CIMdata

PLM Industry Summary

Christine Bennett, Editor

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Contents

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Company News

Altair's Free CAE Software Training Program Helps More Than 250 Displaced Michigan Engineers Broaden Skills, Increase Employment Marketability

26 January 2010

Altair Engineering announced that more than 250 displaced Michigan engineers have successfully completed its Professional Workforce Initiative (PWI) program. Launched in December 2008 and solely

funded and administered by Altair, the year-long program provided displaced engineering professionals with free computer-aided engineering (CAE) training and free software licenses of HyperWorks, Altair's advanced engineering simulation software suite. The program has already helped more than 10 percent of the participants obtain employment.

Altair recognized the impact of the economy on the engineering community and the need for engineers to expand their skill set to stay competitive in the job market.

"As a Michigan-based company that relies upon the retention, talent and experience of the state's engineering workforce, the PWI program provided us with a vehicle to help those negatively impacted by the economic downturn to transition into emerging and high-demand professions," said Altair Chairman and CEO James R. Scapa. "As with all philanthropic initiatives, the key to success is the passion and dedication of the people involved in their willingness to help others. This is without a doubt what our PWI team demonstrated and I personally congratulate and thank them for their hard work to make this program a success."

To date, for every 20 engineers that took advantage of the program, one participant was able to secure employment with a regional engineering firm or manufacturer, including Altair Engineering directly, as well as automotive OEMs.

"The PWI program really helped displaced workers like me refresh our skills and learn new ones to compete in the job market," said Kao Yang. "Upon completing the training courses, I began getting interviews and secured a position as a Medical Engineer with BAE Systems. I commend Altair for its generosity and corporate citizenship and feel that the training I received from the PWI program truly enabled me to stand out above other job candidates."

The Altair PWI program also inspired several engineers to return to school to pursue advanced degrees in such areas as alternative energy and information systems.

Over the course of the last 12 months, the PWI program delivered more than 50 CAE training classes that spanned modeling and visualization, linear and noise-vibration-and-harshness (NVH), crashworthiness and safety analysis, and multi-body dynamics (MBD) simulation. Degreed engineers who were displaced from their jobs in Michigan, as well as engineers who were on unpaid leave from area manufacturers that suspended operations, were eligible to participate in the program.

Click here to return to Contents

AspenTech Expands Direct Presence in Russia and CIS; Ends Reseller Agreement with Hyperion Systems Engineering

27 January 2010

Aspen Technology, Inc. announced it has ended its reseller agreement with Hyperion Systems Engineering, and expanded to an exclusively direct sales model in Russia and the Commonwealth of Independent States (CIS).

AspenTech's presence in the region continues to be managed from the company's Russian office in Moscow. AspenTech and Hyperion are working closely together to ensure a smooth transition of service to customer accounts in the region.

Supporting Quote

Antonio Pietri, Executive Vice President of Field Operations, AspenTech

“This is another step in the execution of AspenTech’s strategy to expand our presence in geographies that are experiencing growth in process industry markets. We thank Hyperion Systems Engineering for their good partnership and regional presence over the last decade. With AspenTech fully operational in the region, we can seamlessly transition to a fully direct presence in Russia and the CIS.”

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Click here to return to Contents

ATA Engineering Selected by Siemens PLM Software as Preferred North American Provider of NX Nastran and NX Response Simulation Training

28 January 2010

ATA Engineering, Inc., (ATA), a nationwide provider of high-value test- and analysis-driven mechanical engineering design solutions, recently signed a co-operative courseware development agreement with Siemens PLM Software in support of its NX™ Nastran® software.

This agreement continues a longstanding relationship between Siemens PLM Software and ATA. Under this agreement, ATA will be responsible for the development of training course materials for the NX Nastran finite element analysis software suite and the NX Response Simulation add-on module for forced response dynamics. Training materials will cover the full range of NX Nastran capabilities including: basic static analysis, basic and advanced dynamic analysis, forced dynamic response, direct matrix abstraction programming (DMAP), aeroelasticity, rotor dynamics, optimization and sensitivity analysis, and coupled structural/acoustics analysis. NX Nastran courses will be offered for both of Siemens PLM Software's simulation solutions, Femap® software and NX Simulation.

In addition to being responsible for development of this courseware, ATA has also been selected as the North American preferred provider of instructor-led courses for this material. These courses will provide hands-on instruction with the NX Nastran and NX Response Simulation software through extensive workshops that will be developed as part of the training materials.

"ATA engineers use the full range of NX Nastran capabilities to solve the most complex structural analysis problems on a daily basis. We are very proud that Siemens PLM Software has chosen to leverage this experience to develop and deliver these classes and we are excited to have the opportunity to support their customers' training needs," says Greg Antal, Manager of Simulation Training at ATA.

ATA and Siemens PLM Software offered the first series of training classes in January 2010. Classes will be scheduled quarterly.

About ATA Engineering

Headquartered in San Diego, California, with offices in Herndon, Virginia, Los Angeles, California, and Denver, Colorado, ATA Engineering, Inc., is a high-value provider of analysis- and test-driven design

solutions for structural, mechanical, electromechanical, and aerospace products. ATA's staff has been providing advanced test and analysis solutions to manufacturers of highly engineered products for more than thirty years. In particular, ATA is widely recognized as a leading provider of structural dynamics, thermal design, modal test services, vibroacoustics, and test-analysis correlation services to the aerospace community. For more information visit ATA's website at http://www.ata-e.com.

Click here to return to Contents

Autodesk Names CADD Microsystems Reseller of the Quarter for Customer Service Excellence

25 January 2010

Autodesk, Inc. has named CADD Microsystems, Inc., Reseller of the Quarter for North America for the third quarter of fiscal year 2010. Autodesk selected CADD Microsystems from more than 100 North American resellers, recognizing the company`s excellent sales performance and dedication to customer service, as well as growth of its operations and its investments in selling Autodesk software.

"CADD Microsystems is a key partner to Autodesk, serving as a trusted adviser and helping to ensure their customers get the best solution for their design needs," said Steve Blum, senior vice president, Americas sales, Autodesk. "Over the past year, CADD Microsystems has strengthened its commitment to training and education programs, resulting in a 62 percent increase in year-over-year growth. That is a huge achievement, especially in today's challenging economic climate."

CADD Microsystems' education of customers in architecture, construction, civil engineering, facilities management, GIS, mapping, visualization and government applications has enabled the company to grow its business, while helping customers enhance their competitiveness through greater efficiency and higher productivity.

CADD Microsystems training and education provide valuable, step-by-step instructions to help customers automate their businesses. The company's Quick Start program, developed in collaboration with Autodesk Consulting, offers project-focused templates that clients can use to accelerate their technology adoption.

"Our customers are our business, and we continue to focus on the business value and technical aspects of using Autodesk technology, with special emphasis on reducing the 'friction' involved in creating and exchanging modeled information," said Jeff Gravatte, chief executive officer of CADD Microsystems. "As a trusted adviser in both the government and commercial marketplace, we are able to provide added value to our customers through a team of experts with significant successful experience in exchanging building information models across disciplines and organizations."

Click here to return to Contents

Catalog Data Solutions Provides Online Catalog and PTC Pro/ENGINEER Models for 2010 FIRST® Robotics High School Teams

26 January 2010

Catalog Data Solutions Inc. (CDS) announced the availability of online CAD libraries of PTC Pro/ENGINEER models for the FIRST® (For Inspiration and Recognition of Science and Technology) 2010 high school programs: FIRST® Robotics Competition (FRC®) and FIRST ® Tech Challenge (FTC®). Pro/ENGINEER is PTC's 3D parametric CAD/CAM/CAE software. PTC has modeled the

FRC and FTC's Kit of Parts and, with CDS, made it available to the competing teams through an online CDS catalog for drag and drop download directly into Pro/ENGINEER. PTC® Pro/ENGINEER® CAD Models are available at: http://www.3dmodelspace.com/ptc

FIRST strives to engage students in grades K-12 in exciting and innovative programs designed around the use of robotics to develop science and technology skills and motivate students to pursue careers in science, technology and engineering. PTC is a sponsor and the highest level supplier - Crown level - of the FIRST Robotics Competition. PTC is also the CAD and Collaboration sponsor for FTC. In addition to Pro/ENGINEER, all participating teams have the opportunity to use Windchill® , PTC's PLM software for team collaboration, PTC's Mathcad® for creating and sharing engineering calculation, and PTC's ProductView™ for visual collaboration.

"The FIRST competition is a highly educational and inspirational experience for all participants - students, coaches, mentors, volunteers and sponsors. FIRST offers practical collaboration and product design opportunities that help to develop the skilled technology workforce of the future" said John Major, CEO of Catalog Data Solutions. "We're proud to continue our support of PTC's sponsorship by powering the FRC and FTC Pro/ENGINEER CAD Libraries with our CDS Catalog and CDS ModelServer technology. These online CAD model libraries are for the use of all competing teams and helps FIRST meet its education goals by introducing participants to real world solutions."

According to Robin Saitz, PTC senior vice president and executive sponsor for PTC's partnership with FIRST, "FIRST teams have only a few weeks to model, build and ship their robots to the regional competitions. With direct access to the FRC and FTC Kit-of-Parts CAD Libraries from within Pro/ENGINEER, FIRST students and mentors can quickly begin the process of designing a robot rather than modeling standard components. This key capability gives them the added advantage of time, allowing them to focus on the unique aspects of their design and quickly considering a number of design alternatives virtually. We are happy to work with CDS to bring these Pro/ENGINEER models to FIRST teams worldwide."

About FIRST®

Accomplished inventor Dean Kamen founded FIRST (For Inspiration and Recognition of Science and Technology) in 1989 to inspire an appreciation of science and technology in young people. Based in Manchester, N.H., FIRST designs accessible, innovative programs to build self-confidence, knowledge, and life skills while motivating young people to pursue opportunities in science, technology, and engineering. With support from three out of every five Fortune 500 companies and nearly $12 million in college scholarships, the not-for-profit organization hosts the FIRST® Robotics Competition (FRC®) and FIRST® Tech Challenge (FTC®) for high-school students, FIRST® LEGO® League (FLL®) for 9 to 14-year-olds, (9 to 16-year-olds outside the U.S. and Canada) and Junior FIRST® LEGO® League (Jr.FLL) for 6 to 9-year-olds. Gracious Professionalism™ is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. To learn more about FIRST, go to http://www.usfirst.org.

Click here to return to Contents

CEC to Resell Spatial 3D Development Components

26 January 2010

Spatial Corp. announced Computer Engineering & Consulting Ltd. (CEC), a leading Japanese provider of IT services which include software development, verification, systems integration, and IT outsourcing

for industries such as automobile and manufacturing, has become a Spatial Reseller. CEC selected Spatial to support their need to develop innovative solutions for their customers across a wide range of industries. Spatial's 3D development components, including 3D ACIS Modeler, 3D InterOp and 3D Visualization, provide the technology platform for these advanced applications.

"CEC provides a variety of services from design to manufacturing which we call 'Mono-Zukuri'. These services support manufacturing companies that have complex design requirements and manufacturing environments," stated Mr. Ryuji Nagata, Executive General Manager. "To meet our customer's needs, we must provide innovative simulation technology and infrastructure in addition to CAD and large scale visualization technology. We believe Spatial is the best partner because of their excellent products and the fact that they are aggressive in developing new technology."

CEC develops high-quality software that meets customer needs based on accumulated knowledge across a variety of industries, and utilizes best business practices combined with software development expertise. For manufacturers, CEC provides 'VR+R' services that consist of 3D modeling, visualization, and 3D simulation for logistics. CEC strives to enhance development efficiency to ensure quality, cost, delivery, and speed (QCDS).

"We are very pleased that CEC has chosen to resell Spatial's 3D development components, and utilize our technology in their application development. CEC has outstanding expertise and experiences with Japanese manufacturers and the automotive industry. These customers benefit from CEC delivering unique applications in areas such as robotics, using Spatial technology," commented Junichiro Kochi, General Manager, Spatial Asia. "We look forward to supporting CEC in their most challenging application development projects."

About Computer Engineering and Consulting, Ltd. (CEC)

CEC provides software development services in various fields such as finance, automobile industry, manufacturing, and information-communication. CEC also provides services for constructing IT platform, IT management, Outsourcing service utilizing data-centers, and Package solutions. For manufacturers, CEC provides 'VR+R' services that consist of 3D modeling, visualization, and 3D simulation for logistics. For more details, please see website: http://www.cec-ltd.co.jp/en/index.html or contact CEC by email at kouhou@cec-ltd.co.jp. or by phone at 03-5789-2442.

Click here to return to Contents

Nexpointe Strategies becomes a VizSeek Value-Added Partner

27 January 2010

VizSeek announced that it has entered into a Value-Added Partnership agreement with Nexpointe Strategies, a central Indiana firm specializing in helping government and original equipment manufacturers (OEMs) connect to small- and medium-size suppliers and manufacturers.

Under the partnership with VizSeek, Nexpointe will sell all VizSeek products and, most importantly, VizSeek's online industrial networking platform, VizSpace, to OEMs who will be able to use VizSpace's shape search technology and membership of thousands of suppliers to save time and money spent in procurement.

More information on VizSeek and its products is available at www.vizseek.com.

Click here to return to Contents

Think3 launches 'International VAR Organization' to Follow Indirect Sales Channel

27 January 2010

Think3, the global provider of CAD and PLM solutions, has launched the new International VAR Organization for building, growing and supporting the Indirect Sales Network worldwide. The new Organization will be responsible for think3's MCAD and PLM indirect sales activity in Europe, the Americas and the rest of the world (excluding Italy, Japan, China and India where the company has its own direct subsidiaries).

The new Organization, headquartered in the US and Europe, will be led by Massimo Signani, Head of the International VAR Organization, with over 24 years at think3 and an extensive record having held various positions in the company, and Wolfgang Weiss, Technical Manager, who has been involved in some of the most important projects of think3.

The newly-formed division will support reseller activities, develop a common 'VAR team' that jointly defines, develops and launches initiatives via think3's VARs network, and hire and train new channel partners. The Task Force will be devoted to increase customer satisfaction, customer intimacy and to promote CAD and PLM solutions 'that work.'

"We have decided to entrust the International VAR Organization to think3 'veterans,' with years of experience in the company, to guarantee the maximum continuity of service," **s**tates Silvano Joly, Vice President, Sales and Worldwide Marketing at think3. "Think3 can be considered the 'welcome outsider' by VARs as we have uniquely positioned solutions that cover the entire process of product development and represent a valid, competitive alternative in the market for performance and positioning. One of the first results of the International VAR Organization is the partnership with Erik Buell Racing, recently announced, which is tasked with supporting Erik's team to develop their business and find success fast."

To view the think3 world-wide VAR network:

www.think3.com/en/company/company-profile/var

To contact think3, write to var@think3.com or phone the headquarters at +39 051.597111.

Click here to return to Contents

Winners of ZWCAD Design Contest 2010 to Get Free ZWCAD & iPod

27 January 2010

ZWCAD Software Co., Ltd. ("ZWSOFT"), celebrates the release of ZWCAD™ 2010 by launching the second annual design contest from January 12 to April 25, 2010.

The theme of the contest is "Design the Future." Design anything that might exist in the year 2015 or thereafter. The design can be of a spacecraft, a conceptual cooking kit, a magnificent stadium, a remarkable power piping/plumbing system, or an elegant interior design.

Whatever field it is in -- architecture, engineering, construction or manufacturing – but the design must be created with ZWCAD. Winner prizes include iPod Touch, iPod Nanos and ZWCAD 2010 licenses. In addition, ZWSOFT has a random draw for all participants in the contest. Anyone who downloads ZWCAD 2010 or votes for entries during the contest period will have a chance to win a license for ZWCAD 2010.

The winners will be announced after April 25, 2010.

More details and to join the contest are available at http://www.zwcad.org/DC2010 where you can download a 30-day free trial version of ZWCAD 2010.

Click here to return to Contents

Events News

Apache Design Solutions to Participate at the Electronic Design and Solutions Fair 2010

26 January 2010

Apache Design Solutions announced that the company will be participating at the upcoming Electronic Design and Solution Fair 2010 (EDSFair2010) in Yokohama, Japan, January 28-29, 2010. Apache Design Solutions will be demonstrating the company's comprehensive power and noise solutions from RTL to silicon, digital to analog, and chip to package and system, in stand #405.

Who: Apache Design Solutions

What: Electronic Design and Solution Fair 2010

Where: Pacifico Yokohama Exhibition Hall, Stand #405.

When: Thursday, January 28 & Friday, January 29, 2010, 10:00AM to 6:00PM

Apache's General Manager and Senior Vice President of RTL Business Unit, Vic Kulkarni will also be presenting at the Low Power Design Session that will highlight current and future low power design issues and the available solutions and techniques.

What: Session 4 | Low Power Design Session

Where: Pacifico Yokohama Exhibition Hall, Special Presentation Stage

When: Friday, January 29, 2010, 11:50 am – 12:50 pm

For more information about EDSFair2010, please visit http://www.edsfair.com/e/.

Click here to return to Contents

Chip-Package-Systems Convergence Workshop to be Held at DesignCon 2010

26 January 2010

Apache Design Solutions is sponsoring a workshop at **DesignCon 2010** to facilitate industry-wide discussion on the challenges, methodologies, and techniques required for chip-package-systems (CPS) convergence. The workshop, entitled "Practical Methodologies for Power/Signal Integrity of Chip-Package-Board Designs," will be held from 9am to noon on Thursday, February 4th in the Santa Clara Convention Center.

As technologies evolve to meet performance, area, and cost demands, designers are faced with several challenges that are becoming increasingly critical to the success of IC and system designs. To address these chip-package-board challenges requires integrated analysis and verification solutions but there is a lack of tools and methodologies available in the industry today.

In this workshop, representatives from key semiconductor and system design companies will come together to discuss their understanding of power and signal integrity challenges across the global system.

They will share their insights on techniques and practical methods the industry is using to address the CPS requirements and what vendors can do to develop and deliver solutions that meet their needs. The workshop will drive an open forum for semiconductor and system companies to exchange ideas and information that will help define the contents of future technologies for chip and package modeling and system level verification for power and signal integrity.

As Larry Smith, signal and power integrity architect from Altera Corporation, says, "PDN design and performance is a system-level problem involving the die, package, and PCB. The industry is in need of tools and concepts to address this challenging issue. We appreciate Apache taking the initiative to drive and facilitate this forum for discussion at DesignCon."

"The Practical Methodologies for Power/Signal Integrity of Chip-Package-Board Designs workshop in this year's program is representative of the overall objective of the DesignCon event, which spans the electronic design disciplines from the chip through boards and systems," commented DesignCon program director Barry Sullivan. "We look forward to the unique take each participant will share with the DesignCon audience next month."

For additional detail, or to listen to a podcast preview, please go to
http://www.designcon.com/2010/attendees/th_th1/index.asp

Apache Design is offering a free Exhibits PLUS pass to DesignCon (which allows entry to the exhibition, keynote addresses, technical panels, business forum sessions, and more) to workshop attendees. For more information, see http://www.apache-da.com/apache-da/Home/NewsandEvents/Events.html

Click here to return to Contents

Configure One Announces New Integration to Create and Manage Configurator Rules Within SolidWorks

25 January 2010

Configure One™ announced the availability of its redesigned integration to SolidWorks. The new integration includes a Concept™ embedded window directly inside SolidWorks, and will be showcased at SolidWorks World 2010 to be held at the Anaheim Convention Center, CA. January 31 - February 3, 2010.

Configure One will demonstrate the Concept Add-In for SolidWorks at its booth (314) in the Partner Pavilion during SolidWorks World 2010 User Conference and Exposition. By automating the configuration process, Configure One's product configurator software allows engineers to spend more time designing new products rather than creating sales drawings or doing mundane order processing work. The Concept Add-In for SolidWorks is a fully integrated application that allows configurator administrative users to define and maintain SolidWorks-related configurator rules. Unique to the configurator industry, this Add-In communicates bi-directionally with the Concept server component to allow users to define rules that manipulate SolidWorks assemblies, parts, and drawings. With Configure One's Concept Enterprise Product Configurator® and SolidWorks, companies can efficiently sell and process orders for configurable, multi-option, and customizable products.

About Configure One

Configure One is a leading provider of web-based product configurator and electronic catalog software. Configure One's Concept Enterprise Product Configurator®, Concept E-Catalog®, and Concept E-Commerce® products are enterprise applications that enable companies to efficiently sell and process

orders for configurable, multi-option, and customizable products and services. Customers include industry leaders such as ABB, Emerson Electric, British Telecom, Danaher, Dover Corporation, Stryker Medical, Sumitomo, and Thomas & Betts.

Click here to return to Contents

Datafrond is a Featured Exhibitor and Presenter at the PTC User Conference

January 2010

Planning on attending PTC/USER World Event 2010? As a featured exhibitor, Datafrond would like to invite you to visit them at the PTC/USER World Event 2010 taking place at the Rosen Shingle Creek Hotel, June 6-9, Orlando, Florida. This is the premier conference event for PLM professionals who use PTC products and services (Arbortext®, CoCreate®, Mathcad®, Pro/ENGINEER®, ProductView™ and Windchill®).

Stop by ***booth #407*** during conference hours to meet the Datafrond team and learn more about our latest products and services and for a chance to win a free conference gift. Click **Here** to register for the gift and to receive a complementary Datafrond Team shirt. Complete the form and pick your shirt at our booth.

Haven't registered yet for PTC-User 2010? Click **Here** to register.

Click here to return to Contents

Delcam and AmTTech Partner for Texas FeatureCAM Training

26 January 2010

Delcam and Associated Machine Tool Technologies (AmTTech), the exclusive distributor for Doosan Infracore machines in Texas, have partnered to provide local training to FeatureCAM users in the Houston area.

"Delcam has the largest development team in the CAM industry. We have continued with a high level of R & D investment during the current downturn, so we have a constant stream of new innovations in our programs," explained Delcam North America President, Glenn McMinn. "We feel that it is essential to hold regular events to ensure our customers are aware of these new developments so that they can gain the maximum benefit from their software. We are extremely pleased that AmiTTech have partnered with us so we can provide this service to our large number of users in the Texas area."

Classes will be held from 9 am to 5 pm between Monday March 1st and Friday March 5th. Basic training on FeatureTURN is scheduled for Monday March 1st and Tuesday March 2nd. Basic training on FeatureMILL including 2.5D Milling, FeatureRECOGNITION and 4th Axis Milling is scheduled for Wednesday March 3rd and FeatureTURN/MILL including Turning and Live Tool Milling is scheduled on Thursday March 4th and Friday March 5th.

Commenting on the training Jan Johnson, the newly appointed Delcam representative for Texas, said, "I am so glad that we were able to team up with AmTTech for this upcoming FeatureCAM training. People will be able to bring their part files and we will be able to show them new techniques and features in FeatureCAM 2010. Even experienced users can learn how they can increase their productivity and experience the highest ROI possible from their software and machine tools."

For more information on the training classes or to sign up, please contact Barry Harris training@featurecam.com 419.887.1800

For more details on Associated Machine Tool Technologies visit their website www.amttech.net or call 832.912.2000

Click here to return to Contents

Delcam to Launch 64-Bit PowerMILL at WESTEC

27 January 2010

Delcam will launch the 64-bit version of its PowerMILL CAM software at the WESTEC exhibition to be held in Los Angeles from 23rd to 25th March. 64-bit technology removes the memory limitations of 32-bit computers so allowing more efficient toolpath generation, especially for companies machining large or complex parts.

The new 2010 release also continues to improve user productivity by extending the application of the latest background-processing and multi-threading technologies available in recent hardware. The combination of these two developments is estimated to reduce calculation times by up to 25%, although this will depend on the size and complexity of the part.

PowerMILL 2010 also includes more than 50 other major enhancements. This is the largest number in a single release for over five years and reflects the continued high levels of investment in product development at Delcam. These improvements allow faster and easier generation of highly-efficient toolpaths for three- through five-axis milling.

The most obvious change for existing users will be an updating of all the toolpath-creation forms to a new and improved layout. The forms make it easier for new users to find the commands they need, while also giving experienced operators more logical access to the more advanced options. In addition, there is new toolbar that can be pinned to the opening screen for the creation and editing of workplanes.

A new series of strategies for roughing and finishing corners has been added. These give more efficient and smoother clearance of these areas, especially when a large tool has been used for roughing initially that has left a significant amount of material in the corner.

Rest roughing has been enhanced to give better control over the start points for each segment of the toolpath. This will give substantial savings in overall machining time by minimising any air cutting.

Offset roughing, a popular approach for high-speed machining, has been enhanced so any thin slivers of material can be removed without risking damage to the cutter. These slivers can be left for the final pass when a constant stepover is used for the offset. PowerMILL will now identify these potential problems automatically and adjust the final stepover to give the safest engagement with the material.

A number of improvements have been made to give smoother toolpaths for semi-finishing and finishing. These minimise the stresses put on the cutter and machine tool, and result in a better surface finish. They are related to Delcam's patented Race-Line strategies for roughing and act in a similar way across the full extent of the toolpath. For example, sharp changes in direction in 3D-offset toolpaths are now automatically made much smoother as the tool approaches and leaves, rather than simply introducing an arc at the point of change.

In a related development, more options have been added to the collision avoidance functionality to give more control over the direction chosen by the software to avoid the problem. These are particularly

useful in any areas where there might be a sudden change in direction. In addition, the ability to specify a look-ahead distance has been added to the collision avoidance capability in order to ensure a smooth transition when tool-axis changes are required.

Constant-Z toolpaths have been enhanced to include automatic detection of flat areas that would benefit from an alternative strategy. In addition, a filter has been added to remove small enclosed segments from the toolpath as these can damage the cutter. The "Steep and Shallow" machining combination strategy uses these latest additions for the steep sections and a range of new options have been added for the shallow areas.

Finally, a new option has been added for all toolpaths that specifies the safe profile of the toolholder. This provides a warning if the toolholder shape extends outside this area in ways that may cause a gouge or collision.

Click here to return to Contents

Delcam's ArtCAM 2010 has New Interface to Boost Productivity

28 January 2010

Delcam has launched new versions of its ArtCAM family of software for artistic applications. The range comprises the entry-level version, ArtCAM Express for users new to CNC machining, ArtCAM Insignia for production machining and ArtCAM Pro for more complex design and manufacturing, plus the ArtCAM JewelSmith edition for the jewellery industry. All of the 2010 range will feature a completely new interface that can be customised by the user to give them the optimum productivity.

The new release will be demonstrated in a series of webinars for the major industries using ArtCAM later this month. Demonstrations for engravers will take place on 16th February, for creators of themed environments, such as retail displays and film props, on 18th, for signmakers on 23rd, and for jewellers on 25th. Five webinars will take place on each day. Full details are at: - www.artcam.com/promos/2010_Webexes/ArtCAM2010_Demo_Information.htm

"The ArtCAM family is used in a wide variety of industries, which has necessitated the incorporation of a large number of alternative methods to design and manufacture decorative items," explained ArtCAM Development Manager Edward Powell. "Our old interface gave equal status to all of these options, even though few of our users needed access to all of the tools. The result was an overly complex system requiring several clicks of the mouse to reach the required command."

In the new release, the interface is fully customisable, meaning the every user can set up the software to give quicker access to the commands that they use most frequently. Similarly, commands that are rarely used can be hidden from the initial menu choices. This releases much more of the screen for visualisation of the model as the design progresses.

Another change that will increase productivity is the ability to use many more commands on the 3D model directly. Previously, much of ArtCAM's modelling had to be carried out on a 2D view, and then calculated and visualised in 3D. Direct editing in the 3D window will give more immediate feedback, and so allow faster creation and modification of designs.

Further improvements have been made to the sculpting tools, following the major simplification of these options in ArtCAM 2009. These tools have always been valued by the most creative users as they can be used to produce virtually any shape. They duplicate in the virtual world the ability to sculpt physical materials but with the added advantage that material can be added as well as taken away.

On the machining side, a great deal of underlying technology has been incorporated into ArtCAM from Delcam's engineering CAM system, PowerMILL. This has enabled the inclusion of the latest multi-threading technology and so given faster calculation times. It has also given users greater flexibility to edit toolpaths, in particular to optimise the leads and links.

Within ArtCAM Insignia and ArtCAM Pro, more automation has been introduced when machining designs imported as layered DXF or pdf files from other CAD systems. Using Toolpath Templates, previously defined machining strategies, cutting tools and machining parameters can be applied to named layers within the imported file, using a single click. The layer structure is also preserved when a design is copied or even after it has been automatically nested to minimise material wastage. This means that the same Toolpath Template can be applied to all the copies simultaneously, dramatically reducing the time required to machine complex layouts with multiple, optimised, toolpath strategies.

New machining options include a new combination technique of roughing with an end-mill coupled with V-bit carving. This gives the advantage of faster material removal with the end-mill, while retaining the finish quality that is possible with a V-bit cutter.

A "raised-round" command can now generate this machining option directly from vector artwork. This technique will be especially valuable for producing foiling and embossing dies that include lettering in their design.

Finally, machining simulations have been made more flexible by adding the ability to change the view during the simulation. This makes it easier to check the quality and accuracy of the toolpaths on the computer before they are sent to the machine.

Click here to return to Contents

FEA Software Innovator to Unveil NEi Works™ 2.1 at SolidWorks® World 2010 in Anaheim CA

25 January 2010

Following the successful introduction of NEi Works™ in 2004, NEi Software will unveil the next generation of the product at SolidWorks® World 2010 in Anaheim, CA. NEi Works 2.1 includes enhancements and additional features that address a segment of the SolidWorks community that requires Nastran for Finite Element Analysis (FEA) solutions.

NEi Software CEO, David Weinberg, will be available as the company demonstrates the enhancements and new features of NEi Works including new post-processing features, usability enhancements, optimization as well as new types of analysis, elements, and loads. A full **list of enhancements can be obtained at booth #633** or during the company's **presentation** at the SolidWorks World 2010 Certified Partner Theater on **February 1st from 7:45 - 8:00 PM.**

NEi Works 2.1 is embedded in SolidWorks and has Gold Product status, a designation awarded by SolidWorks Corporation for products that pass its tests for quality and compatible integration. NEi Works is important to product developers in a wide range of industries because it relies on NEi Nastran solvers and incorporates a number of advanced simulation technologies.

Click here to return to Contents

GibbsCAM 2010 to be demonstrated at SolidWorks World 2010

27 January 2010

Gibbs and Associates announced that GibbsCAM 2010 will be demonstrated at Booth #115 during the SolidWorks World 2010 Conference. The conference is being held from January 31 - February 3, 2010, at the Anaheim Convention Center in Anaheim, CA. This marks the twelfth consecutive year that Gibbs and Associates has participated at SolidWorks World.

The demonstrations will include GibbsCAM 2010's new feature enhancements along with GibbsCAM's interoperability with SolidWorks 2010 allowing users to go "from model to metal in minutes." GibbsCAM, a SolidWorks Certified CAM Product, is able to work with SolidWorks designs in a number of different ways ensuring seamless interoperability between the two applications. The SolidWorks-to-GibbsCAM transfer add-in allows models to be directly transferred with a single menu selection within a SolidWorks session to GibbsCAM for NC programming.

Key Enhancements to Solids Machining

New, More Capable Plunge Roughing – Integrated into the software, with the ability to calculate material removal strategies that accommodate carbide-inserted drills, which require special motion for no-drag retractions, while avoiding collision in tight or narrow areas.

Enhancements to Advanced 3D Machining – These include the addition of Hit Flats with specified tools for Pocketing, the ability to specify flatness tolerance in Flats Cut to ensure all desired "flat" areas are machined, locking high feed rate for Shortest Route and Minimal Vertical retract styles, addition of Trim to Ramp Advance as a Contour option for waterline cuts, specifying surface finish with step-over distance or scallop height parameters, and using Stock Bounding Box as an additional machining boundary.

Addition of Option for Stock – Facet bodies, generated from a previous machining process, or brought in through a data file, can now be used as initial stock in solid pocketing.

64-bit Implementation

A significant development, the 64-bit implementation allows taking advantage of the more powerful, multi-processor PCs equipped with 4GB or more of RAM. This provides tighter interoperability with 64-bit CAD systems that are co-resident with GibbsCAM on a PC. Also, 64-bit operation reduces computation time when processing extremely long programs or working with complex geometry. It will also enable users to take advantage of system enhancements when running under the Windows 7 operating system.

With these capabilities, SolidWorks parts can be manufactured without fear of losing valuable geometric information. In addition, GibbsCAM's associativity accommodates design revisions, an everyday occurrence in the design/manufacturing process. SolidWorks users who need to machine their parts will find that GibbsCAM is a simple and powerful solution. Going from model to metal just doesn't get any easier.

For more information about GibbsCAM and the GibbsCAM 2010 release, or to locate your local GibbsCAM reseller, go to www.GibbsCAM.com, call 1-800-654-9399, or email info@GibbsCAM.com.

Click here to return to Contents

SURFCAM V5 to Debut at SolidWorks World 2010

26 January 2010

Surfware, Inc. announced that the upcoming release of its flagship product, SURFCAM V5, will debut in booth 335 at SolidWorks World 2010 in Anaheim, CA.

"SURFCAM has been a certified SolidWorks CAM partner for over 5 years and this is a continuing relationship which we at Surfware are quite proud of," says Peter Marton, General Manager of Surfware,

Inc. “Now, with the release of SURFCAM V5, our SolidWorks customers will have even more new features and functionality, giving them world class precision and control over their NC programming environment with their SolidWorks data.”

SURFCAM’s associativity enables our users to open native SolidWorks files directly into SURFCAM, completely eliminating the translation process. SURFCAM automatically recognizes any design revisions in the solid model and offers to regenerate only affected toolpaths. With this interoperability, SURFCAM users can quickly adapt to design changes.

“Our SolidWorks users and customers require a high degree of freedom and flexibility, designing in SolidWorks allows users to make design changes with confidence. Because of SURFCAM’s seamless associativity to their SolidWorks files, users enjoy not only increased productivity, but flexibility as well,” said Marton.

SURFCAM V5 includes many new features and added functionality to 4- and 5-axis roughing toolpaths as well as an enhanced Operations Manager, Cview visualization, 3-axis Z-roughing and upgrades to the lathe package. In addition to these upgrades are substantial updates to both 2- and 3-axis TrueMill toolpaths.

SURFCAM V5 supports SolidWorks 2010 parts, assemblies, sketches and configurations.

The event will take place at the Anaheim Convention Center and last from January 31 to February 3, 2010.

Click here to return to Contents

Synopsys Showcases Silicon-Proven DesignWare IP Solutions for SuperSpeed USB 3.0, DDR and PCI Express at DesignCon 2010

28 January 2010

Synopsys, Inc. will be demonstrating its DesignWare® IP solutions for SuperSpeed USB 3.0, DDR and PCI Express® 3.0 at DesignCon 2010 in Santa Clara, California on February 2-3, 2010.

DesignCon® is the definitive event for electronic design experts spanning chip, package, board, and system domains, addressing common issues in signal integrity, power management, interconnection, and design verification.

What: Synopsys will be showcasing its latest developments in the DesignWare SuperSpeed USB 3.0 and DDR IP in Synopsys Booth #216. The DesignWare IP for PCI Express 3.0 will be shown in the LeCroy Booth #109. In addition, Synopsys will be participating in a number of presentations, tutorials and panels at the show.

When: February 2-3, 2010

Where: Santa Clara Convention, 5001 Great America Pkwy., Santa Clara, CA 95054

Exhibit Hours:

Tuesday, February 2 12:30pm - 6:30pm
Wednesday, February 3 12:30pm - 6:30pm

Synopsys Highlights at DesignCon:

DesignWare IP Booth #216

-- Synopsys Demonstrates SuperSpeed USB 3.0 Interoperability
This demonstration shows proven interoperability of Synopsys' DesignWare USB 3.0 PHY with the DesignWare USB 3.0 host and device controllers implemented in FPGAs. View a high-definition video running at hundreds of megabytes per second.

--Synopsys DDR3 Memory Controller Test Chips Operating at 1600 Mbps
Witness full-speed write and read data eyes up to 1600 Mbps, automatic process, voltage and temperature (PVT) drift compensation, internal data eye width measurements, clock jitter measurements and the capabilities within the DDR IP.

LeCroy Booth #109

--Bridging the Gap between simulation and hardware debug using DesignWare PCI Express Verification IP and LeCroy's SimPASS PE
The demo will utilize the LeCroy's SimPASS PE protocol application to display and analyze the PCI Express 3.0 traffic generated by the DesignWare PCI Express Verification IP when verifying a design. See how SimPASS enables you to eliminate potential flaws in the data and transaction packets from the I/O stream, allowing developers to more thoroughly test and debug the logic design prior to going into silicon.

Presentations, Panels and Tutorials:

- Presentation: Interconnect Considerations for DDR Timing Closure beyond 1600 Mbps
- Business Forum Panel: The Last Mile: Outsourcing Production
- Tutorial: Best Practices for IP Re-Use
- Tutorial: Top System-On-a-Chip Power Management Verification Issues and Their Solutions
- Tutorial: Functional Verification Planning and Management for Designers: Navigating From Specification to Functional Closure
- Panel: Extent of Dynamic Validation in Power Managed Designs

6-WA4 Interconnect Considerations for DDR Timing Closure beyond 1600 Mbps

Wednesday, February 3 | 11:00 am - 11:40 am

Speaker: John Ellis, Senior Staff R&D Engineer, Synopsys, Inc.

JEDEC's DDR3 standard supporting 2133 Mbps will make closing timing extremely challenging. Implementers will have to scrutinize timing budgets in order to close timing. Deskew silicon technology will no longer be optional. For successful timing closure, signaling effects once considered secondary will now claim a significant portion of the timing budget. By definition, DDR3 introduces skew into timing budgets by capturing single ended data signals with differential strobes. Signaling effects such as modal dispersion and crosstalk timing impacts now must be addressed with care. Use of microstrip on

printed circuit boards must be considered more cautiously as this can be a significant source of signal skew if not managed carefully.

BF-T3 | Business Forum Panel - The Last Mile: Outsourcing Production

Tuesday, February 2 | 2:00 pm - 3:30 pm

Chairperson: Ron Wilson, Executive Editor, EDN Worldwide

Speakers: John Koeter, Vice President of Marketing, Solution Group, Synopsys; Kalar Rajendiran Sr. Director, Marketing, eSilicon; Todd Oseth, President and CEO, Neterion, Inc.; Bob Quinn, Founder, Chairman and CTO, 3Leaf Systems; Brad Paulsen Vice President, Business Management, TSMC

Continuous cost-down pressure characterizes the semiconductor market and is the driver behind the industry's dis-aggregated infrastructure. In the 70's, we outsourced packaging and test; in the early 80's, EDA; in the late 80's, wafers; and in the early to mid 90's, we outsourced IP and front-end design services.

Is there another opportunity to outsource? Operations is the next semiconductor value chain link that will be outsourced by leading edge industry thinkers to maximize "return-on-design," reduce overhead costs, and drive profits to the bottom line.

Who will benefit? Whether a small semiconductor company or the IC division of a large systems company seeking to alleviate the need for temporary technical help; or larger companies looking to permanently slash overhead and reinvest resources in core competencies, operations outsourcing is the next dis-aggregation trend that will further business success.

TF-MP6 | Tutorial - Best Practices for IP Re-Use

Monday, February 1 | 9:00 am - 12:00 pm

Chairperson: Warren Savage, President and CEO, IPextreme, and GSA IP Working Group Chair

The licensing and use of Semiconductor Intellectual Property is a key element of the semiconductor industry today. Yet, customers and suppliers alike still complain that the business model is broken and quality remains a significant impediment to the health of the industry.

Leaders from the Global Semiconductor Alliance (GSA) IP Working Group will offer a tutorial regarding the common challenges facing IP reuse today and best practices and resources that are available to companies today from the GSA. Among the topics:

- Metrics and tools available for quantifying the quality of IP
- Making a Return-on-Investment calculation for buying or making IP
- Best practices and norms on legal contracts
- Best practices for documenting IP

TF-MA10 | Tutorial - Top System-On-a-Chip Power Management Verification Issues and Their Solutions

Monday, February 1 | 9:00 am - 12:00 pm

Speakers: Bhanu Kapoor, Consultant/Owner, Mimasic; Dr. Shireesh Verma, Verification Manager, Conexant; Shankar Hemmady, Principal Engineer, Synopsys; Dr. Kaushik Roy, Professor, Purdue University; Amit Kumar, Senior Program Manager, SiRF Technologies

Power consumption has become one of the most important differentiating factors for semiconductor products. Voltage is the strongest handle for managing chip power consumption. We look in detail at some of key power management techniques such as Power Gating, Adaptive Voltage Scaling and Active Body-Bias that leverage voltage as a handle.

We discuss the implications of power management architecture design, partitioning and new challenges in functional validation. We look at top power management verification issues such as reset out of wake-up, power connectivity, always-on buffers, switching management, state retention and sequencing protocol, and decap placement issues in detail.

TF-MP1 | Tutorial-Functional Verification Planning and Management for Designers: Navigating From Specification to Functional Closure

Monday, February 1 | 1:30 pm - 4:30 pm

Speakers: Andrew Piziali, Independent Consultant, Association of Design Verification Engineers; Avi Ziv, Research Staff Member, IBM; Shankar Hemmady, Principal Engineer, Synopsys

This tutorial teaches state-of-the-art techniques and methodologies that are used in the industry today for planning, monitoring and assessing verification progress. Planning, monitoring and assessment of the verification process are essential for predictable, successful verification. Quantifying the scope of the verification problem, specifying its solution and measuring verification progress against this plan dramatically reduces schedule uncertainty and provides an adaptive framework for accommodating design and schedule changes. This planning process provides the information necessary to predict the state of the verification process for risk analysis and management. Overall, good planning, monitoring and assessment prevent late schedule and quality surprises.

TP-T3 | Technical Panel - Extent of Dynamic Validation in Power Managed Designs

Tuesday, February 2 | 3:45 pm - 5:00 pm

Chairperson: Bhanu Kapoor, President and Founder, Mimasic

Speakers: Ed Sperling, Editor in Chief, System-Level Design and Editorial Director, Low-Power Engineering; Dr. John Goodenough, Director, Design Technology, ARM; Prapanna Tiwari, Corporate Applications Engineer, Synopsys; Amit Kumar, Senior Program Manager, SiRF Technologies;

This panel looks into the new challenges in validation of designs using above mentioned power management techniques. Some of the initial techniques focused on structural checking of power management issues combined with limited amount of simulation using methods like x-injection. More recent advances are resulting in enhancement of simulators to induce effects of power gating, state retention, power sequencing, and voltage changes.

There exists data from power managed designs that points to structural checkers as the central tool for validation of large class of issues power management issues even including issues such as incorrect reset on wake-up.

To what extent do we need dynamic simulation to validate power management issues? Does power management validation significantly increase the amount of simulation needed to validate the design or is it only incremental when combined with smart structural checkers? Also, what is the right level of abstraction at which dynamic simulation should be carried out?

Click here to return to Contents

Synopsys Offers Designers Many Opportunities for Design Success at EDSFair

28 January 2010

Synopsys, Inc. announced that more than 1000 design engineers have registered to attend pre-registration-required Synopsys events at the Electronic Design and Solution Fair (EDSFair 2010) in Yokohama, Japan. These numbers represent a significant increase in registration over last year. Through many events including these, Synopsys will provide attendees with opportunities to learn about the latest technology developments in the software to silicon arena. Events include product and solution demonstrations in the booth and suite, customer and Synopsys presentations at the booth theater, technical sessions at Synopsys' PrimeTime® Special Interest Group (SIG) event and EDSFair Exhibitor Seminar, a panel discussion at the EDSFair Special Stage and support of the IPL Alliance booth, The EDSFair is to be held January 28 to 29 at the Pacifico Yokohama Convention Complex.

"Technical community events such as customer sessions at our booth theater and the EDSFair Special Stage are a valuable way for design engineers to learn about the latest trends in state-of-the-art design technology and share experiences and new ideas with other members of the community," said Kimio Fujii, president of Nihon Synopsys G.K. "Our customers want to collaborate with us to improve the quality and productivity of their designs. The events provide a mechanism to not only exchange practical and advanced approaches in the design community but also to get end-user feedback that can have high impact on our product development efforts."

In the Synopsys' booth (#001), 13 demo tables will showcase Synopsys' comprehensive solution, including the Galaxy™ Implementation Platform, Discovery™ Verification Platform, Eclypse™ Low Power Solution, Software-to-Silicon verification solution, FPGA and high-level synthesis solutions, DesignWare® IP solutions, manufacturing and TCAD solutions and the Lynx™ Design System. Details on these solutions and the newest technology can been seen in the Synopsys suite. At the theater in the booth, nine major semiconductor and system companies will talk about their advanced design experience using Synopsys tools and solutions. In addition, Synopsys will present three new solutions including Synphony high-level synthesis, the Galaxy Custom Designer™ implementation solution and an optimized solution for 32-/28-nanometer (nm) mobile system-on-chip (SoC) designs. Synopsys will also have 12 technical sessions at the EDSFair Exhibitor Seminar and will host a PrimeTime SIG event to drive an active community for all PrimeTime users and design engineers who want to stay connected with the latest static timing analysis (STA) developments. In a panel discussion at the EDSFair Special Stage, George Zafiropoulos, vice president of Solutions Marketing at Synopsys, will highlight the Eclypse Low Power Solution, which can address the requirements of STRJ (Semiconductor Technology Roadmap committee of Japan) and JEITA (Japan Electronics and Information Technology Industries Association). Furthermore, Synopsys will support the IPL Alliance booth (#302) to contribute

interoperability enhancements for process design kits based on the OpenAccess database.

“Collaboration is a great way for the design community to address the increasing challenges of advanced semiconductor design,” continued Fujii. “At EDSFair, several of our customers will share their advanced design experiences using our solutions. Our advanced technologies enable engineers to solve complex design challenges and achieve their time-to-market goals. Some of the technologies that will be discussed include IC Compiler Zroute, multi-corner/multi-mode (MCMM), In-Design Rail Analysis and Physical Verification, the VMM-LP low power verification methodology, PrimeTime advanced on-chip variation and HAPS high-performance ASIC rapid prototyping capabilities.”

 *Click here to return to Contents*

Financial News

AVEVA Interim Management Statement

25 January 2010

AVEVA Group plc announced the following Interim Management Statement for the period from 1 October to date.

Since the announcement of the Interim Results in November 2009, the Group's performance has been satisfactory and the Board is confident of the outturn for the year.

We continue to make progress in the Oil, Gas and Power markets which have been resilient across our geographies. These segments are benefiting from ongoing projects and demand from new economies where resource finds are driving new sales. In particular, Brazil remains a high growth area for us where we see continued opportunity within the Oil and Gas market. As a result we continue to invest in office expansion and people to support the needs of our local customers in this area. As anticipated, the Marine market has continued to suffer from recent economic events.

AVEVA NET continues to benefit from sales to customers looking to improve the management of plant data to increase efficiency of maintenance, revamp and health and safety requirements.

The Group has a strong balance sheet with net cash and continues to be cash generative.

Richard Longdon, Chief Executive, said: "Although some uncertainty remains in our underlying markets we continue to make investments in both expanding our geographical presence and product enhancements to ensure that AVEVA benefits from both short and long-term opportunities."

The Group will be announcing the preliminary results for the year ending 31 March 2010 at the end of May 2010.

 *Click here to return to Contents*

Comet Solutions Closes $2 Million Series B Round; Expanding Customer/Marketing Activities and Commitment to Ohio

12 January 2010

Comet Solutions™, Inc. announced the closing of a $2 million series B round of investment led by Athenian Venture Partners together with Tri-State Growth Capital Fund and Kentucky Co-Investment Partners. The new investors join series A investors, which include Flywheel Ventures, ITU Ventures and

New Mexico Co-Investment Partners, to provide capital essential to expanding resources and activities in sales, marketing and customer support.

Dan Meyer, President and CEO of Comet Solutions, Inc. states, "Our success securing high quality funding in these brutal capital markets is testimony to the strength of our team, product and customer implementations. With new capital, we can build on recent sales successes in the aerospace/defense and off-highway sectors and expand our reach to engineering leaders. To accomplish this, we are adding more industry veterans to the team who understand the issues facing engineering departments eager to bring simulation earlier in the design cycle. We are also intensifying the go-to-market efforts we have with current channel partners in order to realize our potential in the market."

Mr. Meyer adds, "Expanding our base of investors provides the financial backing to ensure we are here to support our customers for the long-term and will continue to invest in innovative solutions for simulation-driven product development which wow our customers."

"Unique technology in Comet software breaks down the barriers between a wide range of advanced engineering solutions", said François Hélou, Senior Partner at Athenian Venture Partners. Mr. Hélou adds, "Comet Solutions also enjoys uniquely impressive loyalty from customers and business partners for an early-stage company. We look forward to supporting the strong leadership of Dan Meyer and his team in their mission to dramatically improve end users' ROI in the field of engineering solutions."

In June 2009, Comet Solutions announced a $1.4 million dollar loan from The Innovation Ohio Loan Fund. That money is specifically directed to expand and improve the company's product line while the new series B equity capital allows the company to accelerate its sales and support of those new products. Mr. Meyer states, "With most of our recent capital having strong roots in Ohio, Comet Solutions will continue to take advantage of Ohio's rich manufacturing base and talent to grow our business and add new jobs in Ohio."

For more information on Athenian Venture Partners visit their website at www.athenianvp.com/.

Click here to return to Contents

Geometric Net Profit Rises 58.7% to Reach Rs 162.41 Mn; Records revenues of USD 27.13 Mn for the quarter, an increase of 2.2% Q-o-Q

22 January 2010

Geometric Ltd. announced its Q3 FY 2009-10 financial results.

Highlights for quarter ended December 31, 2009

- An increase in EBITDA to Rs 266.23 Mn from Rs 197.13 Mn last quarter, a growth of 35% Q-o-Q and from Rs 125.24 Mn same quarter last year, a Y-o-Y increase of 113%
- Profit after tax from ordinary activities increased to Rs 163.33 Mn, a rise of 62.9% over last quarter
- Revenues increased 2.2% in dollar terms to USD 27.13 Mn from USD 26.54 Mn in Q2FY10
- Added 10 new customers this quarter

Geometric continued its focus on driving operational efficiencies and profitable growth with higher offshore leverage and improved utilization.

Geometric declared operating revenues of Rs 1,268.75 Mn this quarter, as compared to Rs. 1,281.93 Mn

in the previous quarter. While revenues in dollar terms grew by 2.2% over the previous quarter, unfavorable movement of the forex rate this quarter accounted for the even revenues, in rupee terms. The Profit before tax increased, by 63.3% over the last quarter and 219% on a Y-o-Y basis, to Rs 202.03 Mn. The Profit after tax (after extraordinary items) also significantly increased to Rs 162.41 Mn from Rs 102.36 Mn, a rise of 58.7% Q-o-Q and Rs 17.64 Mn in Q3FY09, an increase of over 820%.

Announcing the results, Mr. Ravishankar G., Managing Director & CEO said, "The third quarter is traditionally a slow quarter for the IT industry on account of the holiday season in most of our major markets. This quarter, we remain focused on our business specific strategies of achieving profitable growth, at an overall level. The structural realignment brought about in Q4 09 is helping us tremendously in this objective. We also continued our efforts to optimize on our operating levers, and thereby, drive profitability of our businesses; resulting in an improved EPS of Rs 2.61."

Business Highlights

The Company added 10 new customers during Q3, and at the end of the quarter, Geometric had 105 active customers, including 19 million dollar plus customers. Some of the significant wins this quarter include:

- A product lifecycle management solution customization project for a Japanese automotive OEM
- Acquisition of a new customer in the healthcare space with a combined offering of software development and product engineering
- Plant redesign and layout work for a new industrial customer
- Engineering product design for one of the largest automotive OEM, a testimony to the strength of our partnership in the current times
- Extension of an existing maintenance and support contract with a European industrial major

Other important business highlights for the quarter include:

- CAMWorks®, our intuitive CAM product was recognized for increasing productivity and speeding up operations by our clients - Roush Industries and CP Pistons
- Release of the Pro/Engineer version of GeomCaliper 2.4 with improved accuracy through the use of PTC's GRANITE Interoperability Kernel
- Release of NestLib® 2009 R3 with improvements in algorithms for material utilization for sheet metal punching

Click here to return to Contents

PTC Announces Q1 Results, Initiates Q2 Guidance and Updates FY'10 Targets

26 January 2010

PTC (reported results for its first fiscal quarter ended January 2, 2010.

Highlights

- Q1 Results: Revenue of $258 million and non-GAAP EPS of $0.27; GAAP EPS of $0.15
    - Non-GAAP operating margin of 17.5%; GAAP operating margin of 8.6%
    - Relative to Q1 guidance, currency was favorable to revenue by $1.9 million and unfavorable to expenses by $1.3 million

- Q2 Guidance: Revenue of $235 to $245 million and non-GAAP EPS of $0.14 to $0.20
    - GAAP EPS of $0.02 to $0.07
    - Assumes $1.46 USD / EURO
- FY 2010 Targets: Increasing revenue target to $1,015 million and non-GAAP EPS to $1.00
    - Non-GAAP operating margin of 16%; GAAP operating margin of 7.5%
    - GAAP EPS of $0.50
    - Assumes $1.46 USD / EURO

The Q1 non-GAAP results exclude $13.9 million of stock-based compensation expense, $9.0 million of acquisition- related intangible asset amortization and $7.4 million of income tax adjustments. The Q1 results include a non-GAAP tax rate of 25% and a GAAP tax rate of 18%.

Results Commentary

C. Richard Harrison, chairman and chief executive officer, commented, "We begin fiscal 2010 with strong performance in Q1: total revenue was up 8% year-over-year with license revenue up 48%. Our better than expected performance was driven by large enterprise PLM contracts in North America." On a constant currency basis total Q1 revenue was up 3% and license revenue was up 43%.

"Our PLM license revenue was $45 million, up 143% year-over-year, highlighting our leadership position in a large and growing segment of the enterprise software market," continued Harrison. "Our pipeline for new business opportunities with new and existing customers remains strong. During the quarter we recognized revenue from leading organizations such as Airbus, BAE Systems, Bucyrus International, Cummins Inc., DRS Technologies, The Danfoss Group, IKEA, Raytheon, Quanta Computer Inc., the United States Army and the United States Navy."

James Heppelmann, president and chief operating officer added, "Our ongoing investment in technology leadership is clearly paying off and our market momentum is becoming increasingly clear: our total PLM revenue is approaching a $500 million per year revenue run rate, we are engaged in more than 200 active competitive displacement opportunities on a world-wide basis, and we secured 4 additional strategically important "domino" account wins during the quarter."

"Our product portfolio has never been more compelling and we are continuing to invest to extend our technology leadership position," continued Heppelmann. "We have significant new releases of Windchill, Pro/ENGINEER, Arbortext, CoCreate and Mathcad coming out in FY'11, and we are progressing on our new embedded software and program portfolio management initiatives. We also continue to add to our product analytics platform; we recently acquired leading technology in the fast-growing carbon information management market, enhancing our "green product development" capabilities. Our product analytics platform enables customers to perform business intelligence-like analytics on their in-process product designs."

Heppelmann concluded, "We are very optimistic about the long-term opportunity for PTC and will continue to make strategic investments that we believe are critical to delivering value to our customers and gaining market share. We expect these investments to enable us to achieve our goal of 20% non-GAAP EPS CAGR over the next 5 years."

Neil Moses, chief financial officer, commented, "Our strong license revenue was, as expected, partly offset by a slight year-over-year decline in our maintenance and services revenue as we continue to work through the impact of soft license sales in 2009. Our CAD and SMB-related businesses were down modestly on a year-over-year basis, as expected, given the maturity of the CAD market and the ongoing impact of the global economy on the SMB space. Importantly, however, we are beginning to see signs of improvement in the SMB market and in the European and Asian markets as well. Our balance sheet remains solid with $231 million of cash."

Outlook Commentary

"Looking forward to the remainder of FY'10, we are increasing our full-year revenue target to $1,015 million and non-GAAP EPS target to $1.00," continued Moses. "We are now expecting 30% year over year license revenue growth, with our maintenance and services business flat to modestly up on a year over year basis. We are increasing our non-GAAP operating margin target to 16%, but also intend to continue to invest in our business to leverage our technology leadership position and capitalize on our long-term growth opportunity. We expect to pay down the remaining $57 million on our revolving credit facility and repurchase $60 million worth of shares during FY'10." For FY'10 the GAAP operating margin target is 7.5% and the GAAP EPS target is $0.50.

The FY'10 targets assume a non-GAAP tax rate of 25%, a GAAP tax rate of 17% and 120 million diluted shares outstanding. The FY'10 non-GAAP guidance excludes approximately $49 million of stock-based compensation expense, $35 million of acquisition-related intangible asset amortization and the related income tax effects.

"For Q2 we are initiating guidance of $235 to $245 million in revenue with non-GAAP EPS of $0.14 to $0.20, Moses added. "We are again expecting approximately 50% year-over-year growth in our license revenue in Q2. We expect our maintenance and services lines of business to be down slightly in Q2, but we expect to see growth in these businesses in the second half of FY'10."

The Q2 guidance assumes a non-GAAP tax rate of 28%, a GAAP tax rate of 25% and 120 million diluted shares outstanding. The Q2 non-GAAP guidance excludes approximately $12 million of stock-based compensation expense, $9 million of acquisition-related intangible asset amortization expense and the related income tax effects.

Q1 Earnings Conference Call and Webcast

Supplemental financial and operating metric information and prepared remarks for the conference call have been posted to the investor relations section of the PTC website. The prepared remarks will not be read live; the call will be primarily Q&A.

What:

PTC Fiscal Q1 Conference Call and Webcast

When:

Wednesday, January 27, 2010 at 8:30 a.m. Eastern Time

Webcast:

www.ptc.com/for/investors.htm

Replay:

The audio replay of this event will be archived for public replay until 4:00 pm (CT) on February 1,

2010 at 1-866-373-4992 or 203-369-0272. To access the replay via webcast, please visit www.ptc.com/for/investors.htm.

Important Information about Non-GAAP References

PTC provides non-GAAP supplemental information to its financial results. Non-GAAP operating expenses, margin and EPS exclude stock-based compensation expense, amortization of acquired intangible assets, acquired in-process research and development expense, restructuring charges, and the related tax effects of the preceding items and any one-time tax items. PTC provides this non-GAAP information to facilitate period-to-period comparisons of its operational performance by adjusting for certain non-cash and certain episodic expenses. We believe that providing non-GAAP measures affords investors a view of our operating results that may be more easily compared to peer companies. PTC management also uses this and other non-GAAP financial information to evaluate, manage and plan our business because the information provides additional insight into ongoing financial performance. In addition, compensation of our executives is based in part on the performance of our business based on these non-GAAP measures. However, non-GAAP information should not be construed as an alternative to GAAP information as the items excluded from the non-GAAP measures often have a material impact on PTC's financial results. Management uses, and investors should use, non-GAAP measures in conjunction with our GAAP results. We calculate revenue and expenses on a constant currency basis to obtain a view of the performance of our business without the effect of differences in foreign currency exchange rates used for translation. We calculate these measures by applying the applicable prior period exchange rates to current period revenues and expenses.

Q1 Fiscal 2010 Prepared Remarks (pdf, 702 KB)

Click here to return to Contents

SAP Announces Fourth Quarter and Full-Year 2009 Results that Exceeded Expectations

27 January 2010

SAP AG announced its preliminary financial results for the fourth quarter and full-year ended December 31, 2009.

View the Detailed Results (PDF)

Presentation (PDF)

Press Conference Webcast

Analyst Conference Webcast

FINANCIAL HIGHLIGHTS – Full Year 2009

SAP - Full Year 2009[1)]							
	U.S. GAAP			Non-GAAP[2)]			
€ million, unless stated otherwise	**FY 2009**	**FY 2008**	**% change**	**FY 2009**	**FY 2008**	**% change**	**% change constant currency[3)]**
Software revenues	2,606	3,606	-28	2,606	3,606	-28	-27
Software and software-related	8,197	8,457	-3	8,208	8,623	-5	**-5**

service revenues							
Total revenues	10,671	11,565	-8	10,682	11,731	-9	-9
Operating expenses	-8,031	-8,725	-8	-7,766	-8,428	-8	-8
–thereofrestructuring charges	-196	-	-	-196	-	-	-
Operating income	2,640	2,840	-7	2,916	3,303	-12	-11
Operating margin (%)	24.7	24.6	0.1pp	27.3	28.2	-0.9pp	**-0.6pp**
Income from continuing operations	1,825	1,928	-5	2,036	2,269	-10	–
Net income	1,789	1,869	-4	2,000	2,210	-10	–
Basic EPS from cont. operations (€)	1.54	1.62	-5	1.71	1.91	-10	–

1) All figures are preliminary and unaudited.

2) Adjustments in the revenue line items are for support revenue that the acquired entity would have recognized had it remained a stand-alone entity but that SAP is not permitted to recognize as revenue under U.S. GAAP as a result of business combination accounting rules. Adjustments in the operating expense line items are for acquisition-related charges. See Explanations of Non-GAAP Measures for details.

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

Revenues – Full Year 2009

- U.S. GAAP software and software-related service revenues were €8.20 billion (2008: €8.46 billion), a decrease of 3%. Non-GAAP software and software-related service revenues were €8.21 billion (2008: €8.62 billion), a decrease of 5% (5% at constant currencies).
- U.S. GAAP total revenues were €10.67 billion (2008: €11.57 billion), a decrease of 8%. Non-GAAP total revenues were €10.68 billion (2008: €11.73 billion), a decrease of 9% (9% at constant currencies).
- U.S. GAAP software revenues were €2.61 billion (2008: €3.61 billion), a decrease of 28% (27% at constant currencies).

Full Year 2009 Non-GAAP revenue figures exclude an acquisition-related deferred support revenue write-down of €11 million (2008: €166 million).

Income – Full Year 2009

- U.S. GAAP operating income was €2.64 billion (2008: €2.84 billion), a decrease of 7%. Non-GAAP operating income was €2.92 billion (2008: €3.30 billion), a decrease of 12% (11% at constant currencies). U.S. GAAP and Non-GAAP operating income were negatively impacted by restructuring charges of €196 million resulting from the previously announced reduction of positions.
- U.S. GAAP operating margin was 24.7% (2008: 24.6%), an increase of 0.1 percentage points. Non-GAAP operating margin was 27.3% (2008: 28.2%), or 27.6% at constant currencies, a decrease of 0.9 percentage points (0.6 percentage points at constant currencies). The €196 million in restructuring charges resulting from the previously announced reduction of positions negatively impacted the U.S. GAAP and Non-GAAP operating margin by 1.8 percentage points.

- U.S. GAAP income from continuing operations was €1.83 billion (2008: €1.93 billion), a decrease of 5%. Non-GAAP income from continuing operations was €2.04 billion (2008: €2.27 billion), a decrease of 10%. U.S. GAAP and Non-GAAP income from continuing operations were negatively impacted by restructuring charges of €138 million, net of tax, resulting from the previously announced reduction of positions.
- U.S. GAAP basic earnings per share from continuing operations were €1.54 (2008: €1.62), a decrease of 5%. Non-GAAP earnings per share from continuing operations were €1.71 (2008: €1.91), a decrease of 10%. The restructuring charges, net of tax, resulting from the previously announced reduction of positions negatively impacted the U.S. GAAP and Non-GAAP basic earnings per share by €0.12.

Full Year 2009 Non-GAAP operating income excludes an acquisition-related deferred support revenue write-down and acquisition-related charges totaling €275 million (2008: €463 million), and Full Year 2009 Non-GAAP income from continuing operations and Non-GAAP earnings per share from continuing operations exclude an acquisition-related deferred support revenue write-down and acquisition-related charges totaling €211 million net of tax (2008: €341 million).

Cash Flow - Full Year 2009

Operating cash flow from continuing operations was €3.04 billion (2008: €2.18 billion), an increase of 39%. Free cash flow was €2.81 billion (2008: €1.84 billion), an increase of 52%. Free cash flow was 26% of total revenues (2008: 16%). At December 31, 2009, SAP had a total group liquidity of €2.28 billion (December 31, 2008: €1.66 billion), which includes cash and cash equivalents, restricted cash and short term investments. At December 31, 2009, net liquidity, defined as total group liquidity less bank liabilities, was €1.58 billion.

FINANCIAL HIGHLIGHTS – Nine Months 2009

SAP - Fourth Quarter 2009[1)]

	U.S. GAAP			Non-GAAP[2)]			
€ million, unless stated otherwise	**Q4/2009**	**Q4/2008**	**% change**	**Q4/2009**	**Q4/2008**	**% change**	**% change constant currency[3)]**
Software revenues	1,119	1,322	-15	1,119	1,322	-15	-14
Software and software-related service revenues	2,565	2,666	-4	2,565	2,692	-5	-2
Total revenues	3,189	3,487	-9	3,189	3,513	-9	-7
Operating expenses	-2,134	-2,212	-4	-2,070	-2,140	-3	-0
– thereof restructuring charges	-10	-	-	-10	-	-	-
Operating income	1,055	1,275	-17	1,119	1,373	-18	-16
Operating margin (%)	33.1	36.6	-3.5pp	35.1	39.1	-4.0pp	**-4.1pp**
Income from continuing operations	748	860	-13	797	930	-14	–
Net income	727	830	-12	776	900	-14	–
Basic EPS from cont. operations (€)	0.63	0.72	-13	0.67	0.78	-14	–

1) All figures are preliminary and unaudited.

2) Adjustments in the revenue line items are for support revenue that the acquired entity would have recognized had it remained a stand-alone entity but that SAP is not permitted to recognize as revenue under U.S. GAAP as a result of business combination accounting rules. Adjustments in the operating expense line items are for acquisition-related charges. See Explanations of Non-GAAP Measures for details.

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

Revenues - Fourth Quarter 2009

- U.S. GAAP software and software-related service revenues were €2.57 billion (2008: €2.67 billion), a decrease of 4%. Non-GAAP software and software-related service revenues were €2.57 billion (2008: €2.69 billion), a decrease of 5% (2% at constant currencies).
- U.S. GAAP total revenues were €3.19 billion (2008: €3.49 billion), a decrease of 9%. Non-GAAP total revenues were €3.19 billion (2008: €3.51 billion), a decrease of 9% (7% at constant currencies).
- U.S. GAAP software revenues were €1.12 billion (2008: €1.32 billion), a decrease of 15% (14% at constant currencies).

Income - Fourth Quarter 2009

- U.S. GAAP operating income was €1.06 billion (2008: €1.28 billion), a decrease of 17%. Non-GAAP operating income was €1.12 billion (2008: €1.37 billion), decrease of 18% (16% at constant currencies). U.S. GAAP and Non-GAAP operating income were negatively impacted by restructuring charges of €10 million resulting from the previously announced reduction of positions.
- U.S. GAAP operating margin was 33.1% (2008: 36.6%), a decrease of 3.5 percentage points. Non-GAAP operating margin was 35.1% (2008: 39.1%), or 35.0% at constant currencies, a decrease of 4.0 percentage points (4.1 percentage points at constant currencies). The €10 million in restructuring charges resulting from the previously announced reduction of positions negatively impacted the U.S. GAAP and Non-GAAP operating margin by 0.3 percentage points.
- U.S. GAAP income from continuing operations was €0.75 billion (2008: €0.86 billion), a decrease of 13%. Non-GAAP income from continuing operations was €0.80 billion (2008: €0.93 billion), a decrease of 14%. U.S. GAAP and Non-GAAP income from continuing operations were negatively impacted by restructuring charges of €7 million, net of tax, resulting from the previously announced reduction of positions.
- U.S. GAAP basic earnings per share from continuing operations were €0.63 (2008: €0.72), a decrease of 13%. Non-GAAP basic earnings per share from continuing operations were €0.67 (2008: €0.78), a decrease of 14% year-over-year. The restructuring charges, net of tax, resulting from the previously announced reduction of positions negatively impacted the U.S. GAAP and Non-GAAP basic earnings per share by €0.01.

Fourth Quarter 2009 Non-GAAP operating income excludes acquisition-related charges totaling €64 million (2008: €98 million, which also included an acquisition-related deferred support revenue write-down), and Fourth Quarter2009 Non-GAAP income from continuing operations and Non-GAAP earnings per share from continuing operations exclude acquisition-related charges totaling €49 million net of tax (2008: €70 million, which also included a deferred revenue write-down).

“As a result of a very difficult and unstable market environment that began in the third quarter of 2008 and then continued into 2009, we rapidly put into place a plan to reduce operating expenses in order to protect our operating margin. I am pleased to report that we exceeded our initial expectations,” said Werner Brandt, CFO of SAP. “In 2009, we significantly reduced Non-GAAP operating expenses by around €650 million to €7.8 billion despite restructuring costs of approximately €200 million. The Non-GAAP operating margin at constant currencies was 27.6% which included a negative impact of 1.8 percentage points related to the restructuring charge. For 2010, we will continue to maintain strict cost controls with a spotlight on further margin expansion.”

Léo Apotheker, CEO of SAP continued, “Along with margin expansion for 2010, we are also ready to return to top-line growth, although the market continues to be challenging and uncertainty among customers still exists. Despite the difficult environment last year, we never lost focus on innovation, which is the cornerstone for growth going forward. Building on a strong foundation, we will drive growth by continuing to strengthen our core business and expand beyond the core with new products and technologies that speed implementation, provide for instant consumption and are easy accessible from anywhere, anytime, and from a broad range of devices.”

IFRS Financial Data

SAP will discontinue its U.S. GAAP reporting and will only report financial data under IFRS from fiscal 2010 onwards. The guidance provided by SAP for 2010 is based on Non-IFRS numbers that are derived from SAP’s IFRS figures by excluding acquisition-related charges and discontinued activities. To prepare the capital markets for this change, IFRS financial data are provided in the financial section of this press release.

Business Outlook

SAP is providing the following outlook for the full-year 2010:

- The Company expects full-year 2010 Non-IFRS software and software related service revenue to increase in a range of 4% to 8% at constant currencies (2009: €8.2 billion).
- The Company expects its full-year 2010 Non-IFRS operating margin to be in a range of 30% – 31% at constant currencies (2009: 27.4%).
- The Company projects an effective tax rate of 27.5% - 28.5% (based on IFRS) for 2010 (2009: 26.7%).

KEY EVENTS – Fourth Quarter 2009

- In the fourth quarter of 2009, SAP closed major contracts in several key regions including Achmea and Rabobank Nederland, Aeroflot Russian Airlines, AOK, Crédit Agricole S.A., Deutsche Bank AG, Hilti AG, NMBS-SNCB Group, and Talanx AG in EMEA; 3M Company, Baker & McKenzie, Dairy Farmers of America, Inc., Pfizer Inc., Servicios Nacional de Chocolates S.A., Sybase Inc., Verizon Services Corporation, and W.W. Grainger, Inc. in Americas; and Daiwa House Industry Co., Ltd., Department of Defence, Australia, Hubei Electric Power Corporation, Malaysian Airline System Berhad, National Australia Bank Limited, Singapore Power Ltd, and Vietnam National Petroleum Corporation in the Asia Pacific Japan region.
- In December, Deutsche Bank and SAP signed a letter of intent to start a multi-year initiative in 2010 to replace individual software solutions in its home market by a new core banking system based on SAP for Banking solutions. The SAP implementation underpins the bank’s strategy to push for a high degree of industrialization and standardization of processes.
- On December 17, SAP announced that Valero Energy Corporation signed a global enterprise agreement with SAP that will create a tighter relationship between the two companies, including a particular focus on collaboration on solution innovation and development over the next five years.
- On December 10, SAP announced the new SAP BusinessObjects Sustainability Performance Management application designed to help businesses more easily set sustainability goals and objectives, measure and communicate performance, and reduce data collection costs and errors. The new application helps organizations focus on improving economic, social and environmental performance rather than spending time on data collection and report compilation. The software features a library of key sustainability performance indicators and is the first solution to be certified by the Global Reporting Initiative Certified Software and Tools Program. The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world’s most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide.
- On December 7, SAP further extended its modular, market-leading solution offerings tailored for the banking industry by announcing innovations to its industry-specific banking software that supports banks’ business processes from the front to the back office.

- On December 1, SAP announced that the 2009 Key Performance Indicator achievements of the SAP User Group Executive Network (SUGEN) SAP Enterprise Support program have shown clear value to participating SAP customers.
- On October 27, SAP unveiled an interactive sustainability map for the SAP EcoHub solution marketplace, providing a clear view of the ecosystem of sustainability and "Green IT" solutions and services available from SAP and its partners. By simply clicking on defined areas in the SAP sustainability map within SAP EcoHub, customers can easily discover, evaluate and buy sustainability solutions and services from SAP and its partners.
- On October 21, SAP announced that Siemens AG, a global leader in electronics and electrical engineering, expanded its strategic relationship with SAP through its selection of the SAP Supplier Relationship Management application for Siemens' worldwide e-procurement operations. Also announced was the completion of Siemens' contract renewal for SAP maintenance support services for all SAP solutions based on SAP's maintenance standards for large customers for duration of three years.

Use of Non-GAAP and Non-IFRS Financial Measures

This press release contains certain financial measures such as Non-GAAP and Non-IFRS revenues, Non-GAAP and Non-IFRS operating income, Non-GAAP and Non-IFRS operating margin, free cash flow, constant currency revenue and operating income measures, as well as U.S. Dollar based Non-GAAP revenue numbers. These measures are not prepared in accordance with U.S. GAAP or IFRS and therefore are considered Non-GAAP or Non-IFRS financial measures. SAP's Non-GAAP and Non-IFRS financial measures may not correspond to Non-GAAP and Non-IFRS financial measures that other companies report. The Non-GAAP and Non-IFRS financial measures that SAP reports should be considered in addition to, and not as a substitute for or superior to, revenue, operating margin or SAP's other measures of financial performance prepared in accordance with U.S. GAAP and IFRS. See the financial section of this press release for additional information regarding the Non-GAAP and Non-IFRS measures included in this press release and for the reconciliations to the corresponding U.S. GAAP and IFRS measures.

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

Note to editors (TV/ radio/ print/ online)
SAP will post material from the press conference as well as collective TV interviews with SAP CEO Léo Apotheker in both English and German, in which he will discuss the Company's Q4 2009 and full-year 2009 financial results. You can find these interviews on the SAP stock footage platform www.sap.com/stockfootage on Wednesday, January 27, 2010, following the event. The interviews will be conducted by TV journalists in English and German language.
These interviews will be published in their entirety and without any edits, as well as for your unrestricted use free of charge (also for parts of it). In addition, these clips are not branded, are clean feed, and will be available as high resolution video files, as well as mp3 files for radio journalists. SAP will also broadcast these clips via satellite starting at approximately 11:35 a.m. CET. If you are interested in recording this feed, please contact us via broadcast@sap.com for the necessary satellite and technical information.

Appendix – Financial Information

Click here to return to Contents

VISTAGY Continues to Gain Ground in Global Markets in 2009 by Supporting Entire Engineering Process with Software and Services

27 January 2010

- 200+% increase in sales to emerging markets and 50+% growth in services
- 200+highlight company's progress in aerospace, automotive, wind energy,
- 200+transportation interiors and marine industries

VISTAGY, Inc. announced that 2009 sales of its software grew over 200 percent in emerging markets and global professional services surged more than 50 percent. VISTAGY enjoyed significant growth in

its target industries—aerospace, automotive, wind energy, transportation interiors and marine—as manufacturers and suppliers continued to seek out VISTAGY's industry-specific tools that support the *entire* design-to-manufacturing process for highly engineered products.

Toward that end, in 2009 the company introduced VISTAGY AeroSuite™, a comprehensive solution that enables aircraft manufacturers to more effectively manage the evolving product development process and deliver optimized parts and assemblies in less time at lower cost. In addition to FiberSIM® software, the long-standing, composites engineering solution, AeroSuite includes SyncroFIT®, a product line for designing and manufacturing airframe assemblies and large aerostructures, the Quality Planning Environment™, which enables engineers to ensure airframes are manufactured properly based on condition of supply definitions, and consulting services.

The year was highlighted by Bombardier Aerospace's decision to standardize on FiberSIM for all composites design-to-manufacturing processes, including the new CSeries aircraft and the all-composite Learjet 85 business jet. Bombardier is streamlining its global supply chain and integrating distributed processes by standardizing the entire composites development process for both programs on FiberSIM.

In 2009 VISTAGY also announced the sale of FiberSIM to CSeries aircraft and the all-composite Premium AEROTEC, a wholly owned subsidiary of EADS and a Tier One supplier to Airbus and Space Exploration Technologies Corporation (SpaceX), a premier developer of launch vehicles and spacecraft for government and commercial use.

"It's always important to help customers find ways to enhance their efficiency, but that is especially true when the economy is in the doldrums," said Steve Luby, president and CEO of VISTAGY. "Our products support the entire process for highly complex engineering projects by providing open and flexible, industry-specific tool sets that help customers leverage their existing engineering and product development tools while our professional services enable them to implement effective development processes. These kinds of products and services are resonating strongly in all our target markets around the world."

Click here to return to Contents

Implementation Investments

Americas Cup: BMW ORACLE Racing use STAR-CCM+ to Design World's Biggest Wing

28 January 2010

On February 8th 2010, in the Spanish port of Valencia, BMW ORACLE Racing's skipper Russell Coutts will take the helm of one of the most technologically advanced – and hopefully fastest – boats ever built, in a bid to capture the 33rd Americas Cup. The most remarkable feature of the trimaran – named "USA" – is that it will be powered by an enormous wing, rather than a conventional sail.

As Mike Drummond, BMW Oracle's Racing Design Director explains: "A wing of this scale has never been built for a boat. In terms of size, it dwarfs those on modern aircraft. Towering nearly 190ft (57m) above the deck, it is 80 per cent bigger than a wing on a 747 airplane."

In an exclusive interview (with CD-adapco's Anthony Massobrio) BMW Oracle's CFD Manager Mario Caponnetto explains how STAR-CCM+ was used to optimize the aerodynamic design of the wing, at the expense of traditional wind tunnel testing.

Interview

[**AM**] Why this choice of a rigid wing on your trimaran, instead of a conventional sail? Isn't this a radically new and risky choice?

[**MC**] Rigid wings are not really radically new in yacht racing. They have been used in high performance catamaran races and others racing boats for many years. By the way, a rigid wing first appeared in America's Cup in 1987. What is radically new is its size: the wing, with its 57 meters above deck, is the largest wing ever, 80% larger than a 747 aircraft wing. No one in our team had designed anything like this before, and this scared us a little bit at the beginning. Starting from white paper and evaluating pros and cons, we decided to move forward and quickly in the project. This project came true thanks to the enthusiasm of our chief designer, Mike Drummond.

[**AM**] What are the benefits and the shortcomings (if any) of a rigid wing with respect to a conventional sail?

[**MC**] The main advantage of a rigid wing is shape control. In other words, depending on the angle and the velocity of the wind, there is an optimal sail geometry that in turn optimizes the aerodynamic pressure field. This makes it possible to extract a maximum propelling power from the wind or in other terms to maximize efficiency. On a conventional sail material works, from the structural point of view, like a membrane and shape control is difficult. Some specific shapes are impossible to obtain and the final shape is a compromise. With a rigid sails, shape is much easier to control without compromises. Furthermore, during navigation there is always a feedback between imposed shape and achieved shape, whereas with traditional sails it is already an issue to identify the sail shape during navigation.

[**AM**] I guess the rigid wing benefits have its downside in terms of weight?

[**MC**] Not quite so! A conventional sail supports only traction loads and not bending loads. The wing, having a thickness, makes it possible to distribute loads on the two sides of the structure that at the end results to be very light. To sum up, the rigid wing weight is comparable to a conventional mast/sail system. With a one-dimensional analogy, we should think of a sail as a rope supporting a weight (the wind pressure) at its center. If one wishes to reduce its sag, tension will increase; therefore its thickness and weight should be increased in order to avoid breakdown. If we replace the rope with a cantilever, the weight of the structure will be smaller, given the same displacement. Let us think that huge forces are required to put into tension a conventional sail, to the point of stressing the boat structure itself. In comparison, a finger is enough to control the rigid wing…

[**AM**] What are the aerodynamic benefits of the rigid wing?

[**MC**] Once again one of the main benefits is shape control, aiming to control lift forces and to reduce drag forces. To do so, the wing is made of a front rotating element and eight independently rotating flaps. This makes is possible to change the vertical aerodynamic load. Between every flap and the frontal element lies a slot that favors air flow between the two sides of the wing. This makes it possible to delay the stall and to dramatically increase the maximum lift. In practice, the wing is able –even with light wind- to lift the central hull of the trimaran out of the water and reduce its resistance, even though the wing lateral surface is less than half of a conventional sail. The wing horizontal sections are more aerodynamically shaped than a thin sail. A sail profile is efficient at a certain angle of attack, more or less when the flow is tangential to the frontal edge of the sail. At smaller or larger angles, a flow tends to separate from the sail, thus reducing its efficiency. The rigid wing, with its rounded front edge, is much more tolerant to variations in the angle of attack. Even at a small angle of attack, the wing will still create lift and push the boat, whereas the sail will beat like a flag and restrain the boat. This is a

noticeable advantage during maneuvering, in particular when tacking, and is one of benefits that are most valued ones by our team's sailors.

[**AM**] How did you develop the wing project?

[**MC**] It was developed during a very few months, in house. The project was headed by Joseph Ozanne who linked aerodynamic, structural, electronic and shipyard engineers. The entire aerodynamic project has been based on numerical simulations without wind tunnel. CFD work has been carried on by Francis Hueber and me. In a very short time, the optimization work of the wing profile has been carried on with the STAR-CCM+ CFD code by our partner CD-adapco and exploiting a remote supercomputing cluster.

For us, it was very important that the CFD code was able to give indications on the wing behavior as far as stall is concerned. That behavior was later validated during sea trials. Furthermore, we created a database of optimal wing shape based on all the possibly encountered wind situations. The database is installed on board and allows optimizing, at any moment, wing efficiency.

What really impressed us, during the very first trials, was a better wing performance with respect to conventional sails. Therefore at the end of the testing phase at our San Diego base, it was decided to use the wing for the next America's Cup matches. This shows the goodness of the project we carried out.

[**AM**] Could you please give us more details on the aerodynamics simulation aspects?

[**MC**] STAR-CCM+ is a finite-volume approach to CFD. This is really nothing new at all, its theory can be found in textbooks. What interested us was the practical implementation.

First of all, we exploited the "client-server" architecture of the CD-adapco software. We could use a remote supercomputing cluster facility located in Italy. While sitting in our offices in Valencia or San Diego, we could check in real time the progress of the simulations running on the cluster. This happened thanks to a lightweight client -or if you like the final user- based on a Java interface, and a C++ server – or if you like the supercomputing cluster.

Second, of course, usage of the supercomputing cluster leveraged the STAR-CCM+ capability to scale well, i.e. to exploit the capability to divide the processing tasks between several processors in parallel. This was necessary since computational meshes for aerodynamics can reach several million elements.

The third success factor was process automation. STAR-CCM+ includes a CFD simulation engine (the solver) but also all the preprocessing phase (including construction of the computational mesh) and post-processing. This means we could build one complete workflow, or pipeline, and implement it over and over again during our optimization studies.

[**AM**] So, CFD is a tool for the happy few?

[**MC**] Situations like America's Cup or Formula 1 require a tremendous accuracy and detail since the engineering situation is pushed to the limit, and the optimization requirements for quantities like aerodynamic drag can be orders of magnitude more sensitive than in mass production boats or cars. I think that A.C. will continue to be one of the best benchmarks for CFD tools that can, in industrial situations, be applied in standard design offices based on small clusters or even PCs. Nowadays, all CFD processes should be automated in industrial situations, whereas A.C. pushes the application of the code to its limits in terms of physics, computational mesh or hardware resources. This creates a feedback process between the STAR-CCM+ developer, CD-adapco, and CFD teams in like America's Cup or Formula 1, and the feedback has a positive fall on other sectors.

For instance, we evaluated several models representing turbulence, from the standard k-e to k-w SST to

almost direct simulation via LES, whereas in repetitive industrial automotive or marine simulations just k-e or k-w will be adopted as daily model.

[**AM**] Could you disclose to the public some tips and tricks you implemented in your CFD activity?

[**MC**] What I can disclose is that we used the STAR-CCM+ technology for automatic meshing. Both arbitrary, isotropic polyhedral and Cartesian (oriented) trimmed cells are usable. There is no absolute rule on using the former or the latter. Polyhedra may be preferable to capture vortex phenomena whereas the Cartesian grid underlying trimmed cells may be preferable when a preferred flow direction is present. In both cases, a special treatment is used for boundary layer phenomena.

[**AM**] Coming back to sea trials: what were the changes for your sailors?

[**MC**] Several changes! It goes without saying that America's Cup sailors are among the best. Especially when talking about trimmers, we talk about people who developed in a lifetime the sensitivity, based on talent and experience, on how to make sails "breath". Then, engineers (all of them yachtsmen but amateurs) asking yachtsmen to follow our graphs and tables, so contrary to intuition… it was not easy at the beginning, but sailors, after testing out in practice our idea, became its strongest supporters. Since they were asking to designers why one wing shape was better than another one, CFD visualization capabilities were really useful to support the engineers' explanations to sailors.

I think that in a high-tech sports activity it is important to find a common language between engineers and "pilots" and in that sense, CFD has been a very good communication tool.

[**AM**] What is your America's Cup forecast?

[**MC**] It is difficult to say. Anything could happen due to meteorological conditions; also, boats are quite different from each other. Our competitors did a good job, with the advantage of designing their boat around rules they made themselves after seeing our boat. For instance they decided an engine could replace arms' force and allowed movable ballast. We tracked the new rules and adapted our boat accordingly. Fortunately, there is still not a lot of time to wait. The America's Cup match will take place in Valencia on February 2010.

Click here to return to Contents

Cadence OVM SystemVerilog Solution Enables More Thorough Verification and Reduces Costs at Mitsubishi Electric

25 January 2010

Cadence Design Systems, Inc. announced that Mitsubishi Electric Corp. has adopted Cadence® verification technology, including a unique adaptation of the Open Verification Methodology (OVM), that has helped cut verification time and improve ASIC product quality. By deploying the Cadence OVM SystemVerilog module-based solution, Mitsubishi has been able to conduct more thorough verification on its chips while reducing costs.

"This methodology has enabled us to reuse 40 percent of our verification components throughout a series of ASIC developments," said Yoshimasa Ishino, department manager, LSI Design Engineering Department at Mitsubishi Electric Corporation's Design Systems Engineering Center. "Building and reusing verification components based on OVM makes it easier to focus on the enhancements introduced in the new products. As a result, we were able to reuse our previous verification environment and reduce the time it took us to complete the new environment by 30 percent. We are sure that the

Cadence OVM SystemVerilog module-based approach will be an effective way to reduce our resources and costs used for SystemVerilog-based verification."

The OVM SystemVerilog module-based solution is geared for customers who have not yet moved to an object-oriented verification methodology but still need reuse and scalability. It overlays portions of the OVM library with Verilog modules to provide a simplified user interface to the OVM without affecting the methodology for reuse. This approach is ideal for design engineers who need to do some verification but are new to the object-oriented programming required for use of the general OVM library. The verification IP (VIP) created with the module-based approach has the same plug-and-play structure as the full class-based OVM approach, thereby simplifying integration.

"We developed this unique adaptation of the OVM because we understood that, while many companies seek the benefits of the OVM, some aren't prepared quite yet to take the step to object-oriented verification," said Thomas L. Anderson, product marketing director of Enterprise Verification at Cadence. "The OVM SystemVerilog module-based solution eases adoption of advanced verification while delivering the reuse and scalability needed to conduct cost-efficient, thorough design validation."

Click here to return to Contents

CD-adapco Helps Windgiant to Bring Revolutionary Wind Turbine Design to Market

28 January 2010

In order to meet the world's energy demands in a sustainable manner, engineers need to deliver robust innovative technology. For 30 years, CD-adapco has enabled energy engineers to do just that in the 'traditional' energy sectors, and is now routinely applying the same advanced engineering simulation technology to the renewable energy sector. In a recent project, CD-adapco's Engineering Services team helped to demonstrate the feasibility of a new wind-turbine concept using engineering simulation, giving its designers the confidence to invest in an full-scale prototype, and ultimately to bring the design into successful commercial production.

The Windgiant turbine utilizes technology, in which wind flow is accelerated through a multi-bladed fan using a number of concentric aerodynamic shrouds. Compared to traditional three bladed turbine designs, the compact Windgiant turbine delivers a much higher energy per unit surface area and operates at much lower wind speeds (delivering energy at wind speeds as small as 1.5 m/s). Combined with its ultra-low noise energy production (less than 40 dB (A) at 12 meters), the compact design of the Windgiant turbine means that it is suitable for installation in urban residential settings, as well as industrial environments. Currently available in 10kW and 20kW, Windgiant is developing a much larger hybrid-tower which delivers 2.5MW from a combination of wind and solar power.

CD-adapco's Engineering Services team helped us to demonstrate that our concept was valid, and allowed us to fine tune our design before investing in expensive physical prototypes," said Gerhard Wieser, the designer and innovator behind the Windgiant project. "Having successfully installed a number of Windgiant turbines, I am delighted to report that the devices' behaviour is as predicted by the simulations, with each device delivering plentiful supplies of low-cost electricity in complex urban environments."

"In order to maximize their efficiency, most current wind turbines were designed using extensive experimental model testing. Although experimental analysis provides considerable insight into the performance of a particular design, physical prototypes are expensive and time consuming to construct," said CD-adapco's Dennis Nagy Vice President of Business Development and Director, Energy

Industries. “Engineering Simulation allows the designers of innovative concepts such as the Windgiant turbine to demonstrate their feasibility without committing unnecessary expenditure to the construction of prototypes.”

Learn more

For more information on the Windgiant turbine, please visit http://www.windgiant.com.

For more information on how CD-adapco software and services are used in the Energy Sector, please visit:

http://www.cd-adapco.com/applications/energy.html

Click here to return to Contents

Cummins Inc. Selects PTC’s Windchill® PLM Software as Enterprise-Wide Global Standard

26 January 2010

PTC announced that Cummins Inc. has selected Windchill, PTC’s Product Lifecycle Management (PLM) software, as its global enterprise PLM system.

“Cummins has made the concept of Design Anywhere, Build Anywhere a cornerstone of its business initiatives and commitment to customers,” said Chris MacAslan, director, global PLM, Cummins. “In switching to Windchill, we are looking to optimize accessibility throughout all functional areas of our PLM environment. In particular, the Windchill solution will allow us to best achieve our compliance and productivity goals and successfully extend our competitive advantage.”

The integral nature of PTC’s product development system will allow Cummins to streamline and accelerate its key development and product introduction processes as well as advance its global productivity. With Windchill, Cummins will be able to achieve the accessibility, compliance and pure performance objectives of its core business initiatives.

“As the largest independent maker of diesel engines and related products in the world, Cummins is a clear global power leader, delivering into worldwide markets,” said Paul Cunningham, executive vice president worldwide sales and distribution, PTC. “With this competitive legacy displacement we are excited to now deliver the innovation that will help Cummins further increase its productivity and market leadership position.”

Click here to return to Contents

Diehl Aircabin Selects Teamcenter to Help Optimize Processes, Enhance Collaboration and Boost Innovation

28 January 2010

Siemens PLM Software announced that Diehl Aircabin, one of the leading developers and manufacturers of cabin interiors and system elements for the international aircraft industry, selected Teamcenter® software to help optimize processes, enhance collaboration and boost innovation.

Diehl Aircabin, designs, develops and manufactures cabin modules, crew rest compartments and air distribution systems for the civil aircraft industry, including the new wide-body Airbus® A350 aircraft. Up until 2008, Diehl Aircabin was a wholly-owned subsidiary of Airbus and is now one of the major First Tier Suppliers for aircraft manufacturers.

Diehl Aircabin selected Teamcenter, Siemens PLM Software's digital lifecycle management portfolio, following an extensive evaluation process which included a detailed presentation of the cost-benefit analysis and intensive consideration and calculation of the return on investment (ROI). Teamcenter was selected because Diehl Aircabin was convinced of its broad functional range including its ability to more easily configure and visualize complex processes and its open architecture that enhances collaboration and opens the way to an end-to-end PLM strategy. The company aims to utilize these capabilities to optimize its engineering processes and strengthen cooperation with international partners and customers.

"Siemens PLM Software's Teamcenter portfolio, will help optimize our engineering process topography," said Markus Marschall, CFO, Diehl Aircabin. "Visualizing all engineering processes in Teamcenter, this system will give us complete control over our complex engineering environments. We will also benefit from Siemens PLM Software's longstanding expertise and PLM market leadership in the aerospace and defense industry."

"The selection of Teamcenter by a leading aviation and space company such as Diehl Aircabin further validates the breadth and depth of our solution and the fit of our technology," said Martien Merks, senior vice president and managing director, Germany, Siemens PLM Software. "This also continues a trend that strengthens our position as a preferred PLM supplier to the aerospace and defense industry."

Click here to return to Contents

Hyundai Kia Chose The iPoint RRR Module

20 January 2010

iPoint-systems gmbh announced that Hyundai Kia has chosen the iPoint RRR module (Reusability, Recyclability, Recoverability) which is part of the iPoint Compliance Agent and its material management system. The RRR-module now enables Hyundai Kia to identify the necessary RRR-quotes which are required for type approval and also to create ISO-compliant reports. This will also make future environmental decisions within product development (e. g. design optimization.) much easier in advance.

Click here to return to Contents

ideas Uses Autodesk Inventor on Advanced Construction Recycling Facility*

28 January 2010

Autodesk, Inc. has named ideas*, an Australian engineering services firm, the Autodesk Inventor of the Month for January 2010. The company used Autodesk Inventor software to design and develop the world's most advanced construction recycling facility. The massive facility in Victoria, Australia will be capable of recycling one million tons of demolition materials per year.

ideas* designed and engineered the facility for the Alex Fraser Group. The size of four football fields, the new facility uses the most modern technology to more efficiently recycle unprecedented volumes of discarded construction and demolition materials. Since products made from recycled concrete have 65 percent less carbon impact than products made from quarried stone, the recycling plant promises to significantly reduce the environmental impact of construction projects throughout Australia.

Design work on the ambitious project was subcontracted to 14 different fabricators. Autodesk Inventor software provided a flexible, central management point for the different teams, facilitating important

design revisions across the entire project.

"A design project of this scale would have been impossible without Autodesk Inventor," said Michael Percy, managing director of ideas*. "All team members used Inventor to create digital prototypes, enabling faster design decisions and improvements earlier in, and throughout, the design process. The result was a greatly improved system, with less costly rework and modifications during installation and commissioning."

Key plant features designed with Autodesk Inventor software include a "dual jaw crusher" for breaking down construction materials into smaller chunks, a comprehensive multilayered separation system and a high-capacity "pug mill" for grinding and mixing materials to form high-quality road base materials. The collaborative approach taken by ideas* and its extended team enabled the entire project to be installed within 10 months of the first designs.

"Using Autodesk Inventor software enables ideas* to take a more intelligent and effective approach to its large-scale projects. That, in turn, leads to better outcomes for the company's clients," said Robert "Buzz" Kross, senior vice president, Manufacturing Industry Group at Autodesk. "ideas*' work on this innovative facility demonstrates the efficiency of Digital Prototyping in helping companies bridge typical gaps of understanding between conceptual design, engineering and manufacturing teams."

For more information about Autodesk Inventor of the Month, contact IOM@autodesk.com.

Click here to return to Contents

Norvento Selects ANSYS for Renewable Energy Engineering Simulation

26 January 2010

ANSYS, Inc. announced that Norvento Energía Distribuida, a renewable energy company in northwest Spain, has selected the multiphysics suite of software from ANSYS for enterprise-wide use in developing and optimizing renewable forms of energy. Norvento expects to leverage the coupled electromagnetic, thermal and structural simulation capabilities of ANSYS® technology in developing the best designs possible.

One of the company's most significant recent projects is development of a new innovative wind turbine specially designed for distributed energy applications. "We determined that engineering simulation was the best tool for coming up with fast, effective and innovative designs," said Miguel Hoyos, technical director at Norvento Energía Distribuida. "For example, the ANSYS tools enable us to perform electromagnetic calculations of rotating electrical machines, thermal calculations associated with electromagnetic effects of the operation of the rotating electrical machines, and structural calculations that are mainly linear but for specific parts with high displacements. Simulation will help us arrive at the best design more efficiently and most cost effectively." Norvento chose an enterprise-wide approach so its various departments could easily share technology and collaborate on resulting data, coupling software for multiphysics analysis where needed.

"Wind turbine design stands to benefit greatly from the coupled use of ANSYS multiphysics software, since the platform can simulate various engineering aspects — from aerodynamic analysis to structural and component design," said Ahmad Haidari, director, industry marketing at ANSYS, Inc. "With the addition of Ansoft electromagnetic products to the ANSYS suite, Norvento is able to optimize their wind turbine's electromechanical system, considering factors such as the electric generator, variable speed control system, transformers, power electronics, power distribution, and sensor and actuator

design. The breadth of engineering solutions and depth of multiphysics technologies from ANSYS gives customers the tools they need to succeed in today's ultra-competitive environment."

About Norvento Energía Distribuida

Norvento is dedicated to the promotion, construction and operation of power plants that use renewable energy sources. The company has been a pioneer in the development of renewable energies in Spain, and currently it is the largest Galician energy group, considering factors such as installed capacity, creation of employment, volume of assets and profits. Norvento owns facilities in the fields of hydro, wind, biomass and solar energy. It also has allocated significant resources to R&D projects, including wave and geothermal power. In 2008, Norvento's facilities attained an output of 307,034 MWh, avoiding the emission of 184,220 tons of CO2 to the atmosphere. For more information, visit http://www.norvento.com/index.asp.

Click here to return to Contents

PLM Technology "Critical to the Future of the Aerospace Industry"

28 January 2010

Siemens PLM Software shared news in preparation for the Singapore Air Show taking place next week. Siemens PLM Software highlights the increasing importance of PLM software to the aerospace and defense industry and market trends specifically driving Asia's aerospace market growth.

According to Ed Miller, president of CIMdata, Inc., a leading PLM industry consulting and research firm, PLM technology and solutions are "critical to the future of the aerospace industry."

New aerospace and defense industry development programs in Asia are confirming the growing importance of the aerospace markets in China, Japan, Korea, India and Australia. Siemens PLM Software's technology helps aerospace and defense industry companies manage innovation and transformation, helping to enhance or maintain their leadership position. For instance, one defense department in Asia was able to improve its configuration management, compliance and safety requirements for all services, e.g., Army, Navy and Air Force, by standardizing on Siemens PLM Software.

Separately, Siemens PLM Software also today announced that Diehl Aircabin, one of the leading developers and manufacturers of cabin interiors and system elements for the international aircraft industry, selected Teamcenter® software to help optimize processes, enhance collaboration and boost innovation. (see release)

Eurocopter, one of the leading European aerospace companies, uses Siemens PLM Software's solutions to ensure product reliability under extreme conditions to develop and employ new and innovative materials and technologies and continue to address the increasingly complex industry safety requirements.

"By utilizing Siemens PLM Software's technology, Eurocopter was able to produce the most powerful helicopter on the market today. We were also able to reduce the number of prototypes produced and improve documentation for testing institutions that led to faster approvals," said Jyrki Majamäki, engineer for NH90 Compliance, Eurocopter.

Honeywell Aerospace, a leading global provider of integrated avionics, engines, systems and service solutions for aircraft manufacturers, airlines, business and general aviation, military, space and airport

operations, has deployed Teamcenter to enhance the company's design anywhere, build anywhere capabilities and help the company more effectively manage workloads within and between programs.

"Teamcenter allows our organization to work virtually across a very distributed site construct enabling cross-site workflow, and it allows us to work much more integrated with our supply chain, co-development partners and other parts of the organization," said Bob Smith, chief technology officer, Honeywell Aerospace.

Over the last year, the following customer milestones/breakthroughs confirmed the power of PLM technology and the digital revolution to drive innovation and transformation at a time when global collaboration and value-chain synchronization have never been more important:

New Booster for ISS Orion Crew Vehicle:

The new booster rocket was successfully tested in 2009 for the future NASA International Space Station Orion Crew Transport Vehicle. In building the new booster rocket, ATK, NASA's prime contractor on the project, used technology from Siemens PLM Software to develop an industry leading innovative vehicle.

AVIC Liming Aerospace:

The AVIC Liming Aeroengine company in Shenyang, China, was able to reduce its design change-cycle by 48 percent and its manufacturing process-planning by 50 percent through the implementation of Siemens PLM Software's technology to build a single digital model integrated design and manufacturing operation.

Secure Global Lifecycle Collaboration:

The Lockheed Martin-led global coalition implemented the first integrated digital environment (IDE) that will seamlessly and continuously support the largest military aircraft program in history. The current environment supports 140 sites worldwide, 1,200 workflows, 6,000+ users and is expected to grow substantially to support a global fleet of aircraft.

Sukhoi Superjet 100:

Sukhoi Civil Aircraft Company has designed a new regional jet by integrating design, manufacturing and final assembly sites that span all of Russia with key partners across Europe and the United States. With the program launch in 2001, the first flight was in May 2008, and full certification of the Superjet 100 Regional is slated for 2010. (see release)

"To succeed in today's global business environment, aerospace and defense companies are realizing more and more that PLM technology is crucial for being able to manage new and existing complex programs in the most efficient way possible – thus improving supply-chain performance, product time-to-market, and secure collaboration," said Helmuth Ludwig, president, Siemens PLM Software. "Our focus on the aerospace and defense industry throughout Asia will only increase moving forward as we expand our solutions' capabilities to address new industry challenges."

Click here to return to Contents

Power Company Uses SolidWorks to Design Ultra-Efficient Natural Gas Plant

26 January 2010

The Greenfield South Power Plant, under construction in the city of Mississauga in Southern Ontario,

will supply power to greater Toronto. The 280-megawatt (MW) facility is a combined cycle natural gas plant that nets extra efficiency by using a steam turbine to convert waste heat from combustion into additional energy. Developer Eastern Power Limited is just one of an estimated 1,700 engineering organizations using SolidWorks for plant design. (Case study)

Eastern Power chose SolidWorks CAD software to introduce 3D design into its development process, a capability demanded by the scope and sophistication of the project.

"I know how painful it is to work with piping in 2D," said Orlando Linero, plant designer for Eastern Power. "On a project as complex as Greenfield South, we had to find a better way to develop every facet of the plant – from the structural steel to the piping systems to the turbines. In short, we needed faster and better 3D tools for creating, simulating, and communicating our designs."

Linero's team had evaluated several design software packages but selected SolidWorks because it was the most flexible. "SolidWorks is the only solution with integrated design, piping, structural, simulation, and documentation capabilities," said Linero. "We can see, analyze, and document every design detail right in the 3D model, and easily coordinate design activities for a complex project without translating data to other tools."

Using SolidWorks, Eastern Power compressed design cycles by 50 percent and cut development costs by 60 percent, Linero estimates.

SolidWorks in plant design

Engineering organizations like Eastern Power are discovering the value of SolidWorks software for designing not only the machinery and equipment inside a plant, but the plant itself. Firms using SolidWorks in this area are saving as much as $20,000 on every seat of software over traditional plant design software, estimates Dassault Systèmes SolidWorks Corp. (DS SolidWorks).

In addition to designing the structure and the equipment inside, teams are using SolidWorks to lay out that equipment, connect it, generate documentation, and produce detailed construction/manufacturing drawings. They can also simulate stresses, fluid flows, and thermal dynamics. "Since MCAD is required to design the equipment, customers reason, why not keep using the same software to design the entire facility?" said Eric Leafquist, product manager of plant and process at DS SolidWorks.

Advisory board for plant design

Ten engineering organizations that use SolidWorks software have come together to form a SolidWorks Plant Design Advisory Board to share best practices on plant design and help guide SolidWorks product direction.

At an initial meeting in October 2009, the panel explored modular design approaches that involve designing standardized, ready-made systems into their projects, saving original and innovative design work for differentiated uses. At SolidWorks World 2010 next week, the board will convene for the second time and meet two SolidWorks Solution Partners who have recently announced structural steel design products fully integrated with SolidWorks software, AMV and SolidACE.

SolidWorks World 2010 will also offer several breakout sessions for attendees interested in learning more about SolidWorks' role in plant design including:

Enhancing Plant Design Using SolidWorks and Design Automation Tools

Plant Design Using SolidWorks Together with Solution Partner Products and Other Standard Industry Tools

Plant Design at INFILCO DEGREMOUNT Using SolidWorks: A Case Study

Leveraging the Power of SolidWorks & Weldments for Plant Design

For more information on using SolidWorks in plant design, visit www.solidworks.com/energy-process-plant.

Eastern Power Limited relies on authorized SolidWorks reseller Javelin Technologies for ongoing software training, implementation, and support

Click here to return to Contents

PTC Wins Strategic Windchill Contract with One of the World's Largest Producers of Commercial Vehicles

27 January 2010

PTC announced that Volvo Group has signed an agreement moving PTC from a directional decision to a firm strategic decision to use Windchill®, PTC's PLM (Product Lifecycle Management) software, for Volvo Group's strategic VPDM (Virtual Product Data Management) program. This firm decision is the result of an exhaustive final validation that clearly demonstrated the value of the Windchill software and PTC´s capability to execute as an organization.

Volvo Group is one of the world's leading manufacturers of trucks, buses and construction equipment, drive systems for marine and industrial applications, and aerospace components and services.

"We are excited to begin the next phase of what we expect will be a multi-year relationship with Volvo Group," said James E. Heppelmann, president and chief operating officer PTC. "Volvo has very sophisticated product development requirements: they operate in a fast-paced, global environment; they work with multiple, heterogeneous sources of data; they develop complex products, which are in many cases highly customized and have significant life cycles."

Click here to return to Contents

PTC® Provides Raytheon with Windchill® Product Lifecycle Management Solution for Global Product Development Management

26 January 2010

PTC announced that Raytheon Company, a global aerospace and defense organization, placed a significant order to standardize on PTC's Windchill PLM software across the company as the cornerstone of its global Product Development Management strategy. Raytheon selected Windchill to replace its enterprise product data management system. Windchill enables Raytheon to create a common global collaborative environment for product design, development and production in support of its design anywhere, build anywhere, support anywhere business initiative.

"We are pleased to be working with Raytheon and look forward to continue helping them realize the value that PTC software can bring to its global product development initiatives."

The use of a single enterprise-wide PLM backbone will enable the company to more effectively harness the power of its world-wide organization in order to deliver these critical new products to the market.

"Organizations with a large global presence realize the importance of having a single, integral PLM platform for product development," said James E. Heppelmann, president and chief operating officer,

PTC. “We are pleased to be working with Raytheon and look forward to continue helping them realize the value that PTC software can bring to its global product development initiatives.”

Windchill can help standardize common product development processes including change and configuration management, streamline product data and workflows, and provide immediate access to product information across the organization. Additionally, Windchill provides advanced search capabilities to support data reuse that can drive a more streamlined product development process.

“Windchill is a strategic information system,” said Paul Cunningham, executive vice president worldwide sales and distribution, PTC. “PTC’s commitment to product excellence supports a strategy to consistently develop and deliver high quality, innovative products to the market. With our commercial off-the-shelf software, PTC offers companies the opportunity to build a common technology platform for their PLM initiatives.”

 *Click here to return to Contents*

Renesas Adopts Cadence Virtuoso Technology for Mixed-Signal and Analog Design at its Global Design Centers

26 January 2010

Cadence Design Systems, Inc. announced that Renesas Technology Corp. has upgraded to the latest version of Cadence® Virtuoso® technology at its global design centers. Renesas anticipates the constraint-driven design and verification capabilities in Virtuoso IC 6.1 will shave up to 30 percent off the turnaround time for its mixed-signal and analog designs while maintaining their high quality standards.

“Through our extensive evaluation, we now have confidence that Virtuoso IC 6.1 significantly shortens design turnaround time and brings us unparalleled productivity gains in our analog/mixed-signal designs,” said Takao Sato, department manager, SIP & Analog EDA Technology Development Dept. in the Design Technology Div. at Renesas Technology Corp. “We have used Virtuoso technology for analog and mixed-signal designs for years and expect great results with our deployment of Virtuoso IC 6.1 at our worldwide design sites.”

The constraint-driven methodology enabled by Virtuoso IC 6.1 technology can ease the way for IP reuse, while its constraint-driven verification capability can cut the time needed to ensure design intent is maintained.

Renesas cited the Virtuoso technology’s advanced automation, including its yield optimization, parasitic-aware design mode and constraint template features as being extremely useful. Renesas engineers are using the constraint template to develop complex constraints for layout automation. The company’s use of SKILL-based process design kits (PDKs) allows for more complex Pcells and faster design time with high-quality results.

“Cadence and Renesas have had a long relationship when it comes to using Virtuoso," said Tom Beckley, corporate vice president at Cadence. “We are pleased that Renesas has both seen and verified the value of our IC 6.1 offering and are now deploying it successfully throughout their design groups."

 *Click here to return to Contents*

Siemens PLM Software's Technology Used by Almost All Automakers Participating in the

Washington Auto Show

28 January 2010

Siemens PLM Software announced that its technology enabled the development and manufacture of more than 90 percent of the vehicles that top selling automakers are exhibiting at this year's Washington Auto Show.

"The Washington Auto Show is extremely important for the automotive industry. It's a great chance for the leaders of our country to experience the incredible vehicles auto manufacturers are producing today," said Chuck Grindstaff, executive vice president, Products and Chief Technology Officer, Siemens PLM Software. "The complexity of producing safe, consumer friendly automobiles is constantly increasing and we are proud to be partnering with automakers to manage this complexity throughout the product development, manufacturing and support lifecycles.

"The auto industry has been using our software for years to innovate the best products at the lowest possible cost. But that's only part of the story, sustainability is the larger goal. We have enabled storage, management and collaboration for the broad set of interrelated information automakers need to drive their decisions. This speeds creation and selection of the best options, to produce the most attractive products and do so in a sustainable way. The next phase will help automate the application of this product and production information to help meet this sustainability challenge. This will help our customers gain a competitive advantage over those without a comprehensive strategy," added Grindstaff.

Siemens PLM Software's technology is used by automakers and suppliers to plan, evaluate and coordinate the development and manufacturing engineering of vehicles. Siemens PLM Software satisfies the mission critical needs of leading automotive original equipment manufacturers (OEM's) for managed collaboration across complex engineering functions and throughout the extended supply chain. By breaking down barriers between engineering functions, providing real-time access to information, and performing analysis and simulation, Siemens PLM Software has delivered double-digit efficiency improvements.

Siemens PLM Software is used extensively in the automotive industry. Of the 68 million vehicles produced in 2008 by the top 50 global OEM's, Siemens PLM Software was used on more than 64 million. Additionally, of the 16 OEM's producing over 1 million vehicles a year, 15 of them use Siemens PLM Software technology. And overall, of the top 30 OEMs, 26 use Siemens PLM Software's technology in the development and manufacturing of their vehicles – more than any of Siemens PLM Software's competitors.

Click here to return to Contents

Toshiba Information Systems (Japan) Standardizes on VMM-LP Low Power Verification Methodology

25 January 2010

Synopsys, Inc. announced that Toshiba Information Systems (Japan) has standardized on the Verification Methodology Manual for Low Power (VMM-LP) to verify its low power chip designs. Incorporating industry best practices from the collective real-life experiences of more than 30 companies, the VMM-LP provides a framework for accelerating the verification of low power designs. Toshiba Information Systems (Japan) used Synopsys' voltage-aware VCS® functional verification

solution with MVSIM and VMM-LP to deploy a uniform, structured and repeatable verification methodology across its low power design projects.

Toshiba Information Systems (Japan) performs design and verification services for low power designs with complex low power architectures employing multiple voltage domains and advanced design techniques. The functional modes of the design map to several power modes, and a single undetected bug may cause the entire system to not meet power requirements or to even malfunction. Verification of all the design's power modes requires a rigorous and methodical approach to ensure bug-free silicon. One of the most time-consuming aspects of low-power verification is the development and deployment of a reusable testbench across multiple projects. Leveraging the documented methodology in the VMM-LP book and using the low power base classes, Toshiba Information Systems (Japan) was successful in verifying the low power functionality of a mobile multimedia application and setting up a testbench infrastructure that can be quickly adapted to other low power projects.

"We are seeing a rapid increase in the complexity of low power designs in Japan," said Tomoji Takada, general manager, LSI Solutions Division, Toshiba Information Systems (Japan). "In addition to using a voltage-aware verification solution provided by VCS with MVSIM, we needed a structured methodology to enable efficient low-power verification and ensure high-quality designs. VMM-LP provided us this structured methodology. It also helped us to find ways to leverage our verification setup and build upon our verification expertise in OCP and AMBA-based environments and extend it from one low power project to the next."

"VMM-LP addresses the market need for innovation in low power verification," said Manoj Gandhi, senior vice president and general manager, Verification Group, Synopsys, Inc. "Our collaboration with Toshiba Information Systems (Japan) will help to deploy the VMM-LP methodology on many design projects. Synopsys will continue to invest and collaborate with industry leaders in developing and enabling next-generation verification methodologies."

About the VMM for Low Power

The lead authors of the VMM-LP book are Srikanth Jadcherla, group director of Research and Development at Synopsys and founder of ArchPro Design Automation, Inc., which Synopsys acquired in 2007; Janick Bergeron, Synopsys Fellow and moderator of the Verification Guild web site; Yoshio Inoue, chief engineer, Design Technology Division, Renesas Technology Corp., and David Flynn, ARM fellow and co-author of the Low Power Methodology Manual (LPMM) [Springer].

The VMM-LP book defines a robust and scalable verification architecture that can be used to setup and complete verification of low power designs. The methodology addresses all aspects of functional verification of power management functions, including suggestions for static versus dynamic verification, design-for-verification techniques, and use of assertions and coverage metrics to achieve rapid verification closure. VMM-LP also defines SystemVerilog base classes that are power aware and enable setup of a reusable testbench.

Availability

The VMM-LP book is available today for purchase through the VMM Central Web site (www.vmmcentral.org/vmmlp). Additionally, customers can download a PDF version of the book and register to receive notification about the availability of the source code for the VMM-LP SystemVerilog base classes from VMM Central.

Click here to return to Contents

Product News

Agilent Technologies Announces NXP Semiconductors' Design Kit for RF Small Signal Products in Advanced Design System

27 January 2010

Agilent Technologies Inc. announced the availability of an NXP Semiconductors' design kit for RF small-signal products within Agilent's Advanced Design System (ADS). The design kit provides NXP's customers with easy access to comprehensive libraries of models within ADS for NXP's RF wideband devices, diodes, function FET's, dual-gate MOSFET's and MMIC's. With the new design kit, customers can run simulations in ADS prior to moving to prototype. This significantly accelerates project development with NXP's components and speeds time-to-market.

"We are excited to have the latest NXP design kit in ADS," said Avery Chung, foundry program manager of Agilent's EEsof EDA division. "Our customers now have access to the breadth of simulation capability in ADS, including yield optimization, DFM tools and the Momentum 3D planar EM simulator. They can also generate X-Parameter* models of their circuit-level designs directly from ADS, providing fast and accurate behavioral modeling. These capabilities are key to designing high-performance RF modules and RF System-in-Package (SiP) components."

"RF design is a highly complex process," said Ronald van Cleef, senior director and general manager, RF Small Signal, NXP Semiconductors. "The availability of our new design kit will go a long way in easing this complexity. It will also improve the overall design experience for new and existing customers using our RF small-signal products."

The NXP RF small-signal products design kit is available for download at no charge from NXP's Web site: www.nxp.com/models/index.html

Click here to return to Contents

Alibre Inc. Releases Alibre CAM 2.0

19 January 2010

Alibre, Inc. announced the latest release of Alibre CAM. Alibre CAM is Alibre's fully integrated, parametric machining solution for Alibre Design CAD software. It offers 2.5, 3, 4, and indexed 5 axis tool path creation and g-code output to over 160 popular CNC machine brands.

Alibre CAM 2.0, developed in conjunction with technology partner MecSoft Corporation, delivers substantially extended functionality over previous versions. A new user interface, streamlined workflows, higher performance, and new machining operations further enhance Alibre's value-leader position in the market.

"Alibre CAM 2.0 represents nearly a year of dedication to listening to and implementing customer feedback. Ultimately, the customer is all that matters. The reaction we've gotten so far from many users about the new version is that it represents the rapid maturation of our CAM offering. Considering that the price point starts at $0 and maxes out at $4000, when you look at features and prices of other software, there is no comparison," says Max Freeman, VP of Marketing at Alibre.

Alibre CAM is based on MecSoft's VisualMILL line, developed over a 13-year period and used by thousands of companies worldwide, including Exxon, Sanyo, GM, Intel, and many others. With a full

integration into Alibre Design, customers are afforded a complete parametric CAD/CAM solution for a price that cannot be beat.

Anyone wishing to obtain a trial of Alibre Design 12.1 and Alibre CAM 2.0 or wanting to learn about the new features can visit http://www.alibre.com.

About MecSoft Corporation

MecSoft Corporation, a California based company, is a leading developer and provider of affordable CAD/CAM solutions for the CNC machining industry. MecSoft's products are used for manufacturing parts in a wide variety of industries including aerospace, automotive, education, general machining, jewelry, and mold & die. For additional information about MecSoft Corporation please visit http://www.mecsoft.com.

Click here to return to Contents

Altair adds Moldex3D by CoreTech System to its HyperWorks Enabled Community

27 January 2010

Altair announced the addition to its HyperWorks Enabled Community (HWEC) of Moldex3D by CoreTech System Co., Ltd., a developer of professional CAE analysis solutions for the plastic injection molding industry. HyperWorks users can now download the latest version of Moldex3D from the HWEC website at www.hyperworkscommunity.com and use Moldex3D at no incremental cost through their existing HyperWorks software license system. To date, over 295 companies worldwide have joined the HyperWorks Enabled Community.

"CoreTech System is very happy to join Altair's HyperWorks Partner Program to offer its leading true 3D plastics injection molding solutions, Moldex3D, to Altair's global customer base," said Venny Yang, President of CoreTech System. "By leveraging the mutual strengths of HyperWorks and Moldex3D, Altair customers can obtain high quality simulation results efficiently and effectively without any additional cost. Manufacturing companies will be able to simulate the most advanced processes to optimize their product design and manufacturability and maximize their return on investment."

Moldex3D is a leading CAE product for the plastics injection molding industry. With advanced analysis technology, Moldex3D provides in-depth simulation of a wide application range of injection molding processes to optimize product design and manufacturability, shorten time-to-market, and maximize product ROI. Among the Moldex3D product lines, eDesign is suite of tools that allows users to simulate parts and mold designs before manufacturing begins and Solid/Shell is a complete series of advanced engineering simulation tools for in-depth analysis and optimization of the most advanced molding processes.

"Altair is excited about this new partnership with CoreTech System. The addition of Moldex3D extends our portfolio of solutions, providing our customers with an easy to use, robust and cost effective CAE technology for plastics injection molding", said Michael Humphrey, Executive Vice President, Global Partner Programs for Altair. "We have observed the recent surge of Moldex3D usage throughout the world and look forward to helping further accelerate their market share position."

HyperWorks is a suite of enterprise analytic applications that includes statistical, database, visualization and simulation software to help companies make better business decisions. Its patented HyperWorks Units licensing technology allows users to transparently share software licenses globally across a broad suite of applications.

The partnership with CoreTech System brings the total number of applications available under the HyperWorks platform to 55 including 27 third-party software applications such as Moldex3D. These applications enable users to maximize their current investment in HyperWorks licenses by giving their engineers and designers flexible access to a growing pool of leading technology solutions.

About CoreTech System Co., Ltd.

Since CoreTech System Co., Ltd. (Moldex3D) was founded in 1995. It has provided the professional CAE analysis solution "Moldex" series for the plastic injection molding industry, and the current product "Moldex3D" is marketed worldwide. Committed to provide the advanced technologies and solution for industrial demands, CoreTech has extended the worldwide sales and service network to provide local, immediate, and professional service. Nowadays, CoreTech presents the innovation technology, which helps customers to troubleshoot from product design to development, to optimize design pattern, to shorten time-to-market, and maximize product ROI. To learn more, please visit www.moldex3d.com.

Click here to return to Contents

Aras is First PLM Software Solution to Achieve "Compatible with Windows 7" Status

28 January 2010

Aras® announce that the Aras Innovator suite is the first enterprise PLM offering that is fully compatible with Microsoft Windows 7 and has successfully passed Microsoft's "Compatible with Windows 7" testing. The designation ensures that Aras users at companies around the world can confidently take full advantage of the many advancements and new features available in Windows 7.

Like all Microsoft certifications, rigorous testing and adherence to strict performance and reliability requirements must be verified before an application can officially attain Compatible with Windows 7 status. Aras adds this latest Windows 7 certification to those for Windows Server, .NET, and SQL Server making Aras Innovator the only enterprise PLM software suite to ever have achieved certification on all of the Microsoft platform products.

"Achieving the compatible with Windows 7 designation provides confidence and assurance to our corporate users worldwide," said Aras president, Peter Schroer. "As a provider of enterprise open source solutions, we recognize the benefit of delivering applications that are validated as compatible and reliable on the latest Microsoft operating system platform, Windows 7, for both 32 bit and 64 bit machines."

The Windows 7 operating system offers a streamlined user interface and significant new features that make everyday tasks easier and allow corporate PLM users to get the most out of computers of all styles and sizes. For more information about Windows 7, including specific benefits for enterprise organizations, visit http://www.microsoft.com/windows/

For additional information about the Aras Innovator suite of PLM software solutions, as well as the Aras Unlimited subscription packages, training, and professional services from Aras and Aras partners visit http://www.aras.com

Click here to return to Contents

Autodesk Alias Sketch for AutoCAD Technology Preview Debuts on Autodesk Labs

26 January 2010

The new Autodesk Alias Sketch for AutoCAD Technology Preview is now available on Autodesk Labs. The Technology Preview adds fully integrated sketching, illustration, painting and manipulation capabilities directly into the AutoCAD workflow to further broaden the creative capabilities of AutoCAD software.

Alias Sketch for AutoCAD Technology Preview enables professional designers and artists in many industries to take advantage of the power of Alias technology directly in AutoCAD software. Part of the Autodesk solution for Digital Prototyping, Autodesk Alias Design software is the industrial design standard for communicating top-quality designs easily via sketches, illustrations, photorealistic renderings and animation. The Alias Sketch for AutoCAD Technology Preview provides fully integrated illustration capabilities to enhance the AutoCAD workflow, enabling AutoCAD users to use freehand drawing techniques and assemble multiple images to make a final image.

"Autodesk is driven to enable more effective visual communication and collaboration among disciplines," said Samir Hanna, vice president of Digital Concept at Autodesk. "We look forward to providing our community of millions of users with exciting new creative tools for conceptual design in the context of their familiar AutoCAD environment."

The Alias Sketch for AutoCAD Technology Preview enables designers to modify and create composite imagery, create blank screen illustrations and make freehand markups on top of AutoCAD 3D geometry. Designers can now communicate via illustrations as well as DWG files. For example, AutoCAD users can create artwork or import images on top of 3D geometry to graphically express the context of designs, something previously requiring multiple applications to achieve.

Autodesk is distributing a 30-day trial of Alias Sketch for AutoCAD Technology Preview on Autodesk Labs to engage users and solicit feedback on the technology while it is still in an early conceptual stage of development. Autodesk is offering the free* download of Alias Sketch for AutoCAD Technology Preview starting January 20, 2010. To download the Technology Preview, visit http://labs.autodesk.com.

News Facts

- Autodesk Alias Sketch for AutoCAD Technology Preview adds integrated illustration capabilities and broadens the creative environment within AutoCAD, providing a new tool for designers and CAD engineers to explore concepts, convey design intent and produce design iterations.
- Autodesk Alias Sketch for AutoCAD Technology Preview will be available for free* download on Autodesk Labs starting January 20, 2010.

Resource Links

Autodesk Alias Sketch for AutoCAD Technology Preview:
http://labs.autodesk.com/utilities/alias_sketch_for_autocad

Alias Sketch for AutoCAD Technology Preview Labs Video: Add Building to Existing Site Image:
http://www.youtube.com/watch?v=Ak_HnOAIkiY

Alias Sketch for AutoCAD Technology Preview Labs Video: Alterations to Existing Building Sketch:
http://www.youtube.com/watch?v=j7DuMSd7KxA

Alias Sketch for AutoCAD Technology Preview Labs Video: 2D/3D Consumer Product Concept Illustration:
http://www.youtube.com/watch?v=FqPmorbhTpI

Alias Sketch for AutoCAD Technology Preview Labs Video: 2D/3D Hybrid Architectural Concept Illustration:
http://www.youtube.com/watch?v=ooxXUV5WgLk

Autodesk Alias Design:
www.autodesk.com/aliasdesign

Autodesk Labs:
http://labs.autodesk.com/

Autodesk Labs Blog:
http://labs.autodesk.com

Autodesk Labs YouTube Channel:
www.youtube.com/user/Autodesklabs

Autodesk News:
www.autodesk.com/press

Autodesk Manufacturing:
http://www.autodesk.com/manufacturing

Autodesk Manufacturing Community:
http://mfgcommunity.autodesk.com

Autodesk Manufacturing YouTube Channel:
www.youtube.com/user/AutodeskMFG

Click here to return to Contents

Bentley's Integrated Structural Modeling Brings Structural Engineers Into Integrated Project Workflows

27 January 2010

Bentley Systems, Incorporated announced the launch of its Integrated Structural Modeling (ISM) methodology for creators and consumers of structural project information. With ISM – and new no-cost software apps available for download from Bentley – structural engineers finally can fully participate in multidisciplinary, integrated project workflows. This means they also can take advantage of innovative Building Information Modeling (BIM) best practices to reap significant business benefits for their projects and organizations. ISM's flexible workflows support design review of various structural assets, such as buildings, bridges, towers, and industrial structures, by aggregating information-rich content, in both proprietary and interoperable formats, from multiple data sources. ISM results in intelligent structural designs, more successful projects, and better-performing buildings and structures of all types.

The new apps – consisting of Structural Synchronizer V8i and Structural Dashboard V8i – let structural engineers immediately employ ISM in their integrated projects. Both can be downloaded for no charge at www.bentley.com/getISM.

Structural Synchronizer provides:

•A shared repository of common structural model data;

•The ability to track revisions and compare differences between versions;

•Enhanced coordination through the synchronization of data across products;

•Review facilitated by a structural model and drawing viewer with data interrogation capabilities;

•Integrated applications and data for structural modeling, structural analysis and design, structural documentation and drafting, structural detailing and fabrication, plus industry-neutral formats;

•An open API enabling third-party vendors to integrate with the ISM workflow.

Structural Dashboard enables structural engineering professionals to:

•Manage workflows for common project types;

•Launch all structural applications from a unified interface;

•Create customized workflows specific to individual projects;

•Receive structural news from customizable RSS feeds;

•Join a structural online community and access blogs, wikis, and forums;

•Download product upgrades from the Bentley SELECTserver;

•Manage project files and links within project workflows.

Up to now, a lack of interoperability among software applications has kept most engineers from sharing the maximum business value that can be derived from integrated projects and the BIM best practices required for their successful completion. According to McGraw-Hill Construction's SmartMarket Report 2009 "The Business Value of BIM," almost 50 percent of the AEC industry is now using BIM, and the vast majority of these users, including architects, contractors, and owners, are experiencing real business benefits directly attributable to BIM. Strikingly, however, the study also points out that less than half of the engineers employing BIM experience a positive return on their investment (ROI) – with one-third saying they are seeing a negative ROI. When asked for the top factors that would increase an engineering firm's ability to see business benefits from BIM, 83 percent of the engineers surveyed ranked improved interoperability among software as "highly important."

Bentley's long-standing prioritization of interoperability motivated the company to address this problem and, through its new ISM, bring structural engineers integrated-project benefits. Facilitated by Bentley's new i-model container for open infrastructure information exchange and Structural Synchronizer V8i and Structural Dashboard V8i apps, ISM maximizes the interoperability of structural information among different specialized applications, CAD and BIM platforms, and design review environments. The resulting integrated structural information workflows empower structural engineers to add value to, and now get value from, integrated projects.

Santanu Das, Bentley vice president, Integrated Engineering Group, said, "Integrating the structural project workflow – including modeling, analysis, design, documentation, and detailing – through ISM enables structural engineers, detailers, and fabricators to dramatically improve project efficiency and safety, reduce errors, and enhance quality control. Moreover, it enables engineers to investigate more design iterations and what-if scenarios, and brings downstream processes, such as fabrication, into consideration much earlier.

"Although those using Bentley's intra-operable structural products and dynamic collaboration software will gain the most advantages from ISM, every structural engineer and every project employing this new methodology will realize significant benefits. We've done this to ensure better-performing, more successful projects, and, thereby, help sustain the structural engineering professions."

Das continued, "The breadth and depth of Bentley software, combined with its industry-leading intra-operability, enable our users to analyze, design, document, and deliver structures in an integrated project workflow that maximizes the application intelligence at each step. But with the new ISM apps, project teams ultimately will be able to deploy a wide array of applications from multiple vendors and maintain interoperability throughout the structural project lifecycle. I think all structural engineers should download and start benefiting from our no-cost Structural Synchronizer V8i and Structural Dashboard V8i apps today."

ISM-enabled structural tools currently include Bentley's Structural Modeler (formerly known as Bentley Structural), RAM Concept, and RAM Elements, as well as Autodesk Revit. For additional information about ISM and these products, and to download Structural Synchronizer and Structural Dashboard, visit www.bentley.com/ISM.

Bentley's comprehensive portfolio of software is available through a number of innovative subscription offerings, including Bentley's Enterprise License Subscription, SELECT subscription, and new Passport Subscriptions that provide an affordable alternative to perpetual license purchases for architectural, engineering, and mapping professionals. For additional information, visit www.bentley.com/subscriptions.

Click here to return to Contents

Cadence Software Validated on STARC QA Database to Help STARC Members Ensure Advanced Chip Design Quality

28 January 2010

Cadence Design Systems, Inc. and Semiconductor Technology and Academic Research Center (STARC), the Japan semiconductor industry consortium, revealed an ongoing collaboration to leverage STARC's regression suites to ensure the high quality of electronic design automation (EDA) software for advanced chip design. The regression suites and validation flow were developed by STARC and its member companies to qualify EDA software for use by consortium members.

As part of its mission to assist member companies in evaluating and building their design flows, STARC has developed the validation methodology to test new design software before its members embark on advanced projects.

"One of our most important missions is to help our members ensure the quality and accuracy of their chip design software," said Nobuyuki Nishiguchi, vice president and general manager, Development Department 1 at STARC. "This methodology allows us to accomplish our mission using tests developed by STARC and the members themselves, thereby ensuring the maximum fit with their requirements."

Using common test suites developed and consolidated by STARC, the methodology includes regression tests for large designs to quickly identify differences between new versions of tools. Test results are stored in STARC's quality assurance database (QA database) and reports are sent to STARC member companies. This process helps designers to quickly build quality flows that are appropriate to their needs. The system currently covers Cadence® Conformal® Constraint Designer and Encounter®

Timing System., Encounter Digital Implementation System's Statistical Static Timing Analysis (SSTA), and Encounter RTL Compiler.

"Mission critical software quality continues to be our number one priority. We're pleased to work with STARC on the software validation flow with real customer designs," said Dr. Chi-Ping Hsu, senior vice president of research and development in the Implementation Group at Cadence. "This collaboration uniquely positions Cadence as the industry leader in quality focus, and ensures that validation and test results are meeting designers' requirements."

Click here to return to Contents

CCE's EnSuite Now Supports JT Format

25 January 2010

CCE announced the addition of JT support to its EnSuite product. JT is a widely used 3D format for product visualization, collaboration and CAD data exchange.

EnSuite offers a complete solution for sharing of product knowledge across the enterprise. All departments in the enterprise including purchasing, manufacturing, quality control, packaging, marketing, customer service and engineering can use EnSuite to access product information stored in the master CAD data file. EnSuite eliminates the need of using expensive CAD systems or viewers and translators to access the product information, irrespective of CAD system in which data was created.

JT support includes part, assembly and PMI information. In addition to JT, EnSuite also supports an extended list of 3D formats including CATIA V4, CATIA V5, NX, SolidWorks, Parasolid, IGES and STEP.

The latest EnSuite update is available to all active subscription license customers as well as to new customers.

For additional information, or to view demo videos and online webinar, please visit http://www.cadcam-e.com/products/EnSuite2.

Click here to return to Contents

Delcam Launches New Release of DentCAD Dental Design Software

25 January 2010

Delcam announced the release of the 2010 version of its DentCAD dental design software. The new release includes a completely new interface, an integrated data management module, an expanded library of standard tooth designs and improved STL file output, as well as a number of enhancements to the design options.

The improved DentCAD interface features a reduced number of toolbars to allow the maximum screen space for design, while the icons have been made bolder and clearer. All of the icons still use graphics specific to the dental industry so that technicians with limited experience of computer-aided design will find the software easy to learn and to use.

The new data management module makes it easier to record the details of the patient and dentist, restoration and material type etc. and enables a smooth process flow between the scanner, DentCAD and the DentMILL machining software.

The location where all the data is saved can be predetermined by establishing a disk location and file name using any of the fields on the patient form. Once this is set up, the user does not have to worry about saving data as this happens automatically at each stage in the process.

Among the design enhancements is the automatic creation of a prep-line as soon as the restoration design is started in DentCAD. The prep-line is the most critical area of the design as it marks the border between the tooth and the gum, and so determines the accuracy of the fit of the restoration. The automatically-generated line can be edited by the user if required.

Another important improvement has made it much easier to shape a set of teeth within a bridge. In previous versions, only one tooth could be viewed at any time. Now, all of the elements within the bridge can be visible at the same time and the user can click from one to another without having to accept changes to each of the individual teeth. This means that the group of teeth can be completed much more quickly and, with the whole bridge visible, a comparison with neighbouring teeth is now possible as each design is developed.

To reduce the chances of failure of the restoration in manufacture or, even worse, after fitting, DentCAD now analyses the finished model and lists any areas where the thickness of teeth fall below a chosen set of minimum parameters. The text descriptions of any problems are reinforced by a colour map. This highlights all the surfaces that fall below the specified requirements to give an even clearer indication of any areas needing to be adjusted.

The key benefit of DentCAD is suited, not only to dental technicians that are already using CADCAM, but also to that that have no previous experience of computer-aided design and manufacture. The whole process is based on a series of intuitive “Wizards” that guide the user through the entire design process.

A wide range of visualisation tools is available at every stage, including sectioning, shading, undercut-checking and fit-verification options that allow detailed inspection of the shape being developed. This ensures that the results are exactly as required by the patient.

The system is also very flexible, so allowing different design options to be developed and compared. For example, key parameters like the margin line and the cement thickness can be varied and the computer model will automatically update to reflect the changes. In addition, sculpting tools let the user add or subtract material interactively, while the dynamic editing tools allow the complete model to be reshaped effectively.

DentCAD offers levels of speed and accuracy that are impossible to achieve with manual methods. Complete restorations can be designed within minutes of importing the scanned data. The completed design can then be supplied to DentMILL or another machining program for the manufacture of the item.

It is expected that many companies will want to use DentCAD alongside DentMILL. However, in keeping with the company’s “open” approach to its software, DentCAD can be used with any combination of scanner, machining software and computer-controlled machine tool.

 *Click here to return to Contents*

ESI becomes a SantosHuman Inc. Authorized Reseller

26 January 2010

ESI Group announced the recent agreement between its North American subsidiary - ESI North America

- and SantosHuman Inc., providing human factors analysis in an interactive digital environment.

ESI North America has become an official reseller of SantosHuman Inc. digital human modeling products and services, and as such handles sales, distribution and training. Santos™ uses biomechanics and physics optimization to predict posture and human motion. With this alliance, SantosHuman Inc. benefits from a recognized partner with an established distribution network for physics-based simulation solutions.

The agreement is also favorable to ESI's customers, who will benefit from a broader range of human modeling solutions and services. SantosHuman Inc.'s software offering is a great addition to ESI's own human modeling offering, as the former is focused on ergonomic applications, among which the prediction of human motion. ESI's offering, on the other hand, provides solutions for Virtual Testing to predict and improve the behavior of industrial products. Above all, those solutions include distorted models of the human body with detailed geometrical and material descriptions of bones, flesh, muscles, ligaments, organs, and others soft tissues. These models enable a detailed analysis of the human body interactions with its environment, and provide a deep insight into its behavior in real life situations, such as transportation security, seat and driving comfort, and orthopedic surgery.

"Virtual tools in manufacturing, design and testing have been around for a number of years and the mechanical nature of simulations are being dramatically improved with new advances in Finite Element (FE) tools and MultiBody Dynamics (MBD) tools", *said **Jay Johnson**, Chief Executive Officer, SantosHuman Inc.* "In ergonomics, the missing link has always been a highly developed human model to predict human movements in the virtual environment. It is where Santos' offer stands out as its solution, incorporating human simulation to the virtual environment, was engineered joint by joint using a biomechanical physics-based optimization algorithm to simulate any and all human capable movement and motions: our patent pending formulation called Predictive Dynamics".

"This partnership will bring together SantosHuman Inc. and ESI's software and expertise to create a center of excellence for human modeling", declared **Michael Bloor**, Chief Operating Officer, ESI North America. "Being the forerunners of human modeling and research and development, SantosHuman Inc. and ESI will provide the cornerstone for the most comprehensive and high-fidelity digital human modeling tools. The partnership is geared towards helping our customers address problems in the design stage thereby saving time and money by delivering the most advanced, easy-to-use human modeling and simulation capabilities in the market."

About SantosHuman Inc.

Santos™ is an intelligent avatar with realistic biomechanical abilities that functions in a physics-based human systems integration and simulation environment, the Santos™ environment. Santos™ conducts human factors studies in design relevant to training, production, or performance needs of real-world military, manufacturing, sports and other domains. This real-time realistic system addresses rigorous biomechanics, gait, motion prediction, and related issues. Santos acts intelligently and autonomously to allow to safely and effectively understand human performance.

Click here to return to Contents

Femap Version 10.1.1 Released

January 2010

Siemens PLM Software announced the release of Femap v10.1.1. Femap 10.1.1 is the latest in 30+

ongoing releases of Femap, all from the same core development team. Femap 10.1.1 also includes NX Nastran 7, the latest release of the industry standard finite element solver, fully integrated. Continuing the visualization theme of version 10.1, 10.1.1 adds the ability to control the visibility of individual solids. Version 10.1.1 also adds a new bearing load, with extensive options to support applying radial varying loads directly to FEA models. Entity selection has been enhanced with direct access to polygon picking with a Ctrl+Shift keyboard shortcut, as well as text-based filtering for more efficient selection of titled entities. The Femap team is already hard at work crafting Femap 10.2, and as always, input from our world-wide customer base is greatly appreciated.

Femap Version 10.1

The v10.1 release focuses on new modeling and interactive visualization tools for increased productivity, and continues to promote Nastran integration, particularly for advanced analyses. Femap 10.1 includes Analysis Manager and Boundary Condition Set Manager enhancements. New display options have been added for multiple groups and FE model entities, with all visibility options consolidated into one dialog. Also, graphics database improvements significantly reduce model file sizes for geometry-intensive model, support for global composite plies has been added, and constraint editing and loads and constraints editing and combination have been enhanced.

Benefits and New Features

Benefits

- Improves productivity with flexible and interactive model display and grouping
- Speeds up analysis model definition with improved analysis setup workflows
- Easier to postprocess composite structural models
- Easier to manage combination load and constraint sets
- Reduces disk space overhead with geometry-intensive models
- Extends postprocessing functionality

New Features

- Interactive multi-group display with combination groups
- Interactive element and FE model entity display
- Enhanced Analysis Manager and internal job queuing facility
- Enhanced Load and Constraint Set Managers and combination sets
- Support for global composite ply
- Support for 2D tensor plot
- Load and constraint enhancements including new torque load option

Click here to return to Contents

Geometric Releases Version 2.1 of DFMPro for Pro/ENGINEER® and SolidWorks®

28 January 2010

Geometric Limited announced the release of version 2.1 of DFMPro for Pro/ENGINEER and SolidWorks® with a number of advancements and a new Injection Molding module, which helps designers check manufacturability of plastic designs within the CAD environment.

DFMPro is an automated DFM review tool facilitating upstream manufacturability validation and identification of areas in design that are difficult, expensive, or impossible to manufacture. It allows quick and in-depth examination of product manufacturability through advanced design rules for manufacturing processes like milling, drilling, turning, sheet metal fabrication, and injection molding.

Some of the highlights of the new version are:

New Injection Molding module with packaged DFM rules derived from well-known industry-accepted best practices. Users can validate the designs to check for uniform wall thickness, recommended rib parameters, appropriate draft angles on core and cavity surfaces, undercuts, thin steel conditions on mold, and many other common rules.

Support for imported models using Geometric's patented Feature Recognition techniques to analyze 3D models independent of the originating CAD system.

Support for assemblies: DFMPro rules can be executed on assemblies, thus significantly reducing the time for execution. All the parts in an assembly can be validated using a single execution.

Additional rules in machining and sheet metal fabrication to improve the extent of automated design for manufacturing reviews .

Support for customization, batch mode operation and automated report generation: Using the DFMPro customization framework, users can write their own rules, execute the rules in a batch mode, and generate reports of DFM analyses without manual intervention.

For further details about the new version, and for a free 15-day trial version, please visit: www.dfmpro.com

Click here to return to Contents

Lectra and X-Rite/Pantone Sign Partnership Agreement to Deliver Integrated Color Technology for Enhanced Design Workflow and Seamless Color Communication

29 January 2010

Lectra announced the signature of a new partnership agreement with X-Rite, the world leader in color management, measurement and communication technologies.

X-Rite, and its subsidiary Pantone, develop, manufacture, market and support innovative color solutions through measurement systems, software, color standards and services. They have extensive expertise in inspiring, selecting, measuring, formulating, communicating and matching color, which translates to better quality and reduced costs for users in a range of industries.

Lectra and X-Rite will provide fashion companies with a seamless solution for color management. This partnership will enhance Lectra's value-added solutions, including Lectra Fashion PLM, Kaledo®, the leading fashion and textile design suite, and Modaris 3D Fit, Lectra's 3D virtual prototyping application. X- Rite technologies that will be highlighted in Lectra solutions include ColorMunki,™, an all-in-one color solution for selecting, creating and controlling new colors and PANTONE® FASHION + HOME color references, and CxF (Color Exchange Format) a file format designed to accurately and unambiguously communicate all commercially relevant aspects of color across devices, applications and geographies. Through the ColorMunki's compatibility and PANTONE FASHION + HOME directly integrated into these Lectra's solutions, creative, development and production teams can easily and accurately manage and communicate colors both internally and with external partners and suppliers.

"We are delighted to partner with Lectra to deliver advanced tools in color communication for the fashion design community," said Iris Mangelschots, Senior Vice President Sales and Marketing, X-Rite. "ColorMunki and Pantone are established standards for brand owners in graphic design for color selection, control and communication. Our partnership with Lectra, a recognized world leader in the

fashion design industry, will extend these same benefits to fashion designers in an efficient, integrated way, connecting yet another integral link along the apparel supply chain."

"Color is critical in design, but it is an expensive business that can be very hard to control. Integrating X-Rite and Pantone technology into Lectra's solutions will provide designers with a tool to enhance the quality and speed of exchanges between design, development and production, while keeping to the company's original design concept as closely as possible," said Daniel Harari, Lectra CEO.

Color is key: overcoming the challenge of capturing, managing and communicating

Close collaboration between Lectra and X-Rite will offer the industry numerous benefits at all stages of fashion and textile development, from conceptual brainstorming and design, to development and production. Finding color inspiration for prints, knits, weaves, trims and other components is always a challenge for designers, especially with the increasingly rapid turnover of fashion trends.

Integrating X-Rite/Pantone technologies directly into Lectra's fashion solutions will make it far easier for designers to capture and manage color. What's more, color communication will be greatly facilitated. Designers regularly face the challenge of communicating their chosen color to team members, sub-contractors and professional partners -- often scattered throughout the world. Now, the right product in the right color can be presented for sale at the right time.

On trend, on color: far-reaching benefits for the whole development process

Superior color management is now possible for both Lectra's current and future customers and allows for rapid validation of a color's feasibility for a specific fabric, reducing the number of lab-dips necessary to develop a product. Because development moves more quickly, the color process becomes more streamlined, allowing for decisions closer to market. Designers then have more flexibility to choose colors that are on-trend while in parallel lowering sampling and production costs. Seasonal color palettes can be shared, so that all merchandising is coherent with the actual collection in progress.

Upcoming: a kaleidoscope of joint events

Webinar:

Pantone's 2011 Spring/Summer color trend forecast to discover the key colors and themes for the season. Learn how to develop trend information into a collection plan with color palettes, fabrics and silhouettes using Kaledo. Presented by Laurie Pressman, Pantone's vice president for fashion, home and interiors, and Anastasia Charbin, Lectra's design solutions product manager. Exclusive to Lectra and Pantone customers, this webinar will take place on February, 3 at 4:00 p.m., Paris time (10 a.m. EST) and 6:00 p.m., Paris time (noon EST). For more information and to register, please visit: http://www.lectra.com/fr/lectra_events/index.html

Tradeshows:

- munichfabricstart, February, 2-4, Munich, Germany.

munichfabricstart is a textile trade convention that showcases equipment, suppliers and fabric specialists from all over the world. Lectra booth: H3 / F04 - Pantone booth: H3 / C00.

- Premiere Vision, February 9-12 2010, Paris, France.

Twice a year, Premire Vision, The World's Premier Fabric Show,™, draws 50,000 professional visitors from 106 different countries to Paris. Lectra will present its latest fashion solutions (booth 5K61) with X- Rite as part of the Mode...Information Suite (5J66).

Lectra will also be presenting "Transforming trends into textiles: design solutions by Lectra" at 10:00 a.m. on February, 10. Pantone will present "Color your future: How to save money and shorten lead times in your color management process from design to production with PANTONE" on February, 10 at 1:00 p.m.

About X-Rite

X-Rite is the global leader in color science and technology. The company, which now includes color industry leader Pantone, develops, manufactures, markets and supports innovative color solutions through measurement systems, software, color standards and services. X-Rite's expertise in inspiring, selecting, measuring, formulating, communicating and matching color helps users get color right the first time and every time, which translates to better quality and reduced costs. X-Rite serves a range of industries, including printing, packaging, photography, graphic design, video, automotive, paints, plastics, textiles, dental and medical.

For further information, please visit http://www.xrite.com

Click here to return to Contents

Mentor Graphics Catapult C Adds SystemC Synthesis and Expands Full-Chip Capabilities

26 January 2010

Mentor Graphics Corp. announced that the Catapult® C Synthesis tool has added SystemC synthesis, expanding the Catapult C tool's full-chip synthesis capabilities. This complements the Catapult C tool's existing algorithmic, control logic, and low power synthesis capabilities and expands its full-chip synthesis application scope through the efficient handling of specific SoC needs such as complex bus interfaces, SoC interconnect and TLM2.0-based ESL flows.

Catapult C support for SystemC source descriptions augments its existing support for ANSI C++ input, allowing high-level synthesis users to choose the industry standard high-level synthesis language that best suits their company's methodology. The Catapult C tool now supports SystemC cycle-based descriptions, and goes beyond traditional solutions by also offering support for transaction-level synthesis.

Dual Language Support Ideal for Full-Chip High-Level Synthesis Methodology

In addition to its well established support of abstract source descriptions in pure untimed ANSI C++, the Catapult C tool now offers an extra level of modeling granularity with cycle-accurate SystemC. This unique dual language approach offers designers a wide range of modeling and synthesis options. The Catapult C tool users now have the ability to express complex interface protocols, such as those found in SoC bus interconnects, using a timed SystemC source while keeping the rest of the design functionality in pure untimed ANSI C++. Designers can also express structure and hierarchy either by using SystemC modules or by inferring them from natural C++ boundaries; such as functions, loops or scopes. The result is a standards-based method where legacy synthesizable SystemC models can easily be leveraged in the Catapult C environment, as well as linked with untimed ANSI C++ sources.

Mentor did not stop with support for timed SystemC as is prevalent in existing SystemC high-level synthesis tools, but also added support for abstract SystemC FIFO communication and TLM-based ESL flows, matching high-level synthesis with ESL practices. Traditionally, SystemC synthesis tools have forced designers into a coding style based on clocks and signals. However, transaction-level modeling has emerged as the most widespread way of using SystemC. Recent surveys indicate that 80 percent of

today's SystemC users favor working on transactional models above the cycle accurate level, and today most ESL activities, such as architecture analysis and virtual prototyping, rely on TLM. By supporting a modeling style compatible with the OSCI TLM2.0 approach, the Catapult C tool offers strong ties with ESL flows, methods and tools—such as the Mentor Vista™ platform—for comprehensive ESL design, verification and synthesis.

"Mentor's decision to add SystemC support to a proven high-level synthesis flow with Catapult C synthesis is very welcome," said Takashi Hasegawa, Deputy General Manager, SoC Solutions Division, Common IP & Technology Development Unit, Fujitsu Microelectronics Limited. "We've made efforts for a long time for the standardization of SystemC, and also anticipate that this addition will enable us to handle an even broader range of application challenges and provide more flexibility in using Catapult C with Fujitsu supplied silicon technology libraries for our mutual customers."

"Mentor's Catapult C tool provides the right balance between detail and abstraction of advantage by dual language. Its cycle-accurate SystemC support gives us fine-grain control over our design and ability to read legacy synthesizable SystemC IP, while its unique support for SystemC-TLM provides the abstraction missing from other HLS tools," said Yoshinao Umeda, President, PRIMEGATE Ltd. "We are confident that Catapult C will have a positive impact on not only our business, but also most of electronic and automotive businesses, and help our customers experience more success with their ESL flows."

"By expanding the Catapult C tool's high-level synthesis language support to include both ANSI C++ and SystemC, Mentor is demonstrating its continuing commitment to standards and interoperability," said Simon Bloch, Vice President and General Manager of the Mentor Graphics Design and Synthesis Division. "In particular, the convergence of SystemC TLM and high-level synthesis will enable the semiconductor industry at large to move up in abstraction and make strides in improving overall design productivity."

About Catapult

The Catapult C Synthesis tool automatically generates control and algorithmic RTL multi-block designs from pure ANSI C++ and SystemC sources. This process gives designers time and freedom to automatically perform detailed design exploration and quickly achieve fully optimized and error-free hardware implementation. By accelerating time to verified RTL without sacrificing quality of results, Catapult C provides the productivity boost required to tackle the design and verification challenges of modern ASIC design.

Click here to return to Contents

MSC.Software Announces New Release of MD Adams Multibody Dynamics Software

26 January 2010

MSC.Software announced that a new version of MD Adams is released and available for immediate download. Enhancements included in this release provide major performance improvements in both modeling and analysis that make it practical for customers to solve larger and more realistic multidiscipline analysis of mechanical systems.

MSC.Adams and MD Adams are widely used and trusted solutions for real dynamics of engineered systems in automotive, aerospace, defense, medical, wind energy, packaged goods, and many other industries. Improving upon this foundation, MSC.Software has further implemented a modernized C++

solver, improved memory utilization, and enhanced integration with finite element analysis (FEA). These enhancements have proven to deliver speed improvements of up to 95% reading results from large models, and as much as a 53% improvement in CPU performance in running analysis on these same models. Solving real multidiscipline problems using flexible bodies from FEA has shown in some cases to deliver an astonishing 700% speedup relative to the previous release.

Other important improvements in the new release of MD Adams include:

Adams/Car plugin module for modeling & analysis of trucks

Adams/Car tools to define model parameters from test data for tires and isolators

Embedded Simulink S-Function controls models via an External System Library

Export of Adams models to Nastran FEA from dynamic operating points

Postprocessing automation support for improved user efficiency

Support for Shell Elements in Flexible Body Contact

Native contact detection for cylinders, ellipsoids, and boxes

The new MD Adams release is available for immediate customer download at the MSC Solutions Download Center. More information about MD Adams can be found at www.mscsoftware.com/Contents/Products/CAE-Tools/MD Adams.

Click here to return to Contents

New ShipConstructor Release Targeted At Enterprise Clients

January 2010

The latest release of ShipConstructor, a 3D CAD/CAM software toolset for the shipbuilding and offshore industries, is specifically targeted for use on large-scale projects. ShipConstructor 2009 is compatible with AutoCAD 2009 and includes numerous enhancements designed to increase efficiency when working with complex 3D product models as well as features aimed at reducing production costs.

64-bit Support

ShipConstructor 2009 will allow 64-bit capability on the Microsoft Windows Vista and Windows 7 platforms. This added capability will allow modelers to load larger portions of the 3D model into a single working session at a greater level of detail with increased program stability.

Democratizing Virtual Reality

Another enhancement is significant improvements involving the creation of 3D Virtual Reality (VR) models. With only a few mouse clicks, any designer can create a detailed VR model from the product model. Numerous visualization options are also available.

ShipConstructor Nest Optimizer improves Material utilization up to 6%.

Improved Material Utilization

ShipConstructor has improved its automated nesting capabilities with the introduction of an enhanced nest optimization engine. Test results have shown clients can expect up to a 6% improvement in overall plate utilization.

Intelligent Distributed System Supports

ShipConstructor 2009 includes a new intelligent Distributed Systems Supports module which is a rule-based program for the creation of distributed system supports such as pipe and HVAC. In line with the company's other efforts to enhance Design for Production (DFP), the software allows an experienced designer to inject knowledge-based rules into the library of supports which are available during the 3D modeling process.

This enhanced module offers parametric design based on a broad range of industry standard supports. Each support is associated with a set of pipes and pipe hangers as well as foundational structure, allowing the support to be constrained and automatically adapt to design changes as the project progresses. This provides a smooth transition from engineering to production.

Effective Design Reuse

Another DFP-based enhancement allows for the standardization of commonly used assemblies, including items such as simple panels, ladders, pipe manifolds, handrails and equipment complete with standard foundations.

In addition to allowing common items to be modeled once and used many times, these Standard Assemblies include the production documentation required for fabrication. The production documents include 3D assembly drawings for each stage in fabrication. When changes are made to the Standard Assembly definition or the related construction documents, all instances where it has been used are automatically changed as well. This reduces the time needed in the design process, especially on large-scale projects.

Space Allocations

This latest version of ShipConstructor provides an intuitive set of tools that allows modelers to allocate space for the various systems (pipe, HVAC, electrical etc.) well before they are modeled. The allocated space is parametrically associated with the wireways in the upcoming ShipConstructor Electrical module. Changes to the allocated space will be automatically propagated to the detailed electrical system model, providing a bridge between the earlier stages of the design process and the final production design.

Click here to return to Contents

Synopsys Expands DesignWare IP Portfolio with MIPI IP Solutions

25 January 2010

Synopsys, Inc. announced the addition of silicon-proven DesignWare® MIPI IP consisting of 3G DigRF Controllers and PHY, Camera Serial Interface 2 (CSI-2) Host Controller and D-PHY to its IP portfolio. The Mobile Industry Processor Interface (MIPI) Alliance defines a set of standard hardware interfaces between mobile baseband processors, RF integrated circuits (ICs) and peripherals typically found in smartphones and multimedia handheld devices. Leading providers of system-on-chips (SoCs) are adopting these standards to improve interoperability and reduce system cost for their next-generation products. Synopsys has more than a decade of expertise in delivering high-speed interfaces, and its DigRF, CSI-2 and D-PHY solutions enable designers of baseband ICs and application processors to quickly integrate high-quality MIPI interfaces into their complex SoCs with less risk.

MIPI DigRF v3 is a low-power, low pin-count interface that simplifies the integration and

interoperability between the RF transceiver IC and baseband IC (BBIC). The six-pin digital interconnect reduces system cost and lowers Electromagnetic Interference (EMI) for dual and single-mode 3GPP 2.5/3G mobile terminals. The silicon-proven DesignWare 3G DigRF IP solution consisting of controllers, dual-mode PHY and verification environments is compliant with the latest standard specification and enables easy integration of the MIPI DigRF v3 standard in both digital baseband and RF ICs. The PHY includes an analog phase-locked loop (PLL) and is developed as a hard IP block to help ensure the integrity of the high-speed clocks and signals required to meet the strict timing requirements of the protocol. Available in advanced 65- and 40-namometer (nm) process technologies, this high-quality solution has been implemented in multiple baseband and RF IC designs.

"As a leading provider of open market ASIC solutions working with multiple foundries, sourcing high-quality IP is key to our success," said Shri Gokhale, chief operating officer at Open-Silicon. "The Synopsys DesignWare 3G DigRF IP enabled us to focus on our core competencies and successfully service our customer with a product that can easily interface with leading RF ICs in the market. As one of the first members of Synopsys' IP OEM partner program, Open-Silicon is able to tightly integrate our engineers with the Synopsys IP engineering teams, allowing for a best-in-class IP integration experience for our customers."

Implemented by leading phone manufacturers, camera sensor vendors and image processor suppliers, the MIPI CSI-2 specification provides an efficient low-power, low pin count interface between camera sensors and application processors. To meet the needs of a wide range of camera sensors ranging from economical low-end to the most demanding multi-megapixel cameras, the DesignWare CSI-2 Host Controller is configurable from one to four data lanes for a total throughput of up to 4 Gbps. Complementing the CSI-2 host controller is the DesignWare MIPI D-PHY, which is a fully-integrated hard macro available as a unidirectional or a bi-directional PHY. The unidirectional configuration is optimized to enable the implementation of very compact and low power CSI-2 host applications. The bi-directional configuration enables a single PHY to support multiple MIPI interfaces, greatly simplifying the development of designs implementing multiple MIPI interfaces such as CSI-2, DSI and UniPro. Delivering up to 1 Gbps per lane, the DesignWare MIPI D-PHY meets the bandwidth demands of today's advanced cameras and display peripherals and is silicon-proven on 65-nm and 40-nm nodes.

"We are seeing an increasing momentum in the adoption of the MIPI Alliance interfaces standards," said Joel Huloux, chairman of the board, MIPI Alliance, Inc. "Synopsys' contribution to the different working groups and established position as a leading IP provider will help strengthen the MIPI ecosystem and further accelerate the adoption of the MIPI interfaces."

"MIPI has become the de-facto industry standard for chip-to-chip interfaces within mobile terminals," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "With the addition of silicon-proven CSI-2, DigRF and D-PHY to the DesignWare IP portfolio, designers can now turn to a single, trusted vendor to help them successfully develop innovative mobile designs using MIPI interfaces with significantly less risk."

Availability

The DesignWare 3G DigRF master and slave controllers and PHY, CSI-2 host controller and D-PHY are available now in leading 65-nm and 40-nm process technologies. For more information, visit: http://www.synopsys.com/mipi

Click here to return to Contents

Synopsys Launches DesignWare HDMI 1.4 Tx/Rx Controller and PHY IP Solutions for 40-nm Process Technologies

25 January 2010

Highlights

- Fully compliant with HDMI 1.4 and High-bandwidth Digital Content Protection (HDCP) 1.4 specifications
- Support for all key features including HDMI Ethernet and Audio Return Channel (HEAC), 3D modes, 4K resolution, additional color spaces and more
- Analog front end supporting up to 20 feet category 2-certified HDMI cables, while maintaining high performance
- HDMI PHY IP available in more than 10 processes from 90-nm to 40-nm

Synopsys, Inc. announced the availability of high-quality DesignWare® High-Definition Multimedia Interface (HDMI™) 1.4 transmitter (Tx) and receiver (Rx) digital controllers and PHY IP solutions that are compliant to the standard specification. With full support for new features of the HDMI 1.4 specification including HEAC 3D formats, real-time content signaling, 4K x 2K resolution and 10.2 Gbps aggregate bandwidth, the DesignWare HDMI IP enables designers to quickly incorporate differentiated functionality into their digital TV (DTV) and home theater applications with less risk and improved time-to-market.

With designers incorporating networking capabilities in next-generation home entertainment devices, the HEAC block in the DesignWare HDMI 1.4 solution helps simplify the connectivity between internet-enabled digital home devices by enabling the transfer of Ethernet and audio frames through a single HDMI cable. The DesignWare IP for HDMI 1.4 also incorporates all 3D formats, which allows device manufacturers to heighten the viewing experience by supporting 3D techniques such as full side-by-side, half side-by-side and frame alternative. The real-time content signaling capability enables televisions to automatically optimize the picture setting with no user intervention. Support for 4K x 2K resolution delivers up to four times the resolution of 1080p, providing the same resolution as state-of-the-art digital cinema systems.

"With a strong focus on innovation, DisplayLink continues to incorporate the latest technologies into our leading network display products," said Jonathan Jeacocke, vice president of engineering at DisplayLink. "When we wanted to incorporate HDMI IP into our SoC, we turned to Synopsys to provide us with a silicon-proven IP solution that had all the required features. We knew that Synopsys, a trusted IP vendor, would be there to not only provide us with a high-quality product, but also the expert technical support if and when we needed it."

The DesignWare HDMI IP solution includes a comprehensive set of IP deliverables including baseline software drivers for system development, which help designers quickly embed this complex interface into next-generation multimedia system-on-chips (SoCs). Furthermore, the solution provides the following:

- Compliance with HDMI and HDCP specifications with certification from the NXP HDMI authorized testing center and successful interoperability results from HDCP plugfest events.

- An analog front end that supports up to 20 foot category 2-certified HDMI cables, while maintaining high performance.
- Digital controllers delivered in configurable RTL allow designers to optimize gate count and power consumption by choosing only the features required in their application.
- PHY offering low power consumption and small die area.
- Numerous optional features such as HDCP encryption engine, audio formats, audio DMA engine and system-bus interfaces which help ease the integration effort.
- System validation based on the Synopsys Confirma TM HAPS-51 rapid prototyping platform.

"HDMI is a rapidly evolving standard that continues to revolutionize digital home theater systems and other portable multimedia devices," said John Koeter, vice president of marketing for the Solutions Group at Synopsys. "Synopsys' DesignWare HDMI IP solutions have been adopted by major OEMs, semiconductor companies, IDMs and foundries worldwide. The availability of the DesignWare HDMI 1.4 digital controller and PHY IP further enables SoC designers and system integrators to introduce the latest features to the market rapidly and with less risk."

Availability

The DesignWare HDMI 1.4 Tx and Rx IP solution is available now. The HDMI PHY IP is available in more than 10 process technologies from 90-nanometers (nm) to 40-nm, and from leading foundries. For more information on DesignWare HDMI IP, please visit: http://www.synopsys.com/hdmi

 *Click here to return to Contents*

Zuken's SolidWorks Integrated Wiring Solution E³.WireWorks Now Available in Canada

28 January 2010

Javelin Technologies, Inc., headquartered in Toronto, has recently been signed as the Canadian reseller of E³.WireWorks, Zuken's latest product for wiring, harness, cable assembly, and panel design that integrates with SolidWorks Premium Routing and PDM Enterprise Solutions.

"Javelin Technologies is a first-rate organization, the many awards they have received for their customer service as #1 SolidWorks reseller for Canada speak for themselves. We look forward to working closely with them to develop the Canadian market," said Tony Cadwell, head of Zuken's E³.WireWorks Indirect Sales Team.

For Javelin, the incorporation of E³.WireWorks into their product portfolio means that they can deliver a more comprehensive solution to their customers.

John Brown, Director of Sales & Marketing at Javelin Technologies, Inc. commented: "E³.WireWorks does for electrical engineers what SolidWorks did for mechanical engineers. It is an easy to learn, Windows-based engineering software suite that enables the electrical designer to focus on optimizing their design project. Our customers will be able to greatly enhance their productivity, reduce errors, and improve the quality of their products."

"Improving design efficiency is paramount for our customers. One of the ways they can do this is to adopt better tools and processes. The integration of E³.WireWorks with SolidWorks is the logical next

step for many of our customers - enabling them to remain competitive in the current tough economic climate," continued Brown.

For more information on E³.WireWorks please visit www.zuken.com/e3wireworks and for further details on Javelin Technologies, Inc. visit www.javelin-tech.com

Click here to return to Contents