domain data in a compact format. HSPICE 2011.09 has been enhanced to support the BNP format using a unique API that facilitates direct in-memory communication between HSPICE and Sigrity's electromagnetic solver, improving simulation throughput, accuracy and convergence.

"Many Sigrity customers have made major investments in HSPICE over the years and rely on it as a trusted gold-standard of circuit simulation," said Raymond Y. Chen, senior vice president of Sigrity. "Sigrity has pioneered several application-specific electromagnetic analysis solutions integrated with HSPICE that provide the accuracy essential for high-speed designs in an environment that supports rapid design improvement."

"Signal integrity analysis of high-speed systems requires fast and accurate HSPICE simulation, as well

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as specialized analyses provided by the HSPICE Integrator Program (HIP) partners such as Sigrity," said Farhad Hayat, senior director of marketing at Synopsys. "The latest improvements in the HSPICE 2011.09 release for signal integrity analysis, combined with the large ecosystem of HIP partners, give designers access to best-in-class simulation and analyses for designing high-speed integrated circuits, printed circuit boards and packages."

HSPICE Special Interest Group Event

Synopsys will host an HSPICE Special Interest Group (SIG) dinner on January 31, 2012 at the Santa Clara Marriott Hotel. At this event, attendees will have the opportunity to speak with Synopsys HSPICE R&D personnel, as well as select HIP partners, including Sigrity. During the dinner, attendees will hear what technical representatives from Altera, Broadcom, Cavium and Micron have to say about using HSPICE in some of today's most challenging designs. Circuit designers and managers interested in attending this event can register online at <http://www.hspice.com>.

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Tekla BIMsight 1.4 Takes BIM to the Field with Windows Tablets

24 January 2012

Tekla BIMsight now offers a well-designed user interface for Windows tablet computers, thereby enabling use at construction sites. As before, it is an easy-to-use BIM tool available for everyone in the construction industry to download and use for free.

New features in version 1.4 of the BIM ([building information modeling](#)) software, take the application to the construction site. The software now has a user interface optimized for tablet computers. Features include support for multi-touch hand gestures as well as stylus use. Depending on your working environment, you choose which interface you want: desktop or tablet.

This new release enhances the use of Tekla BIMsight in the design coordination process. You can use saved views for efficient project navigation and the new slideshow feature delivers impressive presentations.

The success of Tekla BIMsight continues with an ever growing user base of construction professionals and industry recognition. Tekla is committed to offering the construction industry an easy-to-use tool, allowing any construction professional to explore BIM and enjoy the benefits of timely project delivery and fewer RFIs (request for information).

"We developed this version from conversations with our users and the industry and we will continue this practice in the future. The suggested ideas forum at www.teklabimsight.com and other user feedback really helps us to create a BIM product the construction industry has been asking for," says Stephen Jones, Tekla BIMsight product manager.

"Tablet computers are becoming an integral part of construction industry workflows and BIM creates huge opportunities for more effective interaction between the construction site and the office," Jones continues. Tekla BIMsight is free and to be used for design coordination in all BIM projects - big and small. Download Tekla BIMsight 1.4 software for free at www.teklabimsight.com.

[Video tutorials](#) and an online customer community make it easy for anyone in the industry to get started with visualizing and communicating with building information models.

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Theorem Provides Long Term Data Archiving (LTDA)Solutions using STEP and JT

24 January 2012

Theorem Solutions provides long term data archiving solutions using STEP and JT to Archive Engineering and Manufacturing data!

Businesses of all sizes must archive engineering and manufacturing data in order to meet legal and product liability obligations, however, historically, it has only ever been possible to archive 2D data using formats like Tiff, CGM or even microfilm. Whereas today's 3D data contains much richer content and can be archived as full representations.

3D CAD data is proprietary though, so unsuitable for long term data archiving. Eventually, operating systems and hardware used to create and store 3D data will also become obsolete.

STEP and JT are now considered the safest formats to use because they are neutral standards based formats that aren't proprietary

Choosing a format to get proprietary data into is not a complete solution

Using Theorem's Long Term Data Archiving Solutions powered by TPM (Theorem Process Manager) which incorporates automated validation & checking procedures at the point of archive completes the process by avoiding corrupt or invalid legacy data being stored.

Theorem's automated Long Term Data Archiving tools stop the costly problem of legacy data arising. Theorem can tailor and automate the entire archival process in-line with existing procedures and processes to migrate current 3D design data into the STEP or JT data formats then validate and check that the archived data has been correctly created and stored. Email notifications are sent at every point of the process!

Theorem's automated Long Term Data Archiving solutions can be of benefit:

Remove the cost of maintaining Legacy Data and Proprietary Systems

Provide a solution to stop the problem of legacy data arising again

Help maintain data for 35-50 years

Integrate and automate validation and checking applications in to the process.

Process and validate existing legacy data in to the chosen archive format

Provide automated notification and support interactive review of corrupt or invalid data

Define automated alternate solutions for data that fails the standard process. This may include changes to acceptance criteria

Assist in the selection of archive format

Provide STEP and JT translators

Tailored solutions to meet any Long Term Archiving requirement inline with existing procedures and processes

Theorem's CADverter translation products have 20+ years of industrial use, robustness and quality is well proven, reducing your business risk.

To find out more about Theorem's automated tailored solutions Please [click here](#)

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Visure Solutions' IRQA Offers Requirements Engineering Solution for Embedded Systems

25 January 2012

Visure Solutions, a market leader in Requirements Engineering, announced the release of IRQA Systems Engineering Template <<http://www.visuresolutions.com/systems-engineering>> , an IRQA extension designed to address the challenges of increasingly complex embedded software systems. Embedded systems raise a plethora of design issues—diversity of platforms and architecture, increased regulatory compliance, mechanical constraints—that create a complex requirements matrix that can no longer be maintained through manual methods. As a field-proven requirements engineering tool, IRQA <<http://www.visuresolutions.com/irq-a-requirements-tool>> improves the quality and tracking of embedded system requirements through automated requirements specification and change management. Visure Solutions' IRQA offers companies a way to gain assurance that their software functions as specified and can meet product deadlines.

The importance of reliable embedded systems has grown significantly as more and more of the infrastructure that maintains our lifestyle, economics, and society depend on embedded software. This criticality has led to increased regulation of embedded systems by governments and industries that require companies to prove compliance by tracing each requirement through all stages of development and testing to validation. IRQA is a best-of-breed requirements solution that enables system and requirement engineers to improve the quality of requirements definition as an essential first step in boosting software quality.

“Embedded systems now permeate every aspect of our lives, playing a significant role in automobiles, industries, medical devices, energy smart grids, and many other critical systems,” noted Baldo Rincón, CEO of Visure Solutions. “For many companies in these domains, regulatory requirements push their ability to manage system requirements beyond the ad-hoc paper processes they have used, causing budgets and development time to balloon out of control. IRQA enables companies to regain control not only of their own development, but of the regulatory processes and validation proof that is now an integral part of product development.”

Applied to the Embedded Software Requirements Lifecycle, IRQA becomes the process backbone. The requirements process metamodel, including all the requirement-related artifacts, their relationships, and their interactions with the users, are graphically represented, showing compliance through all stages of software development. IRQA helps standardize and enforce the requirements definition across the organization, formalize a common requirements specification structure, and handle changes throughout the lifecycle. With IRQA, project collaboration—whether between various software groups or with hardware or mechanical contributors—becomes easier as specific information can be communicated and shared both inside and outside the company.

IRQA helps avoid pitfalls and mitigate risk at all levels, from writing better requirements and prioritizing needs to providing the industry’s best change impact analysis capabilities. As requirements are written, IRQA Quality Analyzer <<http://www.visuresolutions.com/irq-a-quality-analyzer>> performs semantic analysis to give each requirement a quality rating based on such weaknesses as ambiguous words, conditional sentences, poor structure, implementation suggestions, overlapping requirements, inconsistent use of units, and even legibility. For FMEA standards, the IRQA Systems Engineering Template includes the capability for risk assessment when performing failure modes and effects

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analysis. IRQA's change impact analysis ensures that midstream requirements changes don't breach the feasibility constraints or create budget overruns.

In a January 2010 study comparing requirements management tools, Collaborative Product Development Associates (CPDA), an analyst firm specializing in product lifecycle management solutions, released a scorecard on requirements management tools <<http://www.cpd-associates.com/index.cfm?content=welcome&CFID=47765&CFTOKEN=74707992&jsessionid=8430c7a64869ad0517a9f1b235f72653>>. Despite IRQA being a relatively new offering, CPDA was "surprised" by several advances IRQA delivered. In addition to praising IRQA's graphical representation of requirements and requirements management, CPDA asserted: "Feasibility analysis is best covered by IRQA, to the full extent of the capabilities needed."

IRQA supports a wide range of development processes, including traditional V and waterfall, as well as supporting the shift toward a more iterative process. Thanks to a central repository, developers are not limited to a web experience, but gain desktop control with the complete functionality of the IRQA solution, even when geographically dispersed throughout the world. IRQA's structure also supports product families and variants, ensuring that a well-defined set of requirements will be faithfully rendered for each project without the error-prone work of recreating those requirements each time.

"Visure Solutions has established itself as a leader in requirements engineering by assisting with projects in industries such as automotive, aerospace and defense, renewable energies, and high-speed rail," added Rincón. "IRQA's process clarity and graphical representation ensure that companies have the information they need to manage current development processes, determine the feasibility of system changes, or reuse components in future product lines."

Armed with these tools, system engineers can create high-quality requirements that are clear and unambiguous. Eliminating the guesswork and misinterpretation for design teams increases the likelihood of delivering correct systems the first time and on budget. As well, IRQA can interoperate with most popular design, test, project, and user management tools, and it has open APIs and a Plug-in SDK for customization. More information on integration is available online at <<http://www.visuresolutions.com/irqa-integrations>>.

A demonstration of how Visure Solutions addresses embedded system design and the presentation of the IRQA Systems Engineering Template will be viewable in **Hall 4, Stand 418** at Embedded World 2012 from February 28 to March 1 in Nürnberg, Germany. Almudena Díez, Senior Consultant at Visure Solutions, together with Brim Lubos, iFEST, Masaryk University Brno, will present a technical paper on "A study of challenges and practices of Requirements Engineering and Analysis discipline within Embedded Systems Domain," on February 29, in Session 4, at 10:00 a.m.

About Visure

Through its IRQA platform, Visure offers specialized solutions for requirements engineering that enables its customers to develop the highest-quality products, systems and services. IRQA's quality and state-of-the-art features are endorsed by the world's leading organizations. Visure's team has deep and wide-ranging experience in the development and implementation of requirements solutions.

Visure Solutions is headquartered in Tres Cantos, Madrid, Spain with branch offices in the United States, Germany, and Sweden. Visure has leading distributors worldwide in Austria, Belgium, Brazil, Canada, China, Colombia, Denmark, Finland, France, Germany, Italy, India, Luxembourg, Mexico, The Netherlands, Norway, Pakistan, Portugal, Spain, Sweden, Switzerland and the United States, among others. For more information, please visit <http://www.visuresolutions.com/>

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