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CIMdata News

CIMdata 2011 North American Vendor Forum Inspires Its Attendees

1 April 2011

On Thursday, March 31, CIMdata successfully concluded its 2011 North America PLM Vendor Forum. The agenda included the State of PLM including leading trends, data on the 2010 PLM market providing insight into revenue leaders, areas of expansion for PLM and much more. Forward looking topics included PLM is Green, PLM and the Cloud and the future of CAD. To obtain a flavor of this event, please check out the tweets at [#CIMdata2011VF](#).

You are invited to join us at our upcoming 2011 [Vendor Forums](#) in Europe and Japan.

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CIMdata PLM Industry Summary

PLMisGreen: Enabling a Green Product Lifecycle (CIMdata Commentary)

30 March 2011

In recent years, manufacturers across all industries have had to contend with an expanding list of increasingly stringent and complex regulations governing issues such as health, safety, recyclability, and materials traceability. Complying with these regulations is now a fact of life in most industries, where the new business mantra is “comply or die.”

Tough New Green Regulations & Requirements

For years, regulatory compliance applied mostly to pharmaceutical, food and beverage, medical devices, and aerospace companies—industries with governmental regulations requiring them to be able to identify the precise components or sources of materials/ingredients (e.g., in the case of an identified problem such as pharmaceutical side effects in patients, food recall, or accident).

Considerable focus is now being made on environmental regulations and sustainability (or “greenness”) issues for companies around the world that are “going green.” Some of the toughest such regulations are in the European Union (EU), including the Restriction of Hazardous Substances (RoHS) and closely related Waste Electrical and Electronic Equipment (WEEE) directives. An even more detailed directive is Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)—an 849-page set of regulations described as the most complex in the history of the EU. End of Life Vehicle (ELV) is another “green” directive aimed at reducing the amount of waste from vehicles when they are finally scrapped. China, Japan, South Korea, and various other countries along with a number of US states are adopting many of these regulations and in some cases authoring similar ones.

Failing to comply with these regulations can be extremely costly in terms of fines, penalties, recalls, and negative publicity that can haunt a company for years and damage brand value. Products may be banned for sale in certain countries, even if a hazardous material threshold is exceeded on a single part such as a resistor, capacitor, or power cable. Also, delays in demonstrating compliance can slow or halt a product launch, potentially leaving products stacked in warehouses while forms are retrieved, material levels verified, and approvals sought. The impact to profitability can be staggering and long lasting.

Further complicating this is the consumer’s view and opinion regarding what makes a “green” product. Not only does a product need to meet all applicable regulations, but it also has to be considered to be “green” in the ever-changing eyes of the consumer. This requires new and innovative approaches to design for lifecycle sustainability. This is a holistic design approach that requires an understanding of all aspects of a product’s life so that the lifecycle impact on the environment is minimized, for example:

The product is designed to use the least amount of raw materials that in turn are the most eco-friendly available

The product and manufacturing processes are virtual designed, simulated, and optimized thereby eliminating or significantly reducing the number of physical prototypes

The product’s work instructions, assembly instructions, operating manuals, etc. are delivered electronically thereby eliminating or significantly reducing the amount of paper used

The product is manufactured and shipped in the most eco-friendly manner possible

The product is serviced and recycled in the most eco-friendly manner possible

This approach requires the application of product lifecycle management in a broad sense—one that utilizes a consistent set of business processes, and data creation and management tools focused on

optimizing a product's greenness.

The Critical Role of PLM

In complying with the increasing number and complexity of green regulations and requirements, too much is at stake to rely on manual operations and analyses performed late in development. For a growing number of companies, Product Lifecycle Management (PLM) enabling technologies and processes are becoming indispensable in optimizing a product's greenness. PLM technologies and processes are enabling organizations to compile, correlate, analyze, support, and report against a growing list of green regulations and requirements.

By giving people access to product data when they need it in a form they can readily use, PLM's data management solutions serve as a unified conduit of data exchange and efficient workflow for a wide range of product-related processes, including green lifecycle design. Additionally, simulation and analysis, computer-aided design, and other PLM enabling technologies are providing the data creation and optimization capabilities needed to truly optimize a product's greenness.

Independent software solution companies have developed a variety of industry-specific compliance management solutions over the years. Now the major comprehensive PLM solution suppliers are either establishing working relationships to satisfy these needs or developing targeted solutions of their own. With a specialized PLM solution targeted toward compliance with particular regulations or green focus, users can readily check and optimize product content from a range of sources—including bills of materials, design specifications, and parts lists. This data can in-turn be cross-checked against applicable regulation requirements in the early stages of development and the product's overall green requirements.

Analytics and reporting capabilities generally found in PLM solutions are often used to determine and help communicate the status of compliance to appropriate individuals so that corporate risk is minimized and the product's environmental sustainability can be measured. In such solutions, material content may be automatically analyzed against acceptable levels for individual components as well as the entire product. Reports can be automatically generated to conform to appropriate governmental agency requirements as well as specialized formats used by the company to track the product's green targets for material content, weight, manufacturing waste and energy use, packaging composition, etc. Solutions also may provide comparative views, tabular listings, and analytic reports for substance use, threshold levels, recyclable content, and more.

The Value of Designing for Green

The good news for the entire industrial community is that companies of all sizes in all industries can now utilize PLM-enabling technologies in this manner to integrate green concepts into every phase of product development up-front rather than merely check it at the end of the process. With such an integrated approach, manufacturers streamline the process and avoid expensive late-stage changes as well as explore alternatives to improve green designs while meeting various governmental and market requirements.

The value of these solutions is that companies can take a proactive approach to gain a significant competitive advantage now and in years to come by efficiently speeding green products to market, avoiding the oppressive costs of non-compliance, and establishing themselves as leaders in concerns for environmental issues. An overall green approach to product lifecycle management not only enables a company to design, produce, and deliver greener products to the market, but it also can help the company increase the product's perceived value to the consumer as well as decrease associated lifecycle costs for the consumer and the company. PLM is truly a green enabler.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. Visit <http://www.CIMdata.com> for more information.

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Company News

AVEVA Opens Office in Bogota, Colombia

1 April 2011

AVEVA announced the opening of a new office in Bogotá, Colombia.

Bogotá will be the main AVEVA hub for the Caribbean and South American countries situated in the north of the region. The office will act as a regional sales and support centre for the AVEVA Plant and Marine products, as well as providing a range of integration and consulting services for AVEVA's Enterprise Solutions.

"Latin America is an important market for AVEVA and we continue to expand our presence throughout the region", said Richard Longdon, AVEVA's CEO. "Over the last decade we have dramatically increased the number of AVEVA employees in line with our ambitious revenue objectives. We recognise how important it is to provide local service and support. AVEVA will continue to invest in the success of our Latin American customers."

"Not only is the Latin American market growing, but we are seeing increasingly complex product and service requirements from our customers," added Santiago Pena, AVEVA's vice president of Latin America. "With the new Colombian office and our well established network throughout the region, our team is meeting the demanding expectations for world-class solutions and service. Major project wins with new companies in both the plant and marine industries is clear evidence of our customers' confidence in AVEVA's technology and service."

The Bogotá office address is:
AVEVA COLOMBIA S.A.S.
World Trade Center
Calle 100 No. 8ª - 49
Torre B, PH, Oficina 22.
Bogotá. Colombia

Phone: +57 1 6467142

Fax: +57 1 6461102

Sales email: miguel.guia@aveva.com

Support email: soporte.latam@aveva.com

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Biesse to Resell Delcam's ArtCAM Woodworking Software

31 March 2011

Delcam has appointed Biesse as a reseller for its ArtCAM range of woodworking and signmaking software in the UK. The agreement will allow Biesse to supply ArtCAM Express and ArtCAM Insignia with its range of CNC machinery. ArtCAM Express is the entry-level version, for users new to CNC machining, while ArtCAM Insignia is a more advanced version for production machining.

The agreement follows successful trials of ArtCAM with Biesse's new Klever machine during a Biesse Open House held towards the end of last year. Post-processors for ArtCAM have now been developed for the majority of the Biesse range and proven on a series of sign examples.

"We are extremely pleased that Biesse has chosen to offer ArtCAM with its machinery," said Mick Hemmings, ArtCAM Sales Manager at Delcam UK. "It is a great endorsement for our software to be selected by such a leading company with its strong reputation for innovation and research."

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Dr. Richard Johns to lead CD-adapco's Internal Combustion Engine Team

31 March 2011

CD-adapco announced the formation of a new Internal Combustion Engine Team, to be led by Dr. Richard Johns, a globally recognized expert in bringing advanced automotive engine CFD to industry for over 35 years.

In his new role as Vice President of the Internal Combustion Engine Team, Dr. Richard Johns will be in overall control of all aspects of CD-adapco's engine simulation technology, including STAR-CD v4 solver development, pre and post processing development, ICE related technical support, testing and project management.

Dr. Johns joined Perkins Engines in 1969 as a student and, after graduating in 1973 with a degree in mechanical engineering, joined their research department. After 2 years of developing cycle simulation and thermal analysis software, Perkins supported his PhD study at Imperial College under Prof. David Gosman in engine CFD. During his 5 years at Imperial College he developed computational methods for the flow in diesel engine cylinders and the first discrete droplet spray model applied to in-cylinder flows. He was awarded his PhD in 1980 for this work. He subsequently joined AVL in Graz, Austria where he established the CFD software group and was also responsible for the laser diagnostics used for validation of the computations. In 1987 he joined Ricardo where, again, he established a CFD software group and was subsequently responsible for both the commercial software business and engineering CAE applications. He was appointed President of Ricardo Software in 1995 and, in 1998, to the Board of Ricardo Consulting Engineers Ltd. He joined CD-adapco in 2005 as Director for the Automotive Industry, a position that he will now relinquish for his new role.

"Whether it's a new fuel, new combustion model or a new lightweight material, realistic simulation is an integral tool in successfully bringing new technologies to market," said Richard. "CD-adapco is the long-time leading provider of CFD technology to the automotive industry, with over two decades of intake-to-tailpipe industrial know-how. In this new role, I am excited to be able to play a pivotal role in extending CD-adapco's lead in this market, and I am fully dedicated to helping our customers to meet all

of the challenges that ICE simulation has to offer.”

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From Microsoft Outlook to the Sims, 3D Mice Can Now be Used with Any Application

31 March 2011

[3Dconnexion](#) announced 3DxWare 10, a driver platform that extends the usage of 3D mice to any application, from Microsoft® Office® to internet browsers and from media players to games. With over a million units sold, 3Dconnexion 3D mice are the tool of choice for engineering and design professionals working in sophisticated 3D environments. And now with 3DxWare 10, 3Dconnexion 3D mice can also handle everyday applications with ease. Beta versions of 3DxWare 10 for PC and Mac can be downloaded for free from <http://www.3dconnexion.com/anywhere>.

Proven in 3D, Now Works Anywhere

Previously, only users of specialist 3D applications benefited from the intuitive, six degrees-of-freedom 3D navigation delivered by a 3Dconnexion 3D mouse. Now, the simple 3DxWare 10 interface allows users to assign keyboard strokes and traditional mouse or joystick movements in any combination to the 3D mouse. Tilt the controller cap to scroll a Web page, twist the cap to adjust the volume in iTunes, or use all six axes to pilot a helicopter in Battlefield Bad Company 2. The choice of application and assignment of the six axes and up to 32 function keys (depending on the 3D mouse model) is entirely up to the user.

“The 3DxWare 10 driver platform represents a new era for our 3D mice,” says Dieter Neujahr, president of 3Dconnexion. “Our customers have told us they want to be able to use their 3D mice with everyday applications. This technology lays the foundation for our products to be used far more widely, ultimately allowing us to extend the advanced features of our 3D mice to anyone who works with a computer.”

Much More Than a Mouse

3DxWare 10 offers limitless possibilities for incorporating 3D mice into everyday use, including:

Documents and Browsers: 3D mice now offer an alternative to traditional mouse wheel navigation in documents, spreadsheets and Web pages. Gently tilt the 3D mouse cap to scroll the view up or down or twist the cap to zoom in and out.

Games: Most PC gamers rely on a combination of a traditional mouse and keyboard to control their character or camera view, but with 3DxWare 10 a 3D mouse can be used to deliver intuitive and comfortable control in games like The Sims™ 3. It’s also possible for the 3D mouse to emulate a joystick or gamepad for a rich 3D experience in games such as Microsoft Flight Simulator, Wings of Prey and Need for Speed.

Media Players: Controlling the volume, track selection or position is typically handled by the traditional mouse and keyboard shortcuts. With a 3D mouse, you can twist the cap to adjust the volume, tilt the cap sideways to fast forward and rewind, and tilt the cap forward or backward to move between tracks in your playlist. And if the user prefers other controls, they can easily customize the 3D mouse to best suit their needs.

3D Collaboration: 3DxWare 10 also provides a new feature for professional users by allowing multiple 3D mice to be used on one workstation. This innovative development enables easier viewing of 3D models in group design reviews or client presentations.

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The 3DxWare 10 beta platform for PC and Mac is available for download at <http://www.3dconnexion.com/anywhere> and is compatible with 3Dconnexion's current line of 3D mice, including the SpacePilot PRO (MSRP \$399), SpaceExplorer™ (MSRP \$299), SpaceNavigator (MSRP \$99) and SpaceNavigator for Notebooks (MSRP \$129).

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Gerber Scientific, Inc. Announces Organizational Changes

30 March 2011

Gerber Scientific, Inc. reported that John Hancock, President of Gerber Technology, will be leaving the company, effective April 30, 2011. Marc Giles, Gerber Scientific, Inc. President and CEO will assume leadership responsibilities for the Gerber Technology ("GT") business segment.

"We thank John for his many contributions to Gerber Technology and the key role he played in driving GT's growth strategy over the past few years. We wish him well in his new endeavors," said President and CEO, Marc Giles.

Giles also announced that as part of the company's transformation plan, Gregg Williams has joined the company in the newly created position of Vice President of Marketing, Product Management and Service. Gregg has a solid background in marketing, sales and service with a strong focus on identifying and capitalizing on customer and market needs.

"We continue to make progress in our overall business model transformation and our growth plans for GT are a critical component of that strategy," said Giles. "This flattening of our organizational structure while increasing our sales and marketing bench strength will allow us to be more nimble and responsive to market opportunities in the Apparel and Industrial Segment."

Giles concluded, "We are continuing to focus on further optimizing our business portfolio and operating model while reducing our cost structure and accelerating new product development. We are also committed to achieving our financial performance target of 8+% annual sales growth and double-digit operating margins by fiscal 2013."

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Gerber Technology's James Arthurs to Retire at Year End

28 March 2011

Gerber Technology announced the planned retirement of James Arthurs, a 31-year veteran of the company best known for leading the company's foray into international apparel and industrial markets and solidifying Gerber's leadership position in the Asia-Pacific region. Arthurs, who is senior vice president of Gerber Scientific and chairman of Gerber Technology, will retire at the close of 2011.

"When I joined Gerber, we were the only provider of automated cutting solutions," noted Arthurs. "We had a total of 200 cutting systems throughout the world and only 10 in Asia-Pacific. Today, we provide CAD systems, automated spreaders and PLM systems to more than 6,000 customers throughout the Asia-Pacific region. In fact, more than one-half of the top 100 companies in China rely on our solutions to help them be more productive with everything from pattern design to spreading and cutting parts with

CIMdata PLM Industry Summary

precision.”

In 1980, Arthurs, relying on statistical data and market research, anticipated the expansion of market opportunities in the Asia-Pacific region. He planned and orchestrated Gerber Technology’s entrance into this market with the formation of a distributorship in Japan and the opening of an office in Hong Kong that served agents in other countries in the region. He also established the company’s operations in Latin America, Africa and countries of the former Soviet Union.

Gerber supported many businesses as they began using automation solutions to increase their productivity and profitability. “We grew together with tens of smaller apparel manufacturers and helped them blossom into multi-million dollar organizations,” said Arthurs. “In contrast to many other CAD/CAM suppliers who are active in the Asia-Pacific region, Gerber has always been known not only for its innovative products but also for the consistency and continuity of its management team, with several individuals boasting a two-decade-plus continuum of service to the company and to customers.”

Gerber and its agent/distributor network staff 145 offices throughout the world and operate in 129 countries. “Gerber has always acted nimbly, foreseen trends and understood the importance of being where our customers need us,” added Arthurs. “The apparel industry has migrated into and out of many regions and as our customers embraced automation, we partnered with them to understand their challenges and provided solutions to help them become and remain profitable. As they grew, our product solutions, operations and support of them also grew.”

Arthurs predicts the market in China will continue to expand. “Currently, China produces some \$300 billion worth of garments – a full 40 percent of the world’s apparel production. But, with a population of 1.3 billion, the country’s domestic consumption is and will continue to be a major driver of production for domestic use.”

To help fulfill this demand, Gerber is expanding its manufacturing and engineering operations in China and re-cited its commitment to the region with the appointment of Tom Finn to president of Asia-Pacific. “Tom and I will be working closely in the coming months to ensure a smooth transition,” assured Arthurs. “The baton is being passed and I have every confidence that his experience and commitment to customer satisfaction will be the building blocks for the next generation of Gerber automation solutions in the region. Tom will also rely on the support of individuals who have been leading the charge in China for decades.”

Arthurs concluded, “Garment manufacturers in Asia-Pacific are facing many of the challenges manufacturers in other regions of the world have overcome in years past. Labor and material costs are increasing and the big brands are placing more demands on their suppliers than ever before. The challenge is to produce more for less while improving quality and that can only be achieved through the use of automation. Of course, at the foundation of it all are personal relationships built on decades of trust. We have worked hard to nurture our relationships with customers. They rely on our solutions to help grow their companies, feed their families and the families of their employees and that is not a responsibility we have ever taken lightly.”

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Graphic Products North America Inc. is Renamed to CGS North America Inc as of March 21st 2011

30 March 2011

In Jan 2010 Computer Engineering of Japan and Graphic Products of Japan merged into one company

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named C&G Systems Inc. To be consistent with the parent company's name Graphic Products North America Inc. is now CGS North America Inc.

We will continue to distribute our Elite Product CAM-TOOL in North America. In addition CAM-TOOL is available as an Add-in to SolidWorks. It is named CG CAM-TOOL for SolidWorks.

CGS North America Inc. (Windsor, Ontario) announces [CAM-TOOL](#) Version 7.1 Release and demonstration at Amerimold 2011 in Rosemont Illinois **Booth 658** April 13th & 14th at the Donald E Stephens Center.

CGS North America Inc. (Windsor, Ontario) announces [CAM-TOOL](#) Version 7.1 will be demonstrated at EASTEC 2011 West Springfield MA **Booth 5748** May 17-19th at the Eastern States Exposition

CGS North America Inc. invites anyone with questions to contact them at 519-737-6009 or info@camtool.com

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Mastercam 2011 Innovator of the Future Competition Gives Teachers a Chance to Accelerate Their Students' Careers

31 March 2011

CNC Software, Inc. announced the 2011 Mastercam Innovator of the Future (IOF) national competition. This competition entices students with a real-world manufacturing challenge, celebrity judge, and a chance to win a scholarship. The competition also provides instructors with a powerful motivational tool to get students excited about learning CAD/CAM and the manufacturing process.

The Challenge

For the 2011 competition, students are challenged to design and machine a working guitar capo. Winners will be selected based on several criteria including accuracy, creativity, and cleanliness of the part among other criteria.

The Celebrity Judge

The 2011 IOF competition will be judged by Mark Summers, the co-founder and current president of CNC Software, Inc. Mark's combined interests in machining and guitars—he has been playing guitar for over 20 years—makes him a great judge of both functionality and manufacturing skills.

The Awards

Everyone who enters the competition receives an exclusive Mastercam IOF shirt. The student who creates the winning entry will be awarded a \$1,000 scholarship to the school of their choice. In addition, the winner and their Mastercam instructor will receive a trip to Tolland, Connecticut to tour the CNC Software world headquarters. Mastercam IOF recognition plaques will go to both the winner and their school. The winner's instructor will also receive a limited edition Mastercam IOF polo shirt.

Competition Rules

All entries to the Mastercam 2011 IOF competition are subject to the following requirements:

- The part must be programmed with a licensed copy of Mastercam software.
- The part must have a professional look and remain consistent with the theme industry standards.

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- The part must adhere to the specifications.
- Tell us the story behind your part entry; the inspiration for its design, materials used, etc.
- Include photos of you holding the part, your instructor, the school lab, and the CNC machine. Electronic files are preferred.
- The entry must consist of one finished, unpainted part.
- All entries become the property of CNC Software, Inc. Parts cannot be returned.
- All designs become the property of CNC Software, Inc.

All entries and completed entry forms must be received by May 31, 2011.

Send entries to CNC Software, Inc., Educational Division, 5717 Wollochet Drive NW, Gig Harbor, WA 98335. (Please e-mail iof@mastercam.com to let us know when to expect your entry).

While we welcome past winners to submit entries, past winners are not eligible to win the grand prize.

For more information on the 2011 Mastercam Innovator of the Future competition including the entry form and part specifications, please visit <http://www.mastercam.com/iof>.

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MSC Software and St. Petersburg State Marine Technical University Establish Shipbuilding Simulation Competency Center

28 March 2011

Under this agreement MSC Software and the St. Petersburg State Marine Technical University will build a Competence Center within the Institute of Information Technologies of SPbSMTU. The Competence Center ensures that future engineers for the Russian Shipbuilding industry will be experienced in modern simulation technology and able to find methods of resolution during complex engineering jobs in the computer aided design and simulation process. The engineers will gain these new skills using the advanced engineering simulation technology from MSC Software for finite element analysis and multi-body dynamics including [MSC Nastran](#), [Marc](#) and [Adams](#).

“Information technology and computer modeling is the most vital instrument in the creation of modern ships. Here, at SPbSMTU we have a functional IT model for the complete lifecycle management of marine machinery. Leading engineering analysis technologies from MSC Software will become one of the key elements in analyzing the model and further used for education of our students as well as for graduate scientific studies,” says Mr. Alexey Lipis, Director of the Institute of Information Technologies of SPbSMTU.

“The most contemporary development step in the creation of marine machinery can be characterized as a modernization process of the entire shipbuilding industry, allowing the design and construction of innovative marine products. Gaining practical experience with MSC Software’s leading engineering analysis products is essential in the education of current marine engineer professionals for the shipbuilding industry,” says Mr. Konstantin Borisenko, chancellor of SPbSMTU.

“Through this agreement we set a milestone for a new generation of engineers in the Shipbuilding industry of Russia. We are delighted to be part of this project which transforms engineers to new heights in using engineering simulation so they can bring innovative techniques and experiences to their future

employers,” said Dominic Gallelo, CEO and President, MSC Software. “They will be trained to work more efficiently with modern simulation software, and to accurately apply the latest methods of computer aided engineering in their industry.”

About St. Petersburg State Marine Technical University

St. Petersburg State Marine University is the only educational entity that trains marine engineers for the design, manufacturing as well as exploitation of marine vessels, military surface ships, submarines and technical equipment for oil, gas and other natural resources extraction. The University’s high educational level as well as its compliance with international educational standards is confirmed by experts from the International Institute of Marine Engineers in London. The University’s Diplomas obtained recognition in Europe and the United States. To learn more, please visit

<http://www.smtu.ru/engver/index.html>.

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MWH Soft Changes Name to Innovyze

27 March 2011

MWH Soft announced it has a new name, Innovyze. The new name and logo more accurately reflect the company’s rich history of creating technically advanced modeling and management solutions for the world’s water and wastewater communities.

In 2009 MWH Soft and Wallingford Software combined to offer world-class customer support and to pioneer software tools that meet the technological needs of water and wastewater utilities and engineering organizations worldwide.

As part of the introduction of the Innovyze name, the company has an updated website at <http://www.innovyze.com> and is hosting its first public event, the 2011 Asia Pacific Water and Sewer Systems Modelling Conference, beginning March 30 in Gold Coast, Australia. For additional information regarding the change, visit <http://www.innovyze.com/newname>.

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New Tribold Industry Report: Product Experience: Leveraging Enterprise Product Management to Enhance the Customer Experience

March 2011

Tribold has published a new communications industry report: ‘Product Experience: leveraging enterprise product management to enhance the customer experience’ – debating a central premise that in order to optimise the customer experience, there is a vital dependency on optimising the product experience.

This report, co-authored by Tribold’s CTO, Catherine Michel and Telesperience Research Director, Teresa Cottam, argues how by simplifying and explicitly managing products in a single enterprise product catalog, Communication Service Providers (CSPs) can deliver enormous benefits including lower costs, greater commercial and operational agility, and increased customer satisfaction.

This report explains how the product experience underpins a satisfying customer experience: products are what drive a customer to engage with a service provider

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diversity and attractiveness of offers and services are what generate additional revenue
quality and consistency of the use of those products is what keeps the customer loyal.

The report is available at: <http://www.tribold.com/news-and-events/report>

To learn more about Tribold's solution for Enterprise Product Management visit
<http://www.tribold.com/>

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Now Available: COMSOL Multiphysics Simulation Booklet

31 March 2011

A new guide to multiphysics simulation tools the COMSOL Product Booklet 2011 is now available free of charge at http://www.comsol.com/activity/us_list_mar11/1

Highlights

- Multiphysics simulation
- Solvers and performance
- Specifications
- Applications: CFD, Structural Mechanics, Chemical Engineering, Electromagnetics, and more...

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Sescoi Recognized Among the Top SMEs in France

31 March 2011

The French president, Nicolas Sarkozy, addressed an OSEO Excellence reception held on 16th March at the Grand Palais in Paris. SESCOI, as a member of the OSEO Excellence group was invited to attend. OSEO is a government supported organization dedicated to the promotion of high technology companies in France and the reception was a gathering of the top French SMEs nominated by OSEO as being at the forefront of innovation and with the largest potential for growth and job creation. .

SESCOI gained recognition from OSEO for the development of its [WorkNC Dental CAD/CAM implantology](#) software, a fully open and automatic solution for the machining of customized abutments, recently launched at IDS in Germany. WorkNC Dental CAD/CAM is available from SESCOI subsidiaries and a large, growing network of partners, giving dental laboratories the freedom to choose the most cost effective and technically suitable system for their applications.

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The Commonwealth Center for Advanced Manufacturing Breaks Ground in Prince George County, Virginia

1 April 2011

Virginia Governor Bob McDonnell and the presidents of the University of Virginia, Virginia Tech and

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Virginia State University today joined with executives from some of the world's biggest names in manufacturing to officially break ground for the Commonwealth Center for Advanced Manufacturing (CCAM), a unique collaborative research facility in Prince George County, Virginia, that promises to accelerate the transfer of laboratory innovations to manufacturing production lines where they can improve efficiencies, products and profits.

The groundbreaking puts in motion construction of a 50,000 square-foot, state-of-the-art facility. Under its roof, best-in-class manufacturers will collaborate with accomplished faculty and students from Virginia's top research and teaching institutions to perform advanced manufacturing research in two priority areas: surface engineering and manufacturing systems.

When complete next year, the facility will house computational and large-scale production labs, as well as open production space for heavy equipment and surface coating processes, including a thermal spraying machine, a directed vapor deposition machine, integrated data acquisition systems and a thermal conductivity measurements system.

"CCAM is a game changer for manufacturing operations in this country and around the world," said David Lohr, the newly appointed president and executive director of CCAM. "Its collaborative model joins academic research with manufacturing's drive for competitive advantage and it promises new, valuable innovations faster than ever before."

CCAM is the only collaboration of its kind in North America and it promises its member companies significant benefits. By pooling resources to pursue university research authorized by member companies, CCAM increases the value of the R&D dollar. R&D risks and costs are shared by members – away from live production floors – and research results are shared with all members, allowing them to capitalize on new, breakthrough developments that emerge from CCAM research.

In addition to breaking ground for the research facility, CCAM also announced today the founding companies that will anchor the CCAM facility and its initial research operations. They are:

Canon Virginia Inc. – Located in Newport News, Canon Virginia Inc. produces new products using advanced manufacturing methodologies while also serving as a factory service center for repair and refurbishment of Canon cameras, video recorders and office products. (<http://www.cvi.canon.com>)

Chromalloy – Based in Orangeburg, N.Y., Chromalloy provides parts, repairs, maintenance and overhauls of gas turbines used in aviation and in land-based applications. (<http://www.chromalloy.com>)

Newport News Shipbuilding – Newport News Shipbuilding is a division of Huntington Ingalls Industries. Huntington Ingalls Industries (HII) designs, builds and maintains nuclear and non-nuclear ships for the U.S. Navy and Coast Guard, and provides aftermarket services for military ships around the globe. For more than a century, HII has been building more ships, in more ship classes, than any other U.S. naval shipbuilder. Employing nearly 38,000 in Virginia, Mississippi, Louisiana and California, its primary business divisions are Newport News Shipbuilding and Ingalls Shipbuilding. (<http://www.huntingtoningalls.com>)

Rolls-Royce – Rolls-Royce is a world-leading provider of power systems and services for use on land, at sea and in the air, and has established a strong position in global markets – civil aerospace, defense aerospace, marine and energy. Headquartered in London, Rolls-Royce employs over 39,000 skilled people in more than 50 countries, including some 7,000 employees in the United States. (<http://www.rolls-royce.com>)

Sandvik Coromant – Sandvik Coromant is the world's leading producer of tools for turning, milling

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and drilling. The company is headquartered in Sandviken, Sweden.

(<http://www.sandvik.coromant.com/us>)

Siemens – Siemens is a worldwide leader in the fields of automation systems, industrial controls and industrial software. Its portfolio ranges from standard products for the manufacturing and process industries to solutions for whole industrial sectors that encompass the automation of entire automobile production facilities and chemical plants. As a leading software supplier, Siemens optimizes the entire value-added chain of manufacturers – from product design and development to production, sales and a wide range of maintenance services. (<http://www.siemens.com/industry>)

As Organizing Industry Members, these companies will play a significant leadership role in CCAM. Company officials will join representatives from the university organizing members (UVA, VT and VSU) on CCAM's board of directors to oversee the facility's development, its research priorities and its outreach to additional prospective member companies.

Recruitment efforts are well underway. Aerojet, a California-based provider of rocket propulsion systems, joined CCAM last month. Announcements of additional members are expected soon.

For Prince George County and the Petersburg and Richmond regions, CCAM and its manufacturing members represent a powerful economic development engine that promises to bring additional businesses, new jobs and a global reputation for excellence in advanced manufacturing research. Additionally, next month, Rolls-Royce will begin producing jet engine parts at a new plant just north of CCAM, a development that also promises further economic activity in the region as suppliers and other support businesses start.

Other regions in Virginia also will see benefits from CCAM. With financial assistance to build CCAM from Virginia's Tobacco Indemnification and Community Revitalization Commission, CCAM will invest in new workforce development programs in Southside Virginia that will re-tool Virginians to meet the demands of advanced manufacturers.

Representatives from CCAM's founding members share their perspectives below on the opportunities and benefits anticipated from their involvement in CCAM:

Takayoshi Hanagata, Chairman, Canon Virginia Inc.

"Canon is very excited to be an organizing industry member of CCAM. This partnership will allow Canon to further its reputation for promoting innovative, creative and advanced manufacturing techniques. The opportunity to leverage Virginia's finest universities in a collaborative environment with other global manufacturing leaders, right here in the Commonwealth of Virginia, is a unique opportunity."

Armand F. Lauzon, President and CEO, Chromalloy

"What's great about CCAM is the coming together of manufacturing leaders from around the world to approach shared manufacturing problems with different business and operational perspectives. Working together with university research teams, we anticipate the collaboration at CCAM will generate new ideas and solutions that advance our business."

Peter Diakun, Vice President and Chief Technology Officer, Newport News Shipbuilding

"We are very impressed with the success of similarly structured Research Centers located in other countries. These centers have a proven track record of transitioning member-driven, new technology to industry. We are also excited about the ability to draw on the expertise from other Research Centers and

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to focus research capabilities at Virginia Tech, the University of Virginia and Virginia State on coating technologies and manufacturing processes that are specific to Newport News Shipbuilding."

William T. Powers, Executive Vice President and CFO, Rolls-Royce North America

"Rolls-Royce has recognized business benefits through our involvement in similar collaborations around the world, and we're eagerly anticipating new, production-ready innovations from CCAM. Working together with like-minded companies and Virginia's flagship research institutions will yield both process and product improvements, as well as generate new economic momentum for advanced manufacturing research in this region and across the nation."

John Israelsson, President, Sandvik Coromant USA

"This type of balance between academia, competence development and 'real world' issues will add significantly to our portfolio of solutions. Projects developed at CCAM will lead to sensational reductions in processing time for our customers, increase productivity, lower the cost of production and increase output to help maintain their competitiveness. Projects that roll through the center should be easily applicable to the shop floor, thus generating user value."

Andreas Saar, Vice President, Component Manufacturing Solutions, Siemens PLM Software

"CCAM will offer a special environment that brings together students, educators and industry leaders to explore new concepts and test ideas, which is difficult to do on a working production floor. At CCAM, there is room for innovation to drive positive changes and create capabilities that offer valuable benefits for all of its industry members. We are delighted to be part of CCAM."

About the Commonwealth Center for Advanced Manufacturing

CCAM is a research collaboration between the University of Virginia, Virginia Tech, Virginia State University and manufacturing companies worldwide. Manufacturers join CCAM as members and guide research with university faculty in two focus areas: surface engineering and manufacturing systems. CCAM is building a 50,000 square-foot, state-of-the-art research facility near Petersburg, Virginia, adjacent to Rolls-Royce's new jet engine components plant. The facility is expected to open in 2012. For more information, visit <http://www.ccam-va.com>.

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Events News

CNC Software, Inc. Showcases Mastercam® X5 at EASTEC 2011

March 2011

EASTEC 2011 will feature the latest in the line of Mastercam machining software. Stop by **booth # 5249** at the Eastern States Exposition, West Springfield, MA, May 17-19, for a look at Mastercam X5, which introduces significant new capabilities, including new dynamic milling techniques, multi-axis machining, Smart Hybrid Finishing, and much more.

Smart Hybrid Finishing

Hybrid finishing intelligently blends two efficient cutting techniques in a single toolpath. This new toolpath evaluates the model shape and smoothly switches between Constant Z cutting and Constant Scallop machining. The result is a dramatically finer finish with less work.

Fast, Aggressive, Intelligent Roughing

Mastercam's new 3D surface high speed OptiRough toolpath is a new technique designed to remove large amounts of material quickly using its successful dynamic milling motion. Large, aggressive cuts are followed by fast, smaller up-cuts, safely delivering a fully roughed part faster than ever.

Streamlined Multiaxis Machining

Mastercam's multiaxis suite has new machining techniques and a new, easy, workflow-oriented interface. Mastercam lets you choose the basic type of work you're doing using clear illustrations, and then gives you a clear, step-by-step process for defining how you'll cut the part. Mastercam's multiaxis machining also includes a new highly specialized interface for smooth, gouge-free engine head porting.

New Dynamic Milling Techniques

Dynamic milling constantly adjusts the toolpath to ensure the most efficient cut possible and allows use of the entire tool flute length, often eliminating the need for multiple depth cuts. New dynamic milling techniques include Dynamic Rest Mill and Dynamic Contour. Dynamic Rest Mill helps ensure maximum tool efficiency during cleanup routines. Dynamic Contour uses an intelligent, efficient high speed contouring strategy to remove material along walls. It supports multi-passes and can optionally include finishing passes.

For more information on Mastercam X5, and to view videos on the new software features, please visit <http://www.mastercam.com>.

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Delcam to Highlight Integrated CAM for SolidWorks at EASTEC

28 March 2011

Delcam will show its complete range of CAM systems on **Booth # 5322** at EASTEC, to be held from 17th to 19th May in Springfield, Massachusetts. The company will feature its integrated CAM system for SolidWorks, Delcam for SolidWorks, alongside its more established systems like PowerMILL for high-speed and five-axis machining, FeatureCAM for feature-based programming, and PartMaker for the programming of turn-mill machines and Swiss-type lathes.

Despite being the newest of Delcam's CAM systems, Delcam for SolidWorks has already attracted a strong base of enthusiastic users. One example is Mike Stringer, Machine Shop Manager at Custom Product Development in Livermore, California. His comments on the program can be seen on Delcam.TV at <http://www.delcam.tv/cpd>.

The addition of Delcam for SolidWorks to Delcam's broad product range extends the company's ability to offer a CAM system to machine virtually any product, in any material on any type of equipment, from simple lathes and mills through to the most complex five-axis machines and mill-turn equipment. This comprehensive coverage is one of the main reasons why Delcam has been ranked by CIMdata as the world's leading specialist supplier of CAM software for the past ten years.

New versions of all of the programs will be demonstrated at EASTEC 2011, including the 2011 version of PowerMILL. This makes the programming of safe toolpaths easier than ever thanks to new stock-model-engagement options that protect both the cutting tool and the machine from excessive loading. Other enhancements include new editing capabilities to simplify the machining of duplicate items; more versatile control of feed-rates for leads and links; and extra functionality for sketching, plus the

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completion of the move to the new clearer forms for the complete range of strategies.

FeatureCAM 2011 incorporates support for 64-bit computers, improved data exchange from a wider range of design software, the ability to use stock models and new strategies across the complete program, from turning to five-axis machining. The new release also has a more modern interface to make programming easier than ever.

Major highlights of PartMaker 2011 include more powerful milling functionality, a more flexible tooling library, improved programming and simulation of bar-fed mills, more detailed mid-process documentation and a host of additional productivity enhancements. In particular, multi-axis milling functionality that has taken Delcam many man-years to develop continues to be added to PartMaker at a rapid pace.

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Delcam to Preview ArtCAM 2011 at Sign & Digital UK

30 March 2011

Delcam will preview the 2011 release of its ArtCAM software for signmaking and woodworking at the Sign & Digital UK exhibition to be held at the NEC, Birmingham, from 12th to 14th April. The new release, which will be launched at the end of April, will be the first 64-bit version of the software.

Using 64-bit software can increase the speed at which signmakers work as well as helping with larger, memory-intensive files. One of the beta-testers, Grant Bailey from Artfacturing commented, "Calculations appear much faster, for example, it loaded a 250mb file in three seconds."

To suit individual methods of working, ArtCAM gives users the freedom to customise and save their preferred interface layout. They also have the option to create their design in ArtCAM or import pre-created 2D or 3D artwork directly. Any 2D artwork can then be cut out for basic 2D signage or transformed into 3D shapes with ArtCAM's modelling tools.

To help the design process, a sign can be made from several vector or relief layers, which can be shown or hidden, making them easy to manipulate. Layer information from imported files, such as PDF, DXF or AI files can also be preserved.

If required, designs on a particular relief layer can be split into layers and saved to the relief library. This adds to a library of over 400 free pieces of relief clipart that are supplied with ArtCAM. These can be opened, resized and repositioned as required prior to committing the reliefs to the design. These can then be embossed or sculpted from an array of design tools. Hand-carving effects or unique textures can also be added in a matter of minutes using ArtCAM's texture toolpath strategy. New Bitmap to Vector outlining and Contour Blend tools make it even easier to accurately outline and create complex shapes.

Basic text can also be generated with ArtCAM's Text Tool, or if the designer prefers they can make their own unique fonts, which can then be stored and used at a later date for other signs.

Additionally, ArtCAM comes with an 'Inlay Wizard', which makes precise male and female parts with a perfectly flat surface for any inlaid sign. This will also ensure that all unsightly shadows are avoided when creating illuminated signs.

To help visualise the design, it can be rendered in numerous materials, including different types of wood such as mahogany or maple, complete with wood grain direction. If the sign requires outside approval, the design can be emailed as a rotatable 3D PDF.

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Once authorised, the sign maker can then select the tools they want to use for machining from a database of over 250 routers and machine tools. To prevent material wastage, the software not only nests the pieces to be cut according to their true shape, but also calculates the previously defined machining strategies, cutting tools and machining parameters from imported DXF and PDF files. These can then be applied to all layers with the same name with a single click thanks to ArtCAM's advanced 'toolpath templates'.

Finally, a simulation can be run of the pieces being machined using the chosen tools and the given material block dimensions. This has proven extremely beneficial as customers can change the tools or machining strategies prior to machining, saving time and money.

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Delcam to Show Orthotics CAD/CAM Software in Australia

31 March 2011

Delcam reseller Complex will show the latest versions of the OrthoModel and OrthoMill software for, respectively, the design and manufacture of custom orthotic insoles at the Australian Podiatry Conference to be held in Melbourne from 26th to 29th April. The main focus in both new releases has been on increasing the productivity that is possible with the systems, especially for companies making soft insoles from EVA. Other enhancements in OrthoModel include improved methods for the development of foot-positive designs, while the new OrthoMill program makes it easier for users to import custom insoles from other design packages. To find out more, please visit www.delcam-healthcare.com.

The most important enhancement to OrthoModel is the ability to create a library of 3D met pads and met dome models that can be wrapped onto the foot orthotic to complete the design. This will make the design of soft orthotics much faster since it is quicker to add these elements from a library than to create a new shape for every patient. Delcam will supply an initial library with the software, and the user can then edit and add to this range with their own designs.

In a related development, the editing of curves that define areas for cut-outs has been improved to allow quicker and easier modification.

The other significant improvement has been to extend the ability to manufacture foot-positive patterns to cover all types of functional and accommodative orthotic designs. The patterns can be used to produce insoles from materials that are difficult to machine, such as carbon fibre-reinforced plastics.

The ability of OrthoMill to handle high volumes of orders has been increased by allowing the software to program multiple blocks of material for cutting on a larger machine in a single project. This will again be important for manufacturers using EVA or polyurethane that want to cut orthotics from materials of differing densities in one operation. Previously, the toolpaths for each block would need to be calculated separately, which would take much longer.

Another enhancement in the new release is the possibility for users to model their own blocks of material, including the placement of drill holes, the creation of boundaries for part-used blocks and the specification of areas of different densities. Orthotics can now be oriented to their lowest height profile. This allows tall items to be fitted into thinner blocks and so improves material utilisation. Finally, the orthotic can be machined with a support strip around its full circumference, to maintain its position during machining prior to the final cutting out operation. This approach is more suitable than using tabs

when cutting more flexible materials

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FARO and Delcam Combine for Inspection Open House

1 April 2011

Delcam and FARO will jointly host an inspection open house featuring the latest developments in portable metrology hardware and software. The event will be held on 8th April in Delcam's California office in Pasadena.

The open house will be the first opportunity for US manufacturers to see the 2011 R2 version of Delcam's PowerINSPECT inspection software on the latest FARO arms. The new release is the first version developed for use on 64-bit computers. Other enhancements include improved visualisation of the results, easier creation of automated inspection routines, full integration of DRO (Digital Read-Out) functionality and support for the latest Renishaw probes.

PowerINSPECT is firmly established as the world's leading hardware-independent inspection software. It combines the ability to work with all types of inspection device with a comprehensive range of inspection routines for making simple measurements, for inspecting geometric features and for checking complex surfaces. The resulting reports present detailed information in easy-to-read formats that can be understood by all engineers, not just inspection specialists.

The introduction of support for 64-bit computers will enable increased memory use on that hardware. This will be of benefit for more memory-intensive applications where larger CAD files need to be manipulated, especially for very complex parts and multi-component assemblies.

The new PartAligner module will also be demonstrated. This uses the alignment functionality from PowerINSPECT on a portable inspection device positioned on or beside a machine tool to find exactly where a part is located. The measured position is then compared with the datum used in the CAM system to program the component.

The results can be used to update a project in the CAM system by adjusting the datum position and orientation. Alternatively the data can be applied directly to change the offsets in the machine-tool control so that they reflect the measured position of the component rather than the nominal value in the programming software.

Using PartAligner with a FARO Arm or Gage overcomes any concerns that might arise from using a machine tool to check its own performance with on-machine verification. The main benefit is in reducing the time and variability associated with fine manual adjustment of the part set-up. PartAligner allows independent inspection to be carried out and positional problems to be corrected much more quickly and easily, especially with larger and heavier parts.

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Geometric to Showcase Reduction in Programming Time with CAMWorks® 2011 at Houstex 2011

31 March 2011

[Geometric](#) announced that it will showcase its fully automatic CNC programming system [CAMWorks® 2011](#), at **Booth #1212**, at Houstex 2011, from 18 to 20 April, 2011 in Houston, TX.

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CAMWorks 2011 automates the CNC programming process, reduces programming time by as much as 90 percent, and allows design and manufacturing engineers to use a single common database for both product design and final machining.

Fast and intelligent roughing

CAMWorks2011 introduces VoluMill®, the ultra-high performance toolpath generator for 2.5 axis and 3 axis high speed rough milling. VoluMill can reduce cycle times by more than 80 percent, thereby increasing production by up to 500 percent. In addition, VoluMill® allows you to establish and maintain ideal cutting conditions. As a result, cutting tool life is dramatically extended and tooling costs can be reduced by over 80 percent. VoluMill also helps avoid costly collisions and greatly extends the life of machine tools.

Strike oil at Houstex

At the heart of CAMWorks 2011 is Automatic Feature Recognition (AFR) software, making it the ideal CAM system for programming oil tool components, as well as other industrial and commercial families of parts. Using AFR, CAMWorks identifies the areas to be machined, and then uses its proprietary Technology Database (TechDB™) to generate toolpaths automatically. The result is fully automatic programming of families of parts, automatic programming of similar features on new parts, and the ability to incorporate manufacturing information directly into the solid model.

Something good gets even better

CAMWorks®2011 has been upgraded to find more features, while reducing computation times by more than 50 percent. As part models become increasingly complex, recognizing more features in less time represents huge time savings. The Technology Database (TechDB™), that is used to store and apply knowledge based machining information, has been enhanced to simplify the process of creating best machining practices. These features make CAMWorks' knowledge-based machining capabilities easier to use, and improves the consistency and quality of the programmed parts. In addition, CAMWorks associativity accelerates new product development by automatically updating manufacturing models

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GibbsCAM MTM to be Demonstrated at PMTS 2011 (Precision Machining Technology Show)

30 March 2011

Gibbs and Associates announced that it will demonstrate its GibbsCAM MTM (multi-task machine) CNC programming software at the 2011 Precision Machining Technology Show (PMTS), to be held at the Greater Columbus Convention Center in Columbus, Ohio, April 19-21, 2011. The entire suite of the forthcoming GibbsCAM 2011 software release will also be available for previewing in the GibbsCAM **booth #807**.

The GibbsCAM NC programming system for MTM allows manufacturers to program the most advanced and sophisticated multi-tasking machines with multiple turrets and spindles. It fully supports multiple flows and all of the functions of both standard and Swiss style multi-task machines, including sub-spindles, live tooling, multiple turrets doing simultaneous machining, Y-axis on all turrets, thread whirling, B-axis turning, B-axis milling with Y offset, full 4- and 5-axis simultaneous machining, and synchronization to optimize turret utilization and cycle times. Furthermore, Gibbs creates unique post processors for each machine and control combination, based upon MTM machine parameters and customer preferences, ensuring that each post processor is optimized for each customer's requirements.

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Gibbs has delivered nearly 1,000 unique post processors for both standard and Swiss style MTM machines, including the most complex machines from Citizen, Doosan, Mazak, Mori Seiki, Star CNC and Tornos.

“Our continued collaboration with machine-tool builders and other partners, in satisfying customer requirements, has kept us at the forefront of MTM and Swiss machine CNC programming software,” says Bill Gibbs, founder and president of Gibbs and Associates. “Staying current with the multiple variations, multi-axis combinations and inherent complexity of these machines is a primary requirement for us. Knowing what tool and control builders are doing enables us to deliver software tools for programming, synchronization, toolpath verification and machine simulation that make customers as productive and profitable as their machines and processes will allow.”

Standard features of GibbsCAM are a user interface with language and icons familiar to programmers and machinists, the capability to program the most complex machining processes, and the flexibility to allow user-preferred approaches to jobs, with options that are logical to programmers. Additional features of great importance to MTM programmers are integration of turning, milling and utility operations; synchronization of turrets and spindles; and a summary of operations.

GibbsCAM integrates turning, milling and utility operations, so the user can move back and forth from turning to milling to utility operations, at any time, with simple mouse clicks. Integration enables programming operations in proper sequence, without leaving the software, so that trouble-shooting a program is usually nothing more than optimization.

For visualization and toolpath verification, GibbsCAM includes Cut Part Rendering, which displays material removal whenever the programmer generates a toolpath, which can be verified in process, allowing the programmer to correct errors incrementally. The visual state of a part after each operation becomes stock for the next, as if the part were being machined. A part transferred to the sub-spindle is displayed with all prior, main-spindle operations completed, so the material removal display is accurate at every stage. In addition, GibbsCAM’s machine simulation option allows users to simulate both the part being machined and all motion of the machine’s moving components.

For machine synchronization and optimization, GibbsCAM MTM’s Sync Manager displays operations being machined on each turret and spindle, thereby allowing users to interactively optimize machine time. Sync Manager is especially useful for production runs where program optimization multiplies savings across thousands of parts. It allows automatic synchronization to prevent conflicts, and permits interactive wait-code insertion, with automatic checks and alerts for conflicts. GibbsCAM also accommodates use of machining patterns or machine modes, by allowing selection of the required utility, also allowing the programmer to insert a code within a flow, and automatically synchronizing the program with wait codes at the corresponding locations in the other flows.

GibbsCAM’s Operations Summary displays tool parameters and machining time for each operation, and a total cycle time, useful in locating lengthy operations for further optimization. Once programs are optimized, data from the Operations Summary is often used to estimate jobs, gauge machine and operator productivity, and even develop time-based incentives for machine operators.

All GibbsCAM software is available in 32-bit and 64-bit versions. The 64-bit version enables users to work with much larger files and to achieve faster and more accurate results with certain graphic, toolpath generation and post processing functions. It also provides higher efficiency and accuracy in evaluating machining operations with toolpath rendering and machine simulation, and provides full compatibility with 64-bit CAD systems, such as SolidWorks, Solid Edge and Autodesk Inventor.

GibbsCAM is compatible with Windows 7.

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Rand Worldwide Participates in the COE 2011 Annual Conference Supporting Users of Dassault Systèmes Software Solutions

31 March 2011

Rand Worldwide announced that it will be presenting and exhibiting at the COE Annual PLM Conference and TechniFair being held at the Rosen Shingle Creek in Orlando, FL, April 3-6, 2011.

.Rand Worldwide will exhibit in **Booth #301** and will be promoting their training programs for CATIA V5, DMU V5, and ENOVIA SmarTeam. Rand Worldwide offers a full suite of instructor-led training classes along with customized training solutions, online training classes, and self-paced learning through its online portal, ProductivityNOW. Demonstrations of ProductivityNOW are available upon request.

In addition to exhibiting its training services at COE, one of Rand Worldwide's Technical Training Engineers, Ray Olson, will be delivering a hands-on workshop entitled: Introduction to CATIA V5 Surface Machining. This session will be taught on Wednesday, April 6th at 1:30pm.

The CATIA V5 Surface Machining session will provide a basic introduction to CATIA V5 3 axis Surface Machining capabilities. This class is ideal for anyone interested in machining three-dimensional designs with CATIA V5. All class attendees will receive a three page document detailing the step-by-step procedure on how to machine a three-dimensional part with CATIA V5 software.

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Sescoi's Latest CAD/CAM and ERP Productivity Tools at Industrie 2011

30 March 2011

Industrie Lyon 2011 is France's premier exhibition for advanced technology with over 800 exhibitors. SESCOI will be presenting the full range of its automated productivity software in **Hall 6, on Stand D68**. This will include the latest version of its flagship CAD/CAM system WorkNC V21; the launch of Auto WorkNC CAM software for families of parts; the French launch of the new WorkNC Dental Implantology and Dental Automation modules; preview of version 4 of MyWorkPLAN job management; and the latest enhancements to its WorkXPlore 3D high speed viewer.

WorkNC V21 is now 64bit, with parallel processing capabilities which reduces calculation and programming times to as little as a tenth of what was previously possible. The simultaneous calculation of several threads is extremely effective on complex parts, enabling users to create highly optimized machining operations while still reducing program preparation times. The new high speed Global Finishing toolpaths combine Z-Level Finishing and Optimized Z-Level Finishing into a single climb milling operation. This produces improved cutting conditions and surface quality, eliminates duplicate and wasted movements, and results in faster machining operations and simplified programming. Further improvements include the automated machining of undercut conditions, support for conical tools and the rationalisation of the software's 5-axis toolpaths, enhancing WorkNC's position as the premier automated CAM package.

Visitors to the SESCOI booth will be able to examine numerous showcase parts machined with WorkNC, including the much travelled 'Robot Head', well known to WorkNC's Facebook fans.

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For similar parts, Sescoi has developed a new module, Auto WorkNC, which enables families of parts such as electrodes to be programmed in three easy steps. The new software takes a master program and applies it to a new 3D model. The programmer simply has to prepare the CAD data, select the machine and material and apply the toolpaths, producing a new finished, reliable, and collision free toolpath in just a few minutes. Demonstrations of the software at the show will illustrate the speed of programming and the reliability of the cutterpaths on the most complex shapes, including those which require 5-axis machining.

Sescoi has been collaborating with a wide range of dental partners in the development of its open WorkNC Dental software. Industrie will be the first showing in France of the company's new WorkNC Dental Implantology and Automation modules, which further extend the capabilities of the system for dental professionals. The Implantology module accurately detects the 3D orientation of each implant, ensuring that the holes in the crown or bridge align perfectly. The software also automatically interprets the geometry of the prosthesis and margin line, producing high quality reconstructions which are easy to fit and which will enhance patient satisfaction levels, in a full range of dental materials including titanium, chrome-cobalt, zirconia, lithium disilicate, E-max and PMMA. A demonstration and live cutting will show how the complete system operates, starting with a Dental Wings scanner and finishing with machining on a Witech Mic5 5-axis machine tool.

The WorkNC Dental Automation module turns prosthesis manufacture into a continuous unmanned process by allowing technicians to schedule and queue a series of jobs, allocating them automatically to the next available pallet on the machine tool through a direct connection with the machine's control unit.

For users of wire EDM and die sinking machines, visitors will be able to see both the WorkNC Electrode and WorkNC Wire EDM systems. The electrode software makes it easy to extract 3D geometry from a model, allocate a suitable holder, machine the electrode and ensure its accurate positioning for the die sinking operation. The wire EDM system includes features for tagging, slug removal and control of 4-axis wire moves as well as checks for maximum wire angle errors to make sure the part is manufacturable.

Version 4 of MyWorkPLAN, Sescoi's job management software for custom manufacturers is previewed at Industrie 2011. The new version includes new capabilities for customer relationship management (CRM), to handle pre-sale processes, customer follow-up and marketing campaigns. By managing sales opportunities, the CRM system helps companies to manage prospects and forecast sales values and probabilities more effectively. Analysis can show the current situation for each sales person and each industry sector. The system also allows managers and sales people to see the past and future activities for each potential customer and view the collated documents related to each sales process. Once the enquiry becomes an order, documentation is automatically passed to MyWorkPLAN's manufacturing module, providing engineers with a complete history of the project, enabling them to manage production and on time delivery, greatly improving the overall service provided to each customer.

The new timeline graphical feature in Version 4 of MyWorkPLAN allows the user to quickly find any document linked to a customer or project, and with a simple drag&drop the user can open the Easyview tree displaying the object linked to that document. Version 4 also includes new analyses graphs with a modern look & feel, plus new functions for companies who manufacture both the tool and the related serial parts (injection, stamping, etc...).

Version 2 of WorkXplore 3D, Sescoi's collaborative high speed view mark-up and analysis software, will be on show at the exhibition. The software encourages data sharing and feedback throughout a supply chain, in a low cost system which encourages concurrent working. All Nippon Airways selected

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WorkXplore 3D to share design data for maintaining its fleet of 787 Dreamliners in Japan, picking it for its speed and lightweight format which suited it ideally for its PC network. New at the show will be WorkXplore 3D's WorkZone Manager Light functionality, which enables users to obtain information about toolpaths created in WorkNC and geometric tolerancing and dimensioning information from CATIA V5.

Visitors to Industrie can learn how to transform their productivity in one visit to SESCOI's booth, and if that is not enough of a reason to call in, the company is offering free entry into a competition to win an experience gift box.

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solidThinking Supports Industrial Designers' Continuing Education Through Program-wide Sponsorship of 2011 IDSA Regional Conferences

28 March 2011

solidThinking, Inc. (<http://www.solidthinking.com>) will showcase its recently launched [solidThinking 8.5](#) and [solidThinking 8.5 Inspired™](#) software at the [Industrial Designers Society of America's \(IDSA\) five regional conferences](#) April 1 – May 3, 2011. As a comprehensive program sponsor, solidThinking aims to support the continuing education of industrial designers and contribute to the conferences' ongoing collaborative discussions on technology and the future of industrial design.

Product specialists from the solidThinking team will be on-hand to help attendees experience the software's [more than 900 fixes, updates and enhancements](#), learn more about how solidThinking can enhance design workflow, and collaborate with attendees on the ways innovative 3D software is redefining the ID world. For a preview prior to the conferences, attendees can learn more about solidThinking's [3D modeling, rendering and presentation, computational inspiration and data exchange features](#) by visiting the [solidThinking website](#).

“Feedback from the industrial design community truly helped shape the development of both solidThinking 8.5 and solidThinking 8.5 Inspired,” said Alex Mazzardo, solidThinking's vice president of product strategy and marketing. “IDSA's 2011 regional conferences will give us the opportunity to gather firsthand experiences and reactions to these product enhancements, which we believe will enrich and accelerate design inspiration for industrial designers and their collaborative partners.”

The five IDSA district conferences held regionally include:

[Midwest Conference](#) – *CONTRAST*

St. Louis, April 1-3

[Northeast Conference](#) – *Design4 2011*

Providence, RI, April 8-9

[Mideast Conference](#) – *DESIGN EXPERIENCE*

Cincinnati, OH, April 8-10

[Southern Conference](#) – *Business of Design*

Austin, TX, April 15-17

[Western Conference](#) – *SOCIAL IMPACT!*

San Jose, CA, May 6-7

solidThinking's NURBS-based design software offers conceptual modeling, high-quality visualization

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tools and fast real-time photorealistic rendering for design presentation. Its best-in-class ConstructionTree™ technology allows designers to experiment with designs without having to start from scratch when changing their minds. solidThinking is available on Mac and Windows operating systems and is compatible with leading CAD/CAID/CAE software, encouraging enhanced collaboration and productivity between industrial designers and engineers during the product development cycle.

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SURFCAM V5.2 to Showcase at AERODEF 2011

30 March 2011

Surfware, Inc. will feature its latest developments in the upcoming release of SURFCAM V5.2 at AERODEF 2011, an event designed to meet the manufacturing challenges facing aerospace and defense manufacturers.

Surfware invites you to stop by **booth 1558** at the Anaheim Convention Center in Anaheim, CA April 5 thru 7. Surfware staff members will be on-hand to offer demonstrations of the many new features and benefits of SURFCAM V5.2 and show visitors how they can achieve the highest material removal rates in milling aerospace alloys with TRUEMill technology.

“AERODEF is a great new venue to showcase to aerospace manufacturers the new features and functionality available in the new SURFCAM V5.2 release, as well as what can be accomplished with TRUEMill technology in the milling of aerospace alloys like Titanium, Inconel and Hard Metals,” says Peter Marton of Surfware. “TRUEMill toolpaths have proven to increase material removal rates in these difficult to machine materials by up to 5 times, increase tool life by up to 10 times while cutting at a depth of 2 times the cutter diameter, as well as decrease cycle times and reduce stress on CNC machines.”

In addition to TRUEMill demonstrations, the new features and functionality in the upcoming SURFCAM V5.2 release will be on display. Some of these features include new HSM Z-Roughing strategies, additional STL geometry capabilities for rough machining and stock calculations, adaptive slicing, a new SPost interface, enhanced Mill/Turn mode, optimized toolpath verification & machine simulation, updated CAD translators, just to name a few.

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Tech Soft 3D Announces Second Annual Customer Meeting at COFES 2011

28 March 2011

Tech Soft 3D announced its second annual Customer Meeting will again be held at COFES, The Congress on the Future of Engineering Software, on April 14 in Scottsdale, Arizona.

The meeting will feature roadmaps, highlights and demonstrations of [HOOPS 3D Framework™](#) and [HOOPS 3D Exchange™](#), as well as a discussion of the industry variables that guide these time-tested and innovative components. Tech Soft will also announce a much-anticipated 3D PDF-based technology. For more itinerary details, visit the [Annual Tech Soft 3D Customer Meeting](#) web page.

Those interested in attending COFES can contact Ron Fritz at ron@techsoft3d.com to arrange an invitation. The event is slotted from 1-3 p.m. on Thursday, April 14 at the Scottsdale Plaza Resort, Las Palmas Room "A."

About COFES

COFES is a conference that focuses on intense sessions of discussion, argument and debate on issues that will affect businesses that invest in and depend upon engineering technologies. The 12th annual COFES runs Thursday, April 14 through Sunday, April 17. See the [COFES](#) Web site for additional information on the agenda, keynote speakers and registration.

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Financial News

CENIT Publishes 2010 Annual Report

31 March 2011

The positive annual result of CENIT is the product of increased customer willingness to make IT investments, particularly during the last months of the year. Overall sales and EBITDA results were both up on-year. Based on the balance-sheet figures, CENIT's Managing and Supervisory Boards will propose to the General Shareholders' Meeting on 26 May that a dividend of 0.15 EUR per share be distributed.

During the 2010 business year, CENIT Group achieved sales revenue of 93.2 m EUR (2009: 86.5 m EUR/+8%). Sales of non-proprietary software increased significantly by approx. 30% to 31.9 m EUR (2009: 24.6) on the strength of the Value Added Reseller business with our partner Dassault Systèmes. Sales of CENIT's proprietary software were up slightly at 9.9 m EUR (2009: 9.7 m EUR/+2%). Turnover from services and consulting amounted to 50.6 m EUR (2009: 51.3 m EUR/-1%). Other sales totaled 0.7 m EUR (2009: 0.9 m EUR).

Gross profits totaled 61.2 m EUR (2009: 59.4 m EUR/+3%). CENIT achieved EBITDA of 5.74 m EUR (2009: 5.29 m EUR/+8%) and EBIT of 3.97 m EUR (2009: 3.89 m EUR/+2%). Earnings per share were 0.36 EUR (2009: 0.33 EUR/+9%).

Participations/Subsidiaries

CENIT (SCHWEIZ) AG, Frauenfeld/Switzerland

During the past business year, CENIT (Switzerland) achieved sales revenues of 3.8 m EUR (2009: 3.3 m EUR), accounting for EBIT of 0.45 m EUR (2009: 0.76 m EUR). In Switzerland, our focus lies on PLM solutions by Dassault Systèmes and EIM solutions by IBM. 5 staff members work with clients primarily from the manufacturing industry and the financial services sector.

CENIT NORTH AMERICA Inc., Auburn Hills/USA

CENIT North America Inc. attained sales of 6.7 m EUR (2009: 6.2 m EUR) and EBIT of 0.23 m EUR (2009: -0.2 m EUR). In the US, CENIT focuses on marketing products in the field of PLM. These efforts primarily address customers from the aerospace and manufacturing industries. 25 staff members are active in the service and sales segments.

CENIT SRL, Iasi/Romania

CENIT SRL reported total sales of 0.5 m EUR (2009: 0.5 m EUR), accounting for EBIT of 0.03 m EUR (2009: 0.1 m EUR). 17 staff members are active in service provision and software development. Since the second half of 2010, CENIT is also accredited as Value Added Reseller (VAR) for Dassault

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Systèmes in Romania and distributes PLM solutions locally.

CENIT France SARL, Toulouse/France

CENIT France SARL posted sales of 0.67 m EUR (2009: 0.47 m EUR) and EBIT of 0.07 m EUR (2009: 0.06 m EUR). The 6 staff members primarily serve our client EADS Airbus in Toulouse in the fields of project consulting and tendering.

Incoming Orders

During the previous business year 2010, Group-wide incoming orders totaled 103.4 m EUR (2009: 84.0 m EUR). On 31 December 2010, orders in hand amounted to 38.3 m EUR (2009: 27.7 m EUR).

Particularly in the automotive and manufacturing industries, confidence in the global economy is on the rise. As a result, a number of promising contracts were won the 4th Quarter 2010 whose effects will extend into 2011.

Asset and Financial Status

There are no liabilities in relation to banks and lending institutions – neither short-term not long-term. On the balance-sheet date, equity capital totaled 29.04 m EUR (2009: 28.08 m EUR). The equity ratio is 58%. (2009: 64%). On the balance-sheet date, bank deposits and liquid assets totaled 13.3 m EUR (2009: 18.6 m EUR). At 2.0 m EUR (2009: 9.3 m EUR), the operative cash flow is down from the previous year despite a slight increase in the consolidated result before taxes (EBT). As a result, the net working capital and thereby our forward commitments have grown. The on-year growth of investments is primarily a consequence of the acquisition of conunit GmbH).

Employees

On 31 December 2010, the total number of staff Group-wide was 634 (2009: 647). Personnel costs during the reporting period totaled 40.74 m EUR (2009: 40.63 m EUR). In 2010, a major focus of CENIT's human resources work was on the introduction of a new competency model. This model and the annual staff discussions support our employees in their personal and professional development.

Outlook

The solid foundation created over the past years kept CENIT stable throughout the crisis years. The enterprise showed that it is able to achieve solid results even in troubled times. Although the economy is now on the road to recovery, CENIT will continue to adhere to its sustainability-oriented business strategy. However, we will also invest in inorganic growth whenever the situation permits.

CENIT's aim is to grow profitably in all segments. Given the ongoing economic recovery, the preconditions for achieving this objective are good. Following a solid 2010 business year, CENIT expects renewed growth in 2011. From the current vantage point, the enterprise assumes that sales and results growth of approx. 10% (adjusted for special factors) can be achieved for both the consolidated and the individual financial statements. For the subsequent 2012 business year, we expect growth rates in the same order of magnitude. As a qualification, we must however note that these growth forecasts are highly contingent on the further development of the economy in Germany and in our target markets worldwide, as well as on the willingness of our customers to continue investing.

With the acquisition of conunit GmbH in the summer of 2010, CENIT was able to add important new elements to its portfolio. In future, we will also be able offer our clients services in the future-oriented field of business intelligence (BI). Enterprises and customers have an urgent need to address this topic. Indeed, major analysts such as Gartner, PAC, Forrester and IDC list the issue as one of the most

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important IT themes of the coming years. For this reason, CENIT expects to be able to further expand this segment in the coming years.

We intend to leverage the following factors toward increased sales and results targets: The enterprise will continue its activities both in Europe and the US. Additionally, we will sound out new opportunities in the Pacific and East Asia regions. Aside from acquiring new customers, a prime focus will lie on growth in the relevant market segments. We will sustainably continue our collaboration with our partners Dassault Systèmes, IBM and SAP so as to position ourselves as a long-term strategic partner of these enterprises.

The complete 2010 Business Report is available in German and English at CENIT's homepage:

<http://www.cenit.de/annual%20report>

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EDA Consortium Reports Revenue Increase for Q4 2010

28 March 2011

The EDA Consortium (EDAC) Market Statistics Service (MSS) announced that the Electronic Design Automation (EDA) industry revenue increased 19.4 percent for Q4 2010 to \$1507.7 million, compared to \$1262.7 million in Q4 2009. Sequential EDA revenue for Q4 2010 increased 15.4 percent compared to Q3 2010, while the four-quarters moving average, which compares the most recent four quarters to the prior four quarters, increased by 11.3 percent.

“Fourth quarter 2010 results represent a significant increase in all product categories, both sequentially and compared to Q4 2009,” said Wally Rhines, EDAC chair and chairman and CEO of Mentor Graphics. “Geographically, all regions realized increased revenue in Q4 2010 compared to Q4 2009, with the Americas, Japan, and Asia/Pacific regions showing double digit increases.”

Companies that were tracked employed 26,767 professionals in Q4 2010, an increase of 1.1 percent compared to the 26,474 people employed in Q3 2010, and up 3 percent compared to Q4 2009.

The complete MSS report, containing detailed revenue information broken out by both categories and geographic regions, is available via subscription from the EDA Consortium.

Revenue by Product Category

The largest category, Computer Aided Engineering (CAE), generated revenue of 576.5 million in Q4 2010. This represents a 19.5 percent increase over Q4 2009. The four-quarters moving average for CAE increased 10.9 percent.

IC Physical Design & Verification revenue increased to \$301.8 million in Q4 2010, a 2.8 percent increase compared to Q4 2009. The four-quarters moving average increased 1.0 percent.

Printed Circuit Board and Multi-Chip Module (PCB & MCM) revenue of \$165.6 million increased 26 percent compared to Q4 2009. The four-quarters moving average for PCB & MCM increased 6.1 percent.

Semiconductor Intellectual Property (SIP) revenue totaled \$381.0 million in Q4 2010, a 39.7 percent increase compared to Q4 2009. The four-quarters moving average increased 33.9 percent.

Services revenue was \$82.8 million in Q4 2010, an increase of 0.1 percent compared to Q4 2009. The four-quarters moving average decreased 8.7 percent.

Revenue by Region

The Americas, EDA's largest region, purchased \$643.8 million of EDA products and services in Q4 2010, an increase of 14.8 percent compared to Q4 2009. The four-quarters moving average for the Americas increased 7.5 percent.

Revenue in Europe, the Middle East, and Africa (EMEA) was up 7.2 percent in Q4 2010 compared to Q4 2009 on revenues of \$273.7 million. The EMEA four-quarters moving average increased 6.0 percent.

Fourth quarter 2010 revenue from Japan increased 17.3 percent to \$277.2 million compared to Q4 2009. The four-quarters moving average for Japan increased 0.6 percent.

The Asia/Pacific (APAC) region revenue increased to \$313.1 million in Q4 2010, a 48.9 percent increase compared to the same quarter in 2009. The four-quarters moving average increased 39.6 percent.

About the MSS Report

The EDA Consortium Market Statistics Service reports EDA industry revenue data quarterly and is available by annual subscription. MSS report data is segmented as follows: revenue type (product licenses and maintenance, services, and SIP), application (CAE, PCB/MCM Layout, and IC Physical Design and Verification), and region (the Americas, Europe Middle East and Africa, Japan, and Asia Pacific), with many subcategories of detail provided. The report also tracks total employment of the reporting companies.

About the EDA Consortium

The EDA Consortium is the international association of companies that provide design tools and services that enable engineers to create the world's electronic products used for communications, computer, space technology, medical, automotive, industrial equipment, and consumer electronics markets among others. For more information about the EDA Consortium, visit <http://www.edac.org> or to subscribe to the Market Statistics Service, call 408-287-3322 or email mss10@edac.org.

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Mentor Graphics Proceeds with Convertible Debt Offering

31 March 2011

Mentor Graphics Corp. announced that the company's Board of Directors had affirmed its decision to proceed with the \$253 million offering of 4.00% Convertible Subordinated Debentures due 2031 (the "4.00% Debentures") announced on March 29, 2011.

"the high level of institutional investor interest in our new convertible debt offering resulted in attractive terms for the company and demonstrated strong investor support for Mentor's business strategy and long-term prospects."

.The offering of the 4.00% Debentures allows the company to replace not only its outstanding 6.25% Convertible Subordinated Debentures due 2026 but also its \$18.5 million secured term loan. The offering provides the following financial benefits:

- Reduces the cash interest rate on outstanding debentures from 6.25% to 4.00%;
- Increases the conversion price on Mentor's debentures from \$17.97 to \$20.54 per share;

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- Reduces dilution by using \$25.0 million of proceeds to repurchase approximately 1.7 million shares;
- Extends the date on which debenture holders can force repayment by five years, from 2013 to 2018;
- Provides Mentor the ability to negotiate an amendment to extend the term of its existing revolving credit facility beyond 2013; and
- Effectively reduces interest costs from the company's secured term loan from 4.81% to 4.00%.

The initial purchasers of the 4.00% Debentures exercised their over-allotment option to purchase \$33 million of additional 4.00% Debentures on March 30, 2011. Commenting on the offering, Gregory K. Hinckley, President and Chief Financial Officer of Mentor, stated, "the high level of institutional investor interest in our new convertible debt offering resulted in attractive terms for the company and demonstrated strong investor support for Mentor's business strategy and long-term prospects."

The company also announced that its Board has rejected Carl Icahn's loan proposal that was received on the night of March 29, 2011 after the company had priced its 4.00% Debentures offering. The Board noted that Mr. Icahn's last-minute debt financing proposal lacked detail on important terms. To the extent that proposed basic terms were provided, the Board noted that the Icahn proposal had a higher interest rate and found that the Icahn proposal for only a two and one half year maturity would interfere with the company's ability to negotiate a meaningful extension of its revolving credit facility that is set to expire in June 2011, creating unnecessary risk in the company's capital structure. Mr. Icahn's proposal was also not a binding commitment. Moreover, prior to the launch of the 4.00% Debentures offering, Mentor's Board carefully had evaluated the merits of a non-convertible debt financing as compared to a convertible debt financing and concluded that the latter was the more appropriate course of action. For these and other reasons, the Board affirmed that it was in the best interests of the company and its shareholders that the company proceed with the offering of its 4.00% Debentures.

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Nemetschek Publishes Annual Report and Increases Earnings Forecast for 2011

28 March 2011

Nemetschek AG published its annual report today. As was announced with the preliminary figures, the group managed to increase sales revenues by 10.4 percent to 149.7 million euros in 2010.

As a result, the operating result (EBITDA) increased to the record level of 37.1 million euros (previous year: 30.4 million euros). The EBITDA margin amounted to 24.8 percent, up from 22.4 percent in the previous year. The operating profit (EBIT) increased from 20.9 million euros to 27.5 million euros. At 18.9 million euros (previous year: 12.2 million euros), the net income (consolidated shares) increased significantly. The earnings per share (consolidated shares, basic) are 1.97 euros, up from 1.27 euros in the previous year.

The strong operating result is also reflected in the cash flow: the cash flow from operating activities increased from 23.4 million euros to 32.3 million euros. The cash flow from investment activities amounted to -3.8 million euros. Compared with December 31, 2009, the cash and cash equivalents increased from 22.9 million euros to 30.6 million euros. The Nemetschek Group's equity ratio is 57 percent (December 31, 2009: 50 percent).

With the record earnings of 2010 in mind, the managing board and supervisory board have decided to propose doubling the dividend to 1.00 euro at the annual general meeting in May. "Now is the right time

for our shareholders to participate substantially in the success of the company,” commented Ernst Homolka, CEO, Nemetschek AG.

Earnings forecast raised slightly

For the current fiscal year, Nemetschek is planning to increase revenues significantly by around 10 percent to approximately 165 million euros. To achieve this, the group wants to drive forward with its internationalization activities. Furthermore, both the group’s subsidiary companies and the Nemetschek holding company have planned substantial investments in 2011 to develop web-capable software solutions and to be able to offer new services over the internet in the future.

In the current annual report the management defines more precisely the forecast that was first announced in the middle of February concerning the expected earnings. With sales revenues at the expected level, Nemetschek will achieve an operating result (EBITDA) of around 40 million euros for the year as a whole. This corresponds to an EBITDA margin of around 24 percent.

After depreciation of tangible fixed assets and amortization of intangible assets (including purchase price allocation) of around 10 million euros the EBIT will presumably amount to around 30 million euros. In view of the falling interest charges, the net income will thus increase to over 20 million euros.

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Implementation Investments

Apriso Selected by HITCO to Use FlexNet as Enterprise Manufacturing Execution System

29 March 2011

Apriso announced HITCO Carbon Composites, Inc. (HITCO) has selected Apriso’s FlexNet as their enterprise [manufacturing execution system](#). Apriso’s aerospace and defense industry solution will be implemented to streamline HITCO’s manufacturing execution operations. In addition, Apriso’s solution will help expand continuous improvement initiatives surrounding the company’s operations, quality and global product traceability and genealogy. HITCO is a subsidiary of SGL Group – The Carbon Company, and manufactures advanced composite structures and materials for aerospace and defense applications.

Apriso supports paperless process enforcement and the maintenance of process plans, including customer approval. As each new product design or process is established or changed, subsequent as-built data for new products and/or process will reflect these changes. This history includes the necessary records to support the company’s [product traceability](#) and genealogy requirements under regulatory control, as required under guidelines from agencies such as the International Aerospace Quality Group (IAQG) among others, as well as customer specific requirements.

“We were looking for a solution that is advanced, comprehensive and would help integrate production, quality and traceability best-practices across our organization and supply chain while supporting our current growth plan,” said Anthony Lawson, President of HITCO. “We are pleased to work with Apriso as our industry incorporates new composite structures and materials into advanced aircraft designs.”

The use of new composite materials in aerospace and defense manufacturing has created growth opportunities for companies like HITCO, with new products to support this evolution. The company provides composite structures for new aircraft like the F-35 Lightning II and the Boeing 787. A

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component of HITCO's selection process was based on the paperless capabilities and flexibility that FlexNet offers, helping the company to quickly adapt as manufacturing innovations occur while keeping pace with increases in demand growth.

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AxSTREAM to Assist SMTU Students with Marine Turbine Design

29 March 2011

SoftInWay Inc. has signed an agreement with the State Marine Technical University of St. Petersburg (SMTU) to incorporate AxSTREAM Educational Version into the curriculum of Department of Marine Turbines and Turbine Plants, Faculty of Marine Engineering.

AxSTREAM Educational Version was created with the goal of familiarizing students with the basics of turbomachinery design and optimization. It enables flow path design using overall application requirements, flow path optimization including 1D/2D direct problem formulation, cascade profile generation, finding the optimal twist law for classic and long blades, and 3D blade design using custom lean and sweep. As a result, the graduates will gain a broad-based introduction and a deeper understanding of the flow path design procedure, while their teachers will receive valuable practical material.

“We are strongly focused on creating a new generation of well qualified specialists who will bring today's marine technology to a higher level, – stated Dr. Leonid Moroz, President and CEO of SoftInWay Inc. – In my opinion, the recent integration of AxSTREAM software into the SMTU teaching process will result in reinforced instruction and increased speed of learning among the future marine engineers.”

Since AxSTREAM software for turbomachinery design and optimization is currently used by major engineering companies, such as Dresser-Rand (USA), MAN Turbo (Germany), Wood Group (Switzerland) and Avio Group (Italy), to name just a few, it is important to use it to provide students with the appropriate education and inspiration, as well as to prepare them for successful engineering careers.

AxSTREAM version for academia is available for axial / radial turbines and compressors, and can be ordered via <http://www.softinway.com/education/axstream-educational-version.asp>.

About SMTU

SMTU was established in 1930 and got the name of Leningrad Shipbuilding Institute (LSI). In 1992 the Institute was renamed to St. Petersburg State Marine Technical University (SMTU). At present, SMTU is a large education and research center with about ten thousand students. The academic staff of the University is over seven hundred persons, the majority being doctoral degree holders. The university offers more than forty courses leading to Bachelor and Master degrees, to Diplomas of Engineer, Economist and Manager, Sociologist, Secondary School Teacher and Lawyer. Postgraduate preparation in general Engineering, sciences and maritime applications, leading to doctoral degrees is also available. All educational programs are provided with laboratory equipment, computer facilities and library services.

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Baltic Yachts Transforms Business with Dassault Systèmes PLM Solutions

29 March 2011

[Dassault Systèmes](#) announced that Baltic Yachts has chosen CATIA Marine solutions to create better boats, faster and more efficiently. Founded in 1973, Baltic Yachts is globally known for its pioneering custom yachts combining innovative materials and technologies with high quality craftsmanship.

With many of its projects increasing in size and complexity over the years, Baltic Yachts needed tighter control over its design and engineering process. After evaluating different options to replace their existing CAD system, Baltic Yachts selected CATIA from Dassault Systèmes as the solution to integrate the complete value chain, provide the flexibility needed for its collaborative design and engineering processes while supporting the company's creativity and innovation with state-of-the-art modules and methodologies dedicated to the marine industry.

"We expect this new solution to help in the transformation of our business, facilitating the extension of services to our customers, better management of our production, and future growth," said Marjo Keiramo, managing director, Baltic Yachts.

"The CATIA methodology is particularly suitable for our composite yachts due to the iterative definition that we must perform in collaboration with naval architects, engineering and component suppliers," added Henrik Sjöblom, technical director, Baltic Yachts. "The flexibility of CATIA allows our designers to easily link the objects created by different stakeholders inside a complete digital mockup without limitations in data volume, where we can mix various data formats coming from suppliers. It's a big improvement for us."

Built on an open architecture, CATIA for Marine solutions enable a flow of information across all actors in the yacht building value chain, covering the three main disciplines – structure, systems, and interiors – on a single collaborative platform, while offering a unique integration of the marine process.

CATIA was implemented by RAND Finland, a consulting firm specialized in Dassault Systèmes PLM solutions and supported by Dassault Systèmes marine industry experts. Dassault Systèmes has a team dedicated to marine customers and recently launched an initiative in Jakobstad in Finland, where one of Baltic Yacht's production plants is located, to support the local marine industry.

"The [Baltic Yachts](#) decision demonstrates that our products and specialized methodologies fit perfectly with the industry processes and expectations. We are delighted to have Baltic Yachts join the growing CATIA community of more than 130 yacht customers," said François Mathieu, yacht market development leader at Dassault Systèmes.

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Dassault Systèmes Helps National Taiwan University Improve Electric Car Design with CATIA and SIMULIA Solutions

29 March 2011

[Dassault Systèmes](#) announced today that the FORMOSUN research team of National Taiwan University has designed and built electric vehicles with the help of CATIA for virtual design and Abaqus Finite Element Analysis (FEA) from SIMULIA for virtual testing.

.Since 2000, the engineering department at National Taiwan University has been researching and developing electric vehicles for a sustainable future. From the ground up, undergraduate and graduate

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students of the FORMOSUN team have designed and developed three solar cars, one hybrid fuel cell scooter, an intelligent personal lightweight electric vehicle (iPLEV), and an electric passenger car.

“Students with limited experience are not fully capable of performing difficult design and engineering tasks,” said Dr. Jung-Ho Cheng of National Taiwan University. “However, with the help of CATIA and Abaqus FEA software, our students have the opportunity to tackle all of the design and analysis problems more efficiently.”

Beyond fundamental structural and thermal analyses with Abaqus FEA, the team utilized an optimization tool to streamline the analysis process for future designs and leverage the open functionality in Abaqus/CAE for improving usability by less experienced students. CATIA for virtual design, and Abaqus for realistic simulation, have been used to create lightweight designs of electric vehicle chassis, structures and electric motors.

“By applying robust realistic simulation solutions, the students at National Taiwan University have challenged themselves to design eco-conscious cars with better efficiency and reliability,” stated Ken Short, VP, Strategy and Marketing, SIMULIA, Dassault Systèmes. “These ‘future’ cars are emerging on the market faster through the use of virtual design and virtual testing solutions that accelerate the delivery of innovative products.”

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Fairchild Semiconductor Achieves First-Pass Silicon Success with DesignWare USB 2.0 nanoPHY IP

31 March 2011

Synopsys, Inc. announced that Fairchild Semiconductor (Fairchild) has achieved first-pass silicon success for its FUSB2500 UTMI+ Low-Pin Interface (ULPI) USB On-The-Go (OTG) transceiver chip utilizing [Synopsys' DesignWare®](#) USB 2.0 nanoPHY IP. Fairchild selected Synopsys' silicon-proven DesignWare IP because it was low in power and area and offered impressive technical features, including auto-detect functionality and ULPI interface. In addition, the tunability of the PHY enabled Fairchild to conduct post-silicon adjustments without incurring the cost of a metal respin. Fairchild was able to integrate the DesignWare USB 2.0 nanoPHY IP within weeks and had convenient access to a knowledgeable, responsive technical support team. This combination enabled Fairchild to lower integration risk and speed their time-to-market.

Targeting the high-end handset market, the Fairchild FUSB2500 USB 2.0 OTG transceiver chip was an extremely complex design that would be their first 130 nanometer (nm) chip to be integrated by a major manufacturer. Fairchild acquired USB IP from Synopsys, an established IP provider, to allow them to focus on their product differentiation and meet their critical 14 month project schedule. Using Synopsys' DesignWare USB 2.0 nanoPHY IP enabled Fairchild to successfully launch their leading FUSB2500 transceiver chip into the market on schedule.

"With a tight development schedule and complex design requirements, we wanted to partner with a trusted and established IP vendor such as Synopsys," said Jerry Johnston, senior director of switch and interface at Fairchild. "The Synopsys' DesignWare USB 2.0 nanoPHY IP offered us a solution that would incorporate all of our design needs and meet our time-to-market window. Synopsys' DesignWare IP is a high-quality product and will continue to be a key element of our future product developments."

"As companies such as Fairchild develop differentiated products that help their customers maintain a

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competitive edge, they can rely on Synopsys to help provide them with the necessary IP to meet their critical time-to-market window," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "As a leading provider of USB IP, with over 2,000 design wins and millions of units shipping in volume, Synopsys invests heavily in developing high-quality DesignWare USB IP that delivers key functionality to address our customer's design requirements and reduce integration risk."

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IFS Applications Streamlines Operations at Porta KMI Poland

29 March 2011

[Porta KMI Poland](#), a woodwork manufacturer, has implemented IFS Applications to streamline its operations. The system is currently used by 550 users at Porta manufacturing plants in Poland and Romania. Porta KMI Poland specializes in manufacturing doors and door frames. The company has five advanced production facilities in Poland and a plant in Romania.

The company's annual production exceeds one million items. Since 2009, management of the company has been supported by IFS Applications.

An integrated MRP system for management support has been used at Porta KMI Poland since the mid-90s. In 2007 the Board of Directors decided to replace the solution with an advanced ERP system.

One of the main purposes for implementing IFS Applications was to speed up information flow within the company and to streamline production operations in Romania. Another aspect of key importance was ensuring system compliance with changing laws and regulations.

"Porta is a multi-branch company with a foreign subsidiary. It has a very complex structure which is difficult to handle when it comes to taxes, accounting and controlling. Therefore, ensuring compliance with current legislation is crucial for us," said Ryszard Schwartz, Director of Information Systems Development, Porta KMI Poland Sp. z o. o.

The main benefits of implementing IFS Applications has been automation of planning and production preparation processes, streamlining configurable production, improving logistics and unification of the production system in all the plants, both in Poland and Romania.

"The whole process of order delivery - from sending the customer's order to production, to creating a production order at the plant – is carried out automatically," Ryszard Schwartz said.

The system was designed for 600 users and was simultaneously launched in five Porta locations in Poland and at the production plant in Romania. IFS Applications was implemented in all key business areas. The system supports management of finance, distribution, manufacturing, design, logistics, human resources and payroll.

"Virtually all the areas are covered by IFS Applications: supply, production planning, financial planning, sales and purchase orders as well as production orders. We have implemented modules to support maintenance management, projects, finance, controlling and budgeting, HR and payroll," Ryszard Schwartz said.

"We are pleased that Porta KMI Poland can increase efficiency and reduce operational costs using IFS Applications," Marcin Taranek, CEO of IFS CEE said.

At the plants, Porta KMI Poland uses the following IFS modules: IFS Financials, IFS Distribution, IFS

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Manufacturing, IFS Maintenance, IFS Projects, IFS Human Resources and IFS Payroll. The system is currently used by 550 users in Poland and Romania.

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iWatt Selects Magma's Titan to Automate Analog Design of Power Supply Control ICs

28 March 2011

Magma® Design Automation Inc. announced [iWatt](#) has adopted the Titan™ platform to improve analog design and layout productivity, and to automate difficult routing tasks including analog cell layouts and chip-level assembly. iWatt, a developer of energy-efficient digital power supply control integrated circuits (ICs) used in leading-edge power supplies, adopted Titan based on results of an extensive evaluation in which Titan enabled iWatt's designers to set up and route a design in just 2 days — an effort that would have taken more than 2 weeks to do manually.

"iWatt's mission is to exceed our customers' expectations with best-in-class products and services throughout the solutions life cycle," said X. Jin, Ph.D., vice president of Engineering at iWatt. "One of the ways we do that is to utilize innovative technology — such as Magma's Titan — that shorten the analog design process and reduce power and area requirements."

"To enable analog designers to deliver the required combination of efficiency, productivity and innovation needed for today's ICs, the analog design process must be accelerated and automated," said Anirudh Devgan, general manager of Magma's Custom Design Business Unit. "By making analog routing fast, predictable and repeatable, Titan improves routing productivity by a factor of 10, allowing designers to achieve their time-to-market and performance goals. Titan should help iWatt solidify its position as one of the most innovative power IC companies in the world."

Titan: Accelerating Analog Design

Magma's mixed-signal SoC design environment includes the comprehensive Titan Mixed-Signal Design Platform and the Titan Accelerators. The Titan Mixed-Signal Platform is the industry's first true mixed-signal design platform. It integrates implementation and verification while delivering first-time-correct, predictable mixed-signal designs. The Titan mixed-signal platform includes user-friendly full-custom schematic and layout editors, an analog simulation environment and correct-by-design schematic-driven layout.

Titan Accelerators are advanced technology solutions that improve analog/mixed-signal design productivity and reuse. Titan Analog Design Accelerator (Titan ADX) is a model-based analog design and optimization tool that enables analog design reuse. ADX creates new designs from Magma's library of FlexCell building blocks, and makes existing designs reusable as FlexCell models. Titan Analog Virtual Prototyper (Titan AVP) is a layout-aware schematic design tool that performs simultaneous electrical and physical co-design for rapid schematic-to-layout convergence. Titan Analog Layout Accelerator (Titan ALX) automates migration of analog cell layouts to new process technologies while preserving design intent. Titan Shape-Based Router (Titan SBR) automates difficult routing tasks improving routing productivity by a factor of 10.

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State Nuclear Electric Power Planning Design and Research Institute Selects Intergraph® SmartPlant® Foundation

31 March 2011

State Nuclear Electric Power Planning Design and Research Institute (SNPDRI) based in Beijing, China, has chosen Intergraph® SmartPlant® Foundation and other SmartPlant Enterprise solutions to manage engineering data for its AP1000™ project.

As a subsidiary of State Nuclear Power Technology Corporation (SNPTC), SNPDRI sought a standard engineering database to easily share engineering data within the organization and with SNPTC. SNPDRI chose Intergraph's SmartPlant Foundation. SmartPlant Foundation is the "e-Engineering integration hub" for SmartPlant Enterprise and will enable SNPDRI to manage its data more efficiently and ensure that valid, consistent and high-quality engineering data is shared between applications and users when and where they need it. SmartPlant Foundation, along with other solutions from the SmartPlant Enterprise suite, will be implemented company-wide across all of [SNPDRI's](#) worldwide projects.

SmartPlant Foundation is Intergraph's total solution for plant information management and supports global collaboration between clients, contractors and suppliers. It ensures an open, independent data storage system with secure access to protect plant information for the life of the plant, and addresses all of the design, build and operation requirements of a facility throughout the entire plant lifecycle. Designed for phased implementation by owner operators and EPCs, ISO 15926-compliant SmartPlant Foundation encompasses a plant's design, modifications, upgrades and refurbishment, effectively managing the evolving plant configuration from front-end engineering design to plant decommissioning. It is the only product on the market today that supports such a wide scope and yet is deployable in a modular, incremental fashion, if required.

"We are pleased to have Intergraph as our technology partner to support the growth of our power plant and nuclear conventional island business globally," said Gai Qiqing, director at SNPDRI. "SmartPlant Enterprise integrated solutions, including SmartPlant Foundation, will enhance SNPDRI's design processes through the effective management of high-quality engineering data for all of our projects."

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Weatherhaven Deploys Portable Shelters with Help from Autodesk Inventor Softwares

28 March 2011

Autodesk, Inc. has named Weatherhaven as the Autodesk Inventor of the Month for March 2011. Weatherhaven has been using Autodesk Inventor software to create portable shelters designed for use in the most rugged and remote locations around the world.

Weatherhaven shelters have supported activities ranging from earthquake relief efforts in Haiti to scientific expeditions in Antarctica and peacekeeping missions in the Sahara Desert. Inventor software helps to reduce the time required to create and deploy the shelters.

Given the urgent nature of its customer needs, Weatherhaven must not only rapidly configure and manufacture systems, but also ensure they are mobile, redeployable and lightweight so the shelters can be quickly and easily broken down, moved and reassembled when an operation shifts locations.

"Inventor software plays a critical role for our company in improving our innovation, competitiveness and response time in serving customers, often enabling us to out-compete companies several times our

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size,” said Ray Castelli, chief executive officer at Weatherhaven. “Weatherhaven is deeply honored to be recognized as Autodesk’s latest Inventor of the Month.”

Autodesk partner [IMAGINiT](#) Technologies provided training and support to enable Weatherhaven to more fully embrace Digital Prototyping and create lighter, more mobile shelters. Creating a 3D digital model in Inventor helps make it easier for engineers to maintain focus on safety requirements, even as they optimize the design and lower the overall weight of the shelter.

Digital Prototyping Streamlines Product Development

Inventor automatically calculates the weight of various parts and assemblies as Weatherhaven engineers create the designs. In addition, by using integrated finite element analysis in Inventor software, engineers can better predict important factors, such as stress, and tweak the design accordingly.

“By using Digital Prototyping in Autodesk Inventor, we have much more confidence that our designs will be manufactured the way we intend,” said Ryan Savenkoff, design engineer at Weatherhaven. “We can even drop digital models created by our suppliers into our assemblies to check for possible interferences. Digital Prototyping has significantly reduced the time we need for product development, from concept to manufacturing.”

As a result, [Weatherhaven](#) now builds fewer physical prototypes, relying more heavily on Digital Prototyping to explore and validate designs. Since physical prototypes of a Weatherhaven shelter can cost up to \$100,000 to build, Inventor software has already more than paid for itself.

Weatherhaven also uses Autodesk Vault product data management software to reuse designs and more effectively manage iterations and revisions, significantly reducing the need for rework and enabling the company to better respond to customers.

About the Autodesk Inventor of the Month Program

Each month, Autodesk selects an Inventor of the Month from the users of Autodesk Inventor software, which takes manufacturers beyond 3D to Digital Prototyping. Winners are chosen for engineering excellence and groundbreaking innovation. For more information about Autodesk Inventor of the Month, contact IOM@autodesk.com.

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Product News

Agentrics Releases a “FSMA Readiness Promotion”

31 March 2011

Agentrics announced the release of its FSMA Readiness Promotion. “This promotion is an industry first. Agentrics understands the urgency around FSMA readiness and our objective is to provide clients with an actionable and affordable path to compliance.” says Kurt Johnson, VP North America.

Agentrics will include the Quality Assurance module and waive the associated subscription fees with any new Agentrics PLM software package bought before April 30th, 2011.

The Food Safety Modernization Act will define new regulations for food facilities and food importers.

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The FDA will have the ability to mandate recalls. US Retailers seeking to protect their brand and keep pace with the evolving regulatory environment will need Audit, Traceability and Issue Management processes and procedures in place. Agentic's PLM software provides a foundation for total visibility and total control of the product, suppliers, components and raw materials. The Quality Assurance function with Agentic's PLM automatically captures and stores quality procedures linking protocols to product, specifications, as well as different suppliers and plants so that auditors have visibility of the issues requiring evaluation. Automatic alerts notify you of key tasks for completion, eliminating the need for frequent meetings to update the status of a product under development.

The Agentic's Quality Assurance management module offers innovative functionality directly addressing inefficiencies in quality assurance & vendor qualification processes, cumbersome issue management techniques, and the heavy financial impact of product recalls. Our experience has shown that much of the expense involved in recalls and issue management is attributed to the time and the labor involved in managing the response. Day-to-day management of customer complaints and supplier audits cost an estimated \$100,000 in internal labor on these specific tasks alone.

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Agilent Technologies Ships Latest Advanced Design System Platform for RF and Microwave Design and Simulation

30 March 2011

Agilent Technologies Inc. announced shipment of the latest release of its flagship RF and microwave design and simulation platform, Advanced Design System 2011. ADS 2011 represents a significant breakthrough in electronic design automation.

Agilent also announced that its work with GaAs/GaN and RF SiGe/BiCMOS/CMOS foundries and relevant SMD component vendors has resulted in their support for ADS 2011. During the past six months, the majority of existing ADS process design kits and libraries have been upgraded and verified on early access releases. These upgraded kits and libraries will be made publicly available to foundry and component vendor customers in the coming days, enabling them to take advantage of new capabilities in ADS 2011.

The new kits work with ADS 2011.01, as well as ADS 2009 Update 1 and prior ADS releases. As a result, users need only download and install the desired kit, independent of which ADS release they are using. Requests for specific kits should be directed to the appropriate component vendor or foundry.

About ADS 2011

ADS 2011 provides engineers with a multi-technology design environment for designing individual RF and microwave integrated circuits with different technologies (e.g., GaAs, SiGe, GaN, and Silicon CMOS). It features electromagnetic technologies for faster, more accurate simulations; a use model that makes electromagnetic simulation easy for all engineers; layout improvements for easier physical design; and dozens of improvements designed to enhance the platform's functionality and usability. With ADS 2011, design verification no longer needs to stop at the boundary of a single integrated circuit's or module's technology.

Availability

Existing ADS customers can download ADS 2011 by visiting <http://www.agilent.com/find/eesof-ads-latest-downloads> and selecting the Downloads & Trials tab.

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Cadac Organice Introduces Workbox 2010 R3

31 March 2011

Cadac Organice, Microsoft Partner Network member and developer of [Cadac Organice](#) (a SharePoint based engineering document management solution), introduces Cadac Organice Workbox 2010 R3. This new release includes new features and functionalities for advanced workflow management in Microsoft SharePoint.

Software solution for workflow management in SharePoint

[Cadac Organice Workbox](#) is a software solution for workflow management in Microsoft SharePoint. It supports [project-driven engineering industries](#) in automating their business processes with productive SharePoint workflows. Release 2010 R3 of Cadac Organice Workbox offers several new features and functionalities, such as decisions, workflow launching parameters, for-each-item loop, expanded lookup filters and additional reporting capabilities.

New features and functionalities in release 2010 R3

Decisions allow automatic redirection of one action to another depending on conditions and permissions, without the need for user intervention. Workflow launching parameters allow presetting the value of workflow variables when launching the workflow. The for-each-item loop is an activity that makes it possible to execute a set of activities on each item in a list matching certain conditions. Further lookup filters have been extended with additional options and reporting has been extended with the possibility to export workflow data to SQL Reporting Services, Microsoft Excel or other reporting tools to create and run all kinds of custom reports.

Compatibility and availability

Cadac Organice Workbox 2010 R3 is compatible with Microsoft SharePoint 2010 Foundation and Server and is available to customers from March 31st 2011.

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Cadence Releases Industry's First Wide I/O Memory Controller IP Solution

28 March 2011

Cadence Design Systems, Inc. announced that it is first to market with a licensable, wide I/O memory controller core, along with an integration environment, that brings PC-like performance to mobile applications like smartphones and tablets.

Enabling up to four times the performance of conventional memory interfaces, the Cadence wide I/O interface not only meets the performance metrics of the proposed specification, but includes unique optimizations such as traffic reordering and several low-power features that lead to better overall system operation. Complemented by memory models, verification IP (VIP) and a sophisticated 3D IC design methodology, the wide I/O IP lowers the risk and overall cost of SoC design.

“We understand that customers not only need robust IP, but also require sophisticated technologies and

methodologies for successful integration into a design,” said Vishal Kapoor, vice president of marketing for the SoC Realization Group at Cadence. “The Denali acquisition has given us access to over a decade of experience in advanced memory and storage controller IP. When combined with our exceptional 3D IC technologies and services, we give mobile designers a holistic, proven approach to the development of differentiated SoCs that meet the unique space, performance and power requirements of mobile systems.” According to Cadence, the IP is already in use by a high-profile customer on two separate projects.

Wide I/O, a memory interface standard in review at JEDEC, defines a 512-bit wide interface to dramatically increase the bandwidth between memory and logic. The interface operates at a peak data transfer rate of 12.8 gigabytes per second (GB/s), which is up to four times the performance of conventional low-power memory solutions. The wide I/O interface allows a large array of low-cost and low-power connections between an application processor and the DRAM stacked on top of it. The result is a system that can achieve higher bandwidth with less power while also meeting the goals of reduced PCB area and component height. As a result, it is critical that designers also have access to advanced 3D IC assembly and design methodologies.

Differentiated Features Optimize Power and Performance at the System-level

Designed to enable maximum system-level performance, the wide I/O memory controller includes advanced algorithms to ensure highly efficient data transfer and to intelligently schedule transactions, delivering unprecedented sustained and peak performance for mobile applications. The IP has the capability of reordering traffic by monitoring system transactions and delineating between low priority and system critical tasks. These unique capabilities enable the IP to maximize bandwidth and minimize latency on critical transactions.

The Cadence wide I/O interface also goes beyond the proposed low-power metrics of the standard, offering additional power-saving features such as “traffic sensing,” which automatically adjusts the power consumption based on the type of traffic. The IP has been designed to support operation at multiple frequencies, and allows designers to implement advanced power-control techniques, such as dynamic voltage and frequency scaling (DVFS), to reduce power even further. A flexible and configurable design allows the memory controller IP to be custom-fit for each SoC, further reducing time-to-market and risk.

Applying EDA360 Vision to Wide I/O and 3D IC Design

Because the majority of wide I/O designs will require stacking of memory on top of logic, designers will need a sophisticated, comprehensive 3D IC platform for realizing their SoCs. The Cadence 3D IC platform includes advanced capabilities, such as support for through-silicon vias (TSVs), to enable the use of vertical electrical connections for significantly reduced board space, cost and power.

A 3D IC approach also requires expertise in all aspects of design, from digital and analog circuitry to packaging and PCB design layout. Offering digital, mixed-signal and analog end-to-end flows, as well as advanced PCB layout expertise, Cadence offers the holistic approach required to successfully integrate the wide I/O interface onto an SoC.

The wide I/O IP and integration platform are an important step toward achieving the EDA360 vision outlined by Cadence last year. The vision states that semiconductor companies can no longer just provide component IP, but must deliver solutions that ensure smooth integration of that IP into SoCs. The solution enables customers to move toward a key tenet of the vision, called SoC Realization, which seeks to ease IP integration and enable customers to realize SoCs with reduced risk and cost.

Availability

The [Cadence](#) wide I/O memory controller and supporting VIP are available now.

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Free FEA Mobile Application -- Now Available for Download

29 March 2011

NEi Stratus is now available for download at the Apple App Store. NEi Stratus allows engineers to use their iPhone, iPod touch or iPad to experience mobile FEA technology for free. Engineers can perform finite element analysis on basic shapes such as flat plates, blocks, cylinders and tubes.

What: Free Mobile FEA application from NEi Software for the iPhone, iPod touch or iPad

Where: Apple

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Gerber Technology and Virtek Launch LaserKit™ Laser-Guided Kitting Solution Collaboration

29 March 2011

Virtek Vision International, a business unit of Gerber Technology, announces the launch of LaserKit, a patented laser-guided kitting tool that helps workers assemble accurate kits by indicating the correct sequence of plies to be picked from the cutting table. Field tests reveal that LaserKit enables users to reduce composite cutting and kitting times by as much as 40 percent.

Ray Lampron, Continuous Improvement Leader at GKN Aerospace Services Structures Corp., a manufacturer of structural composite parts for aerospace applications, and beta test site of LaserKit said, "LaserKit reduced our overall cut and pick times by as much as 40 percent and lowered the possibility of operator error. It also decreased training times since operators no longer have to 'learn the bed.' The software is easy to use so it's practical even for short run jobs."

Virtek LaserKit uses a highly-visible laser to lead workers through the proper sequence of picking from the first ply to the last. The laser projects the outline as well as any identifying information on each ply thereby eliminating the risk of errors that may occur during picking when similar plies are located in the same vicinity on the cutting table. Available as an option to LaserKit is a lightweight printing device worn on a worker's belt strap which prints labels automatically or on demand, significantly accelerating the ply identification process. Labels can be affixed to individual plies or completed kits.

Todd Rhodes, executive director of Gerber's Composites and Automation Solutions business, said, "With LaserKit, manufacturers can nest plies to achieve maximum composite material utilization without having to consider how the cut plies will be picked. In fact, to maximize material utilization, multiple kits can be nested together, cut and then picked from the same table. The LaserKit system directs workers on which plies to pick for each kit so workers can later lay up cut plies accurately and quickly on the tool. It's critical in eliminating material waste and errors caused by incorrect ply order within a kit."

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Magma's New Excalibur-Litho is First System to Efficiently Integrate Real-Time Data From

Semiconductor Manufacturing Floor With CAD Information, Speeding Yield Ramp at Advanced Nodes

30 March 2011

Magma® Design Automation Inc. announced Excalibur-Litho™, a complete fab analysis framework that supports the development and monitoring of advanced lithography solutions. Excalibur-Litho is the first system to integrate design and real-time data from the semiconductor manufacturing floor, including defectivity, metrology and tool history, enabling an unmatched level of data analysis, monitoring and process control. Excalibur-Litho optimizes yield ramps with built-in solutions for litho qualification through the proprietary coupling of design-based binning, electrical cross mapping, and fab-wide data correlation. This enables defect isolation and root cause analysis.

"Excalibur-Litho is based on a proven fab analysis framework that provides comprehensive examination of inline lithography-based defects," said Ankush Oberai, general manager and vice president of Magma's Fab Analysis Business Unit. "By leveraging a proven infrastructure that has access to both design and fab data, Excalibur-Litho turns data into knowledge, accelerating lithography-based process improvement."

Magma and Applied Materials, Inc. announced on Feb. 28 a collaborative effort to integrate Magma's CAD-based navigation and yield analysis software, which includes Excalibur-Litho, with Applied Materials' advanced inspection tools, such as the Applied UVision™ 4 system. "This unique combination of design and manufacturing tools has accelerated lithography qualification and enabled quicker yield ramp at multiple customers for the development and production of advanced technology nodes," said Erez Paran, manager, Integrated Solutions for Applied Materials' Process Diagnostics and Control business unit.

Excalibur-Litho: From Data to Knowledge

Excalibur-Litho collects and organizes data from the manufacturing process, including defectivity, metrology, electrical tools and manufacturing execution system (MES) data. Wafer information is stacked and easily cross-mapped to any one of the layout, schematic or netlist design representations for easy analysis.

Excalibur-Litho is built on an open-architecture database developed by Magma that enables safe and secured CAD access and easy fab integration. This open architecture also ensures interoperability with most inspection tools and yield analysis databases.

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Mentor Graphics Outlines Strategy for 3D-IC Design, Verification and Testing

March 2011

[Mentor Graphics Corporation](#) described its strategy for meeting the EDA requirements of designing, verifying, manufacturing and testing integrated circuit products using multi-die vertical stacking technology, popularly referred to as "3D-IC." It also announced its 3D-IC testing solution employing multiple components of the Tessent® design-for-test product line for integrated multi-die hierarchical scan and built-in self-test (BIST) methodologies.

"3D-IC is generating a huge amount of interest and exploration because it offers an alternative to traditional scaling for achieving advances in performance, reduced power consumption, cost reduction,

and increased functionality in a small package,” said Walden C. Rhines, CEO and chairman of Mentor Graphics. “We’re validating the use of our products for successful 3D-IC development with our leading customers who are actively working on products employing multiple die stacking approaches, including the use of interposers, or so-called ‘2.5D,’ and full 3D with through silicon vias (TSVs). Regardless of which approach a customer selects, customers will have a Mentor solution available to them.”

“Today, we’re describing our 3D-IC test solution, which addresses both 2.5 and full 3D test requirements,” said Joseph Sawicki, vice president and general manager of the design-to-silicon division at Mentor Graphics. “At the upcoming Design Automation Conference we will talk more about our multi-die design rule checking, layout versus schematic, and extraction solutions for 3D-IC, which will address the impact of TSVs on physical verification. And, in the coming months we will describe solutions for interposer and package routing as well as product roadmaps to meet the future needs of the market.”

Hierarchical Test for 3D-IC

The Tessent solution for 3D-IC test provides a combination of capabilities that work together to deliver the highest test quality while reducing development time and manufacturing test costs. The combination of the Tessent TestKompress® and Tessent LogicBIST logic test products create both highly compressed deterministic scan patterns, and on-chip generated random patterns that together ensure very high coverage while minimizing test time. This is critical since low defect rates at the “known good die” stage are critical to achieving acceptable package yield in 3D-IC production. Low test time becomes even more important for 3D because die stacking may require additional test stages for partial assemblies.

Another key requirement of 3D-IC is the ability to fully test the assembled multi-die structure, which presents challenges in test access and throughput. Successful testing depends on the ability to combine logic built-in self-test (LBIST), memory BIST, analog test and boundary scan test in an integrated fashion, and to distribute test commands and patterns across multiple die in a hierarchical manner. The Mentor® Tessent TestKompress, Tessent LogicBIST, Tessent MemoryBIST, Tessent BoundaryScan, Tessent PLLTest and Tessent SerdesTest products work together to provide a seamless infrastructure for testing 3D structures including processor cores, logic, memory and high-speed I/O. A key advantage of the Tessent solution is the ability to reuse die-level ATPG and BIST tests at the package level. The Tessent insertion technology enables the creation of a hierarchical DFT architecture that is based on the IEEE 1149.1 standard with 3D-related enhancements such as TSV-based “test elevators.” This test distribution and control architecture enables die-level patterns to be routed through multiple die after packaging. Scan patterns can target TSV interconnects by accessing scan chains on multiple die. In addition, die-targeted ATPG patterns can be retargeted to the package level with automatic pattern re-timing, allowing engineers to reuse patterns and reduce test development time.

The Tessent MemoryBIST product provides at-speed testing of stacked memory die with support for all popular DRAM protocols, and allows memory parameters (address size, waveforms) and test algorithms to be programmed post-silicon. This allows memory BIST controllers in a logic die to handle a variety of memory die stacked on top for different product variations. The product also supports at-speed testing of memory buses, which covers both bond wires and TSV interconnects. A shared-bus capability enables test of multiple memory die on the same interconnect.

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Mentor Graphics Teams with TSMC to Enrich Reference Flow 11 Low Power Verification Solutions

28 March 2011

[Mentor Graphics Corporation](#) announced it has expanded the use of low power verification capabilities in TSMC's Reference Flow 11 to address today's complex integrated circuit (IC) low power functional verification requirements. The Mentor® low power verification tool suite includes the Questa® functional verification platform, the 0-In® CDC (Clock Domain Crossing) and the 0-In Formal tools and the FormalPro™ equivalence checking tool.

“Many design teams struggle with the functional verification of their designs where low power requirements put increased pressure to meet functional specifications,” said Suk Lee, director of Design Infrastructure Marketing at TSMC. “Mentor continues to show a high degree of commitment to enhance the capabilities of their functional verification technologies, and considerable foresight to determine what new capabilities will be required in the years to come.”

“Low power requirements are a top priority for a majority of our mutual customers,” said John Lenyo, general manager, Mentor Graphics. “That's why effective low power design verification solutions continue to be one of our top priorities, and we intend to extend our collaboration with TSMC on future reference flow programs.”

Low Power Functional Verification

Power management has become one of the most critical issues in most digital chips and systems. Portable systems must maximize battery life and virtually all products must minimize heat generation. Active power management creates new challenges for chip design and verification because the chip must now function correctly even though at any given time some portions of it may not be powered up. A comprehensive functional verification solution must verify not only the power management architecture, but also the power management control systems, while also verifying the underlying functionality of the design. The combination of the Questa functional verification platform, the 0-In CDC tool, the 0-In Formal tool and the FormalPro tool enables users to address all aspects of the low power verification problem.

The Questa functional verification platform supports power aware simulation of RTL and gate-level designs, including:

- Support of the Unified Power Format (IEEE P1801) for specification of power intent
- Accurate modeling of power management architecture and control logic
- Native implementation of UPF for high performance simulation
- Automatic insertion of assertions to check for power management errors
- Visualization and debug of power management behavior

The FormalPro tool ensures that the power intent in the RTL design is maintained through the implementation, including:

- RTL-to-gate and gate-to-gate power aware equivalence checking
- Native UPF language processing with full TCL 8.4 interpreter for multi-product UPF compatibility and user configurations
- Liberty 2.5 library compatibility with Power+Ground (PG) netlist support for RTL-to-PG compare

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- Full schematic support for PG netlist exploration

The 0-In Formal tool enables complete verification of active power management control structures, including:

- Automatic identification of design logic issues without assertions
- Complete verification of power control unit logic and power control signal sequencing

The 0-In CDC tool enables verification of complex clock domain crossings in low power design, including automatic identification of clock domains and synchronizers, formal and simulation-based CDC verification as well as automated metastability injection.

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Moldex3D Released a New Interface for Creo Elements/Pro: eDesignSYNC for Creo

30 March 2011

CoreTech System Co., Ltd. (Moldex3D) has released an eDesign interface for Creo Elements/Pro. Moldex3D eDesignSYNC, embedded in Creo's environment, enables designers to 'synchronize' design changes with the simulation capabilities of Moldex3D/eDesign in order to avoid irrational designs ahead of production.

"Modern CAE tools used to be applied mostly in the manufacturing sector to solve existing defects," said Dr. Venny Yang, President of CoreTech System. "Through the integration with Creo Elements/Pro, Moldex3D eDesignSYNC allows users to predict potential design blemishes and verify design changes in the early design phase. It will reduce the possibility of real molding problems at lower costs."

Moldex3D/eDesign is a suite of advanced injection molding simulation software for plastic part validation and mold optimization. It offers complete analysis functions, such as filling, packing, cooling, warpage, fiber orientation, insert molding, etc. With these integrated professional simulation capabilities, Moldex3D eDesignSYNC for Creo helps designers verify and optimize product designs with different design changes easily and efficiently. Its interface also provides better usability and utilization to every user. This release of Moldex3D eDesignSYNC for Creo is expected to benefit a wide variety of industrial users with a more flexible simulation-driven design platform to enhance their productivity and efficiency.

"We're very excited to see the new interface that allows our users to access full capabilities of Moldex3D from and within Creo Elements/Pro. Most of our customers are designing precision parts with complicated wall thickness variation. Enabling them to predict accurate mold filling and part warpage will help streamline their design process for stronger competitiveness", said Mike Campbell, DVP Creo Product Development.

Moldex3D eDesignSYNC is now available for Creo Elements/Pro. For pricing and detailed product information, please contact our local offices and resellers. Further technical information also can be found at <http://www.moldex3d.com>.

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PROSTEP Packages the Whole World Of Engineering in a 3D PDF Document

March 2011

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[PROSTEP AG](#) is setting new standards for the easy and secure communication of engineering data within companies and with partners, suppliers and customers. The basis for this achievement is provided by the recently unveiled PROSTEP PDF Generator 3D. It allows 3D models from all leading CAD systems to be combined with PDM metadata, such as product structures, material data and BOMs from ERP systems, and other engineering information in a 3D PDF document and distributed worldwide. And to do this automatically, e.g. when there is a change in status. All the recipient needs to visualize 3D models and 2D data is the normal Adobe® Reader®, which can be found on almost every computer around the world. At the same time, a multi-level security concept provides maximum protection for the content communicated in the 3D PDF documents.

PROSTEP PDF Generator 3D is the successor to Adobe LiveCycle® PDF Generator 3D ES2. Several months ago, PROSTEP took over responsibility for its further development, support and worldwide sale from Adobe System Inc. The aim of the strategic collaboration between the two companies is to firmly anchor 3D PDF technology in manufacturing industry as the ISO standard for the 3D communication and documentation of product data. An important step in this direction is the integration of the technology in a companies' PLM and ERP solutions in order to automate the availability of 3D PDF documents. To do this, PROSTEP has developed a special PDF2PLM connector that is based on OpenPDM technology.

PROSTEP PDF Generator 3D allows the server-based extraction of all types of engineering data from the respective CAD, PLM or ERP systems and the embedding of this data in 3D PDF documents. In addition, the container function allows native CAD data, Word documents, pictures and video clips to be added to these documents. Depending on the rights granted by the document owner, the contents can be visualized, copied, printed and/or annotated with Adobe Reader. "Intelligent" templates allow information to be entered into fields on forms or incorporated in dynamic bar codes so that it is automatically evaluated upon return and transferred to the backend systems.

The integration of PROSTEP PDF Generator 3D in PLM and ERP solutions, offers companies in the automotive industry and other branches of manufacturing industry a number of possible applications in various phases of the product lifecycle. PROSTEP has already developed a number of different use cases on the basis of this technology, some of which have already been implemented at customer sites (see <http://www.pdfgenerator3d.com/en/use-cases.html>). 3D PDF documents are, for example, used to communicate development data together with manufacturing dimensions and other information to the manufacturing department or external manufacturers without any need for drawings. Changes can thus be documented directly in the 3D model and coordinated with the other parties involved in the project, which shortens time-consuming, paper-based change processes. All the documents required for requests for quotes can, as it were, be embedded in "intelligent" 3D PDF documents and sent to suppliers at the push of a button. The suppliers can then enter their quotes directly in the forms thus allowing them to be evaluated automatically. It is also possible to use the 3D models for technical documentation without having to create time-consuming technical illustrations.

The use of 3D PDF technology makes an important contribution to improving and speeding up communication and decision-making processes within a company and in an extended network of companies. At the same time, it ensures tighter control of business-critical information by means of appropriate protection mechanisms. PROSTEP helps customers in every branch of manufacturing industry to identify the business processes that will most benefit from the use of 3D PDF technology.

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Spatial's 3D InterOp Suite of CAD Translation Components Provide IronCAD Users 3D Model Accessibility

28 March 2011

Spatial Corp. and [IronCAD, Inc.](#) announce that Spatial's 3D InterOp Suite provides the native CAD translators for the IronCAD Design Collaboration Suite (DCS) 2011. These native translators are packaged as a Translator Bundle allowing IronCAD users to leverage existing 3D designs regardless of the originating CAD system. The bundle is available for IRONCAD, INOVATE and IronCAD's newest product, IRONCAD DRAFT. The licensing of 3D InterOp is in addition to IronCAD's long-standing licenses of 3D ACIS® Modeler and industry standard translators for IronCAD's entire suite of design collaboration products.

“Spatial has been a key development partner of ours since the initial release of our products. Spatial's 3D ACIS Modeler and CAD translators continue to be fundamental contributors to the value we provide our users. More recently, our licensing of Spatial's 3D InterOp Suite makes high-quality native CAD translators accessible to all of our customers,” stated Dr. Tao-Yang Han, IronCAD President. “Today, CAD interoperability is fundamental to successful design collaboration and we are pleased to be working with Spatial to ensure our customers have the best-in-class set of native CAD translators.”

Spatial's 3D InterOp Suite provides high-quality import and export for popular CAD formats including CATIA V4, CATIA V5, IGES, STEP, Parasolid®, and import for SolidWorks®, Inventor®, Pro/ENGINEER®, and NX®. 3D InterOp includes post-processing functions to automatically address geometric inaccuracies inherited from the originating model. Post-processing ensures high-quality data translation for application reuse, a critical need for applications such as the IronCAD's DCS components that include functions for model manipulation.

IronCAD's newest product, IRONCAD DRAFT, provides 3D integration capabilities, enabling users to work in 2D but also to view, leverage, analyze, render and reference imported 3D model data created by suppliers, customers or colleagues. With 3D InterOp, multiple models from differing CAD systems can be imported to build assemblies, verify interferences, and communicate the 3D representation to customers using realistic rendering and animations. In addition, users can then leverage this critical 3D data in the 2D environment as a fully associative reference allowing detailing and 2D designs based on the information.

“User demand for seamless integration of 3D models into CAD workflows is driving the need for applications to provide reliable, multi-CAD, high-quality translation. We are extremely pleased that IronCAD has licensed 3D InterOp Suite for their DCS Translator Bundles to address this requirement. IronCAD's decision is recognition of Spatial's continued commitment to provide the industry's highest-quality CAD translation components,” commented Jean-Marc Guillard, Spatial Chief Operating Officer. “In addition to this recent licensing agreement, Spatial and IronCAD have been long-term development partners, with over 35,000 end-user IRONCAD seats built on Spatial's 3D ACIS Modeler and CAD translation components.”

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Solibri Introduces Solibri Model Checker v6.2

21 March 2011

Solibri, Inc. announced the release and availability of Solibri Model Checker v6.2. This release

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introduces enhanced usability, productivity tools and new capabilities in BIM quality assurance.

Innovations and features introduced in v6.2 elevate the usability of Solibri Model Checker to a new level making model checking even easier, faster and more efficient when checking either complex single design discipline models or combined multi-discipline models.

Solibri Model Checker v6.2 includes an Automated 3D Selection Box, making it possible to isolate issue 'areas', as well as individual design issues. This feature enhances and streamlines the model analysis process and workflow.

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Synopsys Announces Availability of DesignWare PHY and Embedded Memory IP for TSMC Advanced 28-nanometer Technologies

30 March 2011

Synopsys, Inc. announced that it has worked with TSMC to develop a broad portfolio of **DesignWare® interface PHY IP** including **SuperSpeed USB 3.0, USB 2.0, HDMI, PCI Express®, DDR** and **SATA** as well as **embedded memories** for TSMC's 28-nanometer (nm) process technology. The collaboration enables designers to incorporate more functionality into their advanced system-on-chips (SoCs), while meeting low power and small silicon area requirements.

As a result of this collaboration, Synopsys has achieved USB logo certification for the DesignWare USB 2.0 picoPHY IP in TSMC's 28-nm process, demonstrating a robust design architecture that can withstand rigorous process, voltage and temperature variations. In addition, the DesignWare IP portfolio of SiWare® Embedded Memory SRAMs has also achieved positive silicon results for TSMC's 28-nm process. The longstanding cooperation between the two companies has resulted in the development of DesignWare PHY IP from 180-nm to 28-nm process technologies, allowing design teams to integrate key industry standard interfaces into their designs with less risk and improved time-to-market.

"TSMC's close relationship with Synopsys through the years has provided mutual customers access to a broad portfolio of high-quality IP solutions for a wide range of TSMC processes," said Suk Lee, director of Design Infrastructure Marketing Division, at TSMC. "Our collaboration with Synopsys on the development of DesignWare PHY and Embedded Memory IP for TSMC's advanced 28-nm process is a natural extension of our successful track record, and further demonstrates our shared commitment to delivering to designers widely-used SoC functionality for their high-performance, low power mobile designs."

"Synopsys' collaboration with TSMC has helped designers cope with the challenges of incorporating advanced interfaces into their SoCs," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "By providing a broad portfolio of IP that has been silicon-proven to be robust in process, voltage and temperature variations for TSMC processes, we can continue to help customers reduce integration risk and speed their creation of differentiated SoCs."

Availability

The DesignWare PHY IP for the TSMC 28-nm process is scheduled to be available in Q2 of 2011. The DesignWare IP portfolio of SiWare Embedded Memories for the TSMC 28-nm process is available now.

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Synopsys Unveils DC Explorer for Early RTL Exploration

28 March 2011

Synopsys, Inc. introduced DC Explorer, the latest addition to the Galaxy™ Implementation platform, to significantly speed up development of high-quality design data. To meet aggressive schedules for today's massively integrated, multimillion-instance, "Gigascale" designs, engineers need an RTL exploration solution that enables them to perform what/if analyses of various design configurations – even before the design data is complete – and create a better starting point for the implementation flow. DC Explorer addresses this challenge by delivering 5X faster runtime and 10 percent timing and area correlation to DC Ultra™ RTL Synthesis. It also tolerates incomplete design data and therefore can be used very early in the design flow to guide the development of high-quality RTL and constraints, enabling a highly convergent design flow. These new productivity benefits DC Explorer delivers will be highlighted today by users at the Synopsys Users Group (SNUG™) meeting in San Jose, Calif.

"Improving productivity at the early stages of design development can significantly accelerate our IC implementation flow," said Giancarlo Sada, deputy manager of the Digital Solutions and Pilot Projects team of Central CAD and Design Solutions organization at STMicroelectronics. "We ran DC Explorer on multiple designs at various stages of development and have seen at least 4X faster runtime and 10 percent correlation to DC Ultra. This will enable our designers to efficiently assess various implementation alternatives early in the flow, tune the design data and create a highly convergent and faster design flow."

At the early RTL design development stages of today's large and complex ICs, the design data comes from multiple sources at varying levels of consistency and completeness. Engineers lack a fast and efficient way to explore and improve the data, fix design issues and create a better starting point for RTL synthesis that will lead to a highly convergent implementation flow. DC Explorer provides designers with the RTL exploration capabilities they need, helping them to efficiently identify potential design improvements and issues prior to implementation. In addition, when the input RTL, constraints and library models available are incomplete, DC Explorer generates comprehensive reports on what needs to be completed and fixed, speeding up the process of design creation. Lastly, script compatibility with Design Compiler® RTL Synthesis makes DC Explorer very easy to use and deploy into existing customer flows.

"Synopsys is continuously focused on helping our customers improve their productivity and shorten design cycles for their Gigascale system-on-chip devices," said Antun Domic, senior vice president and general manager of Synopsys' Implementation Group. "DC Explorer delivers the next significant productivity boost to IC designers, enabling them to perform RTL exploration very early in the design flow, improve the quality of their design data and significantly accelerate schedules."

Availability

DC Explorer is currently in limited customer availability.

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TraceParts 3D Catalogs Receive Autodesk Inventor 2012 Certification

29 March 2011

TraceParts announced that its 3D library of suppliers and standard parts catalogs has been certified for Autodesk Inventor 2012 3D mechanical design software through the Autodesk Inventor Certified

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Applications Program. Digital Prototyping with Autodesk Inventor software gives manufacturers the ability to digitally design, visualize and simulate how a product will work under real world conditions before it is built, which helps reduce cost and increase efficiency. Through this technical and marketing achievement, TraceParts reinforces its long-lasting partnership with Autodesk, having been a member of the worldwide Autodesk Developer Network (ADN) for 16 years.

TracePartsOnline.net 3D component library offers 100+ million 3D CAD models & 2D drawings, including both industry standard parts as well as products from hundreds of manufacturers' catalogs used by the tooling, machinery, aerospace and automotive industries. Users can browse or search for products, configure product options, create dynamic 3D previews, and insert native Inventor 3D product models directly into their designs together with their Bill of Materials (BoM) attributes.

"Engineers are far more dependent on manufactured content than ever before, and this certification demonstrates our commitment to meeting the needs of our global customers," said Jim Quanci, director of Autodesk Developer Network. "TraceParts provides easy and quick access to millions of native-format Autodesk Inventor models of the parts our customers use every day. So now, the Inventor Community can concentrate on designing and innovating new products instead of wasting time and effort modeling parts they don't manufacture."

"We are extremely pleased to be once again the first 3D Parts Library to reach the Autodesk Inventor 2012 Certification," said Gabriel Guigue, TraceParts Managing Director. "Time to market is crucial to Autodesk Inventor customers, and we know that over 80% of CAD models that mechanical designers add to their parts list are later purchased. This is why we strongly believe this Inventor 2012 certification will bring fantastic additional marketing exposure to our hundreds of 3D catalogs."

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TopSolid'Cam 2011 – A Guarantee of Exceptional Part Surfaces and Calculation Speeds

1 April 2011

[Missler Software](#) will launch the latest version of its Cam software solution, TopSolid'Cam 2011 this month. TopSolid'Cam is a Cam solution which calculates tool paths for numerically controlled machines including milling machines, lathes and machining centres. The latest version of TopSolid'Cam has many new functions for all its customers with a special focus on the tool making and the aerospace industries. TopSolid'Cam 2011 promises excellent part surface quality and unbeatable machining times thanks to such new functions as morphing, machine replacement, Z level helical machining and Z level finishing cycles.

Morphing

Morphing is a 3D operation which creates a tool path on a part (without any underdraft) from 2 curves (opened or closed). The idea is to deform the exterior curve right into the interior curve by using, where desired and/or required, intermediary curves. The resulting tool path is one continuous helical tool path that maintains scallop height as it goes. This means that there is only one entry move and one exit move. This new function in TopSolid'Cam 2011 greatly improves the surface quality of parts thanks to the use of only one tool path which stays in constant contact with the material (thereby avoiding jumps which deteriorate surface quality). 3D morphing also permits significant time gains by greatly reducing, or even eliminating, the need to polish parts.

Machine replacement

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A new wizard allows the operator to replace the machine being used with another – there are no limitations concerning the new machine or its kinematics. Any operations which are not possible on the replacement machine are inactivated.

This new function offers huge time gains for workshop managers who can, for example, replace a Mill Turn machine with a lathe or a milling machine, an underused 5 axis machine with a 3 axis machine, etc. In addition the possibility to change machine offers great flexibility to fully exploit the potential of all machines present in the workshop.

Z level helical machining

Z level helical machining allows constant contact between the tool and the material. The principal advantage of this new function is the possibility it offers to prevent “sewing marks” caused by multiple entry and exit moves. This translates into superior surface quality in parts.

Z level finishing cycles

Pockets, commonly found in aerospace parts, often have very thin and fragile walls. TopSolid’Cam 2011 allows the operator to carry out finishing operations on these walls using Z level cycles regardless of the pocket depth. Such cycles help prevent unnecessary weakening of the already thin walls and reduce significantly programming times. In addition multi-pocketing allows the automatic running of processes on faces detected and selected by the operator which enables faster machining times.

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29 March 2011

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