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CIMdata News

CIMdata Publishes “CAD Selection Considerations: Complex Geometry”

20 September 2012

CIMdata, the leading global Product Lifecycle Management (PLM) consulting and research firm announces a new paper advising CAD users on the importance of tools that allow them to deal with complex, freeform shapes.

Product aesthetics—characterized by form, dimension, color, and material—can help drive sales by appealing to a consumer’s senses and eliciting pride in ownership. Eye-catching and valued products are commonly composed of sleek, curved silhouettes generated by the product designer modeling sophisticated surfaces. However, the complexity of freeform geometry can be challenging to both the designer and their CAD software, often forcing limitations on the desired product form. When selecting a CAD solution, prospective users must diligently assess their requirements for sophisticated shape definition and focus their choice on a solution that delivers satisfactory results and allows for robust interaction.

This paper, the fourth in a series, identifies and discusses a number of functional capabilities for dealing with sophisticated freeform geometry within CAD solutions that have proven to be critical for leading edge users. The first three papers dealt with geometric model change editing, multi-CAD data, and large assemblies, respectively

“CAD Selection Considerations: Complex Geometry” is available to be freely downloaded from CIMdata’s [Publications web page](#).

About CIMdata

CIMdata, a leading independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design and deliver innovative products and services through the application of

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Product Lifecycle Management (PLM) solutions. Since its founding in 1983, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM-enabling technologies.

CIMdata works with both industrial organizations and suppliers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia Pacific. To learn more about CIMdata's services, visit our website at www.CIMdata.com, follow us on Twitter: <http://twitter.com/CIMdataPLMNews>, or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 (734) 668-9922. Fax: +1 (734) 668-1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495 533 666.

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Simulation in the Cloud: A Path to Democratize Simulation: A CIMdata Commentary

20 September 2012

Key Takeaways:

- *Autodesk Simulation 360 is a distinctive solution that effectively delivers cloud-based simulation.*
- *Innovative delivery and low cost of entry will serve to democratize simulation to a broader base of users and companies.*
- *The cloud can be a simple, cost effective way to deliver simulation resources.*
- *There will continue to be a need for highly utilized internal computing resources for some simulation requirements.*

The importance of simulation is expanding as companies move to full digital product development. Performance assessments using digital prototypes can have immense payback in terms of product development time, cost, and quality. Thus, companies are moving to implement “simulation-driven design,” using simulation early in the design process to develop, evaluate, and validate design concepts. Many of these same companies wish to democratize simulation: making it pervasive, integrated into their product design process, and available to a much larger constituency of users. To do so, they must overcome barriers of complexity (e.g., usability, IT integration, and custom computing resources), accessibility, and cost. CIMdata believes that these barriers are impeding the adoption of simulation at smaller companies. Such companies often do not have the resources and expertise to acquire and maintain an IT infrastructure that includes high performance computing (HPC) clusters for simulation. Moreover, small companies may not have a high enough volume of work: Overall IT costs then rise because of low utilization of software licenses and compute resources.

Some companies are skeptical that remote resources are indeed appropriate for simulation. So, remote solutions for simulation have been available for decades with limited adoption. Service bureaus failed in

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the 1980s as customers acquired their own resources. In the 1990s some companies purchased capacity at National Supercomputing Labs, but that also waned. Grid computing, Software as a Service, and other trends (fads?) have had minimal success in providing simulation resources as a commodity. Early attempts to deliver remote simulation failed because it was difficult to package the large quantity of information and data sets needed for the simulation; the cost and performance of moving simulation input and output over the network, the cost of the dedicated remote computing resources, and the difficulty for simulation analysts to work with or control the information and simulation processes remotely. Now, we have the Cloud. One might well ask, “What’s different this time?”

Internet and cloud technologies and associated costs have changed dramatically over the years. Hosted HPCs using grid, parallel, and linked microprocessor systems provide massive computing power at a fraction of the cost, compared to solutions of previous years. Networks are significantly faster and can quickly transfer larger simulation-related files and other data between user work tools (e.g., desktop or even laptop computers) and the HPC in a very secure manner.

Autodesk has introduced Autodesk Simulation 360, which is designed to deliver simulation via the cloud. Autodesk Simulation 360 reduces the complexity of obtaining and using remote resources for simulation, as well as the price of entry. It provides, in essence, a “pay as you go” resource that is cost effective and simple to access for both simulation analysts and occasional users. Usage is governed by “Cloud Units,” which are consumed when a solution is run. The usage basis is per job, and is not dependent on job size or simulation time (i.e., CPU hours). Autodesk Simulation 360’s advantage is not so much that it is cloud-based, but that it can dramatically lower the barriers to entry for more widespread use of simulation. Companies may access simulation resources easily, and with no additional investment in their local infrastructure for resources such as compute clusters.

Autodesk’s vision is to enable “always on” simulation that can be used to provide guidance as a design is developed.¹ They have provided innovative tools that demonstrate the drive to democratize simulation capability for a wider audience. For example, Autodesk ForceEffect Motion² is an iPad application for static analysis of structures and kinematic analysis of mechanisms. Project Falcon³ is a wind tunnel simulator that accepts geometry in an open format (STL) generated by most modeling systems.

Autodesk Simulation 360 includes much of the capability of Autodesk’s mechanical simulation portfolio, including FEA tools for static stress, linear dynamic analysis, mechanical event simulations, and computational fluid dynamics (CFD) tools for fluid flow and thermal simulations. The Simulation 360 bundle includes desktop licenses and cloud access—solutions that can be run from either place.

According to Autodesk, “Autodesk Simulation 360 complements design applications, allowing for simulations early and often to predict and optimize design performance.” To that end, Autodesk Simulation 360 is well integrated into Autodesk’s desktop simulation applications: Moldflow, CFD, and

¹ CIMdata White Paper. Breaking Down the Barriers to Simulation: Autodesk Broadens Simulation Offerings (March, 2012) download at: <https://plmforesight.cimdata.com/download/index.cfm?download=BreakingDownBarriers&company=>

² For more information see: <http://itunes.apple.com/us/app/autodesk-forceeffect-motion/id512045820?mt=8>

³ For more information see: <http://labs.autodesk.com/utilities/falcon>

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Mechanical. Pre- and post-processing are done on the user's local workstation. There is no practical difference in the workflow whether the actual simulation is executed locally or in the cloud. Importantly, executing simulation in the cloud does not consume local resources, freeing the engineer to continue working on other tasks. Autodesk also points to improved scalability: multiple simulations, perhaps for an optimization, can run in parallel in the cloud versus having to run sequentially on a local workstation. Remarkably, there is no load balancing or job submission application to deal with. Autodesk's cloud implementation is much less complex for the user than most companies' internal compute cluster interfaces. Installation of the desktop thin client is also very simple, with no configuration setup required.

For some companies, data security is an issue and they will not allow any of their data outside their company firewall. Autodesk has addressed the security issue with an ISO 27001-compliant approach. No user data is stored in the cloud, and data transfers involve encrypted transmission of CAE data. This provides enhanced data and IP security with minimal hassle for the end user. Additionally, license entitlement and compliance are managed by the system and are not a user concern. CIMdata believes that many companies will be satisfied by the level of security offered by Autodesk Simulation 360. As with e-commerce, data security concerns will abate with time and experience.

The remaining barriers are the issues of total cost, data transfer times, and the need for special computing resources. Costs will have to be evaluated by the users. Certainly, Autodesk Simulation 360 lowers the entry cost barrier. The business case will depend not only on the cost to a company of provisioning their own resources, but also on their utilization rate of both the hardware and the software. By reducing the upfront investment for simulation, Autodesk helps customers reduce financial risk and achieve faster payback from the use of simulation.

Other factors that may impede adoption of simulation in the cloud are file size and the need for specialized computing resources. Simulation output files are frequently very large, perhaps in excess of 10 GB. Routine transfer of files of this size (over the public network) is not feasible. Also, HPC machines and compute clusters used for technical computing are often specialized, and are not commodity resources. These two factors may put a practical limit on the size of simulations performed in the cloud.

Autodesk Simulation 360 continues Autodesk's initiative to make simulation more accessible to companies of all sizes. It provides Autodesk customers with interesting and innovative options. Autodesk believes that the cloud will change the delivery model for engineering software, fueled by the trends and user requirements for social business collaboration and mobility. However, larger companies tend to have in-house resources like compute clusters and HPC clouds that are highly utilized. CIMdata does not view Autodesk Simulation 360 as a replacement for such resources.

Autodesk Simulation 360 provides a reasonably complete suite of simulation capability in the cloud. Autodesk delivers that capability in a form that is well integrated and which removes the complexity of using remote resources for simulation. The barriers to entry of price and setup complexity are dramatically reduced. Autodesk Simulation 360 has the potential to democratize simulation by making

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simulation resources easily available to a broader range of companies and end users and with a compelling economic value proposition.

Companies that need to expand their use of simulation and to do more simulation earlier during product design and development are candidates for Autodesk Simulation 360. The offering is especially attractive to companies with limited investment and support resources for their simulation and analysis needs.

About CIMdata

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SolidWorks 2013 Launch Event: A CIMdata Commentary

18 September 2012

Key takeaways:

- *SolidWorks 2013 contains significant enhancements.*
- *eDrawings is now available on the iPad.*
- *SolidWorks is not being rearchitected at this time.*

SolidWorks held a launch event for the 2013 version of its flagship SolidWorks CAD solution set on 6 September 2012. The event was attended by a number of analysts and press members who cover CAD and related topics. In addition to functional updates and fixes to SolidWorks itself, the announcement included the introduction of a number of new features and capabilities included in SolidWorks 2013, as well as a pre-announcement of a new product from the company.

Highlighted additions to SolidWorks that were presented include:

- Addition of true conic curves.
- Surface texture mapping using the computer's GPU to increase mapping performance.
- Use of multi-core processors to improve speed when generating drawing views, processing multiple views on a drawing in different cores.
- Perform analyses (meshing and simulation) on local "parts" of an object and allow selective re-

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meshing of part of a model.

- A web-based administrative tool that monitors users' computers to provide administrators with information on performance of users' hardware, users' system configurations, failed sessions (and what failed), how well CAD users are following company design standards, and other factors that affect users' productivity.
- eDrawings markups can be viewed directly in SolidWorks.

New products that were introduced include: SolidWorks Plastics, SolidWorks Electrical, and eDrawings for iPad.

SolidWorks Plastics is intended to support both designers of molds and of molded parts, providing injection part and mold design, as well as validation of both plastic parts and molds. It is a simulation-based product and helps part designers with information on part filling, weld line analysis, air trap discovery, and appropriate gate locations. For mold designers and moldmakers it provides guidance on filling stages, multi-cavity mold layout, and runner placement.

SolidWorks Electrical provides a BOM that combines electrical and mechanical components. It helps product designers in three areas: 1) Electrical designers can work with 2D schematics. 2) Mechanical designers can see electrical information in the context of their mechanical design, create wire harness paths, and can view 3D models of electrical parts to help with interference detection. 3) People who do both electrical and mechanical design can use the Pro version to do all of what is included in both 1) and 2).

eDrawings for iPad provides all of the standard eDrawings features, including model and drawing viewing, examination, and markup from the mobile iPad.

Perhaps the most interesting and least understood announcement built on past hints of a new product. There has been much speculation that SolidWorks was going to replace the SolidWorks CAD software with a new version rebuilt on a kernel other than Parasolid. However, Mr. Bertrand Sicot, SolidWorks' CEO announced that the new product will be complimentary to SolidWorks—not a replacement. It will be targeted at conceptual mechanical design needs and allow data to be moved to SolidWorks for detailed design. The product, apparently not yet named, is targeted to be available in May of 2013.

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Acquisitions

Bentley Acquires Ivara

18 September 2012

Bentley Systems, Incorporated, has announced that it has acquired Ontario, Canada-based [IvaraCorporation](#), a provider of asset performance management (APM) software solutions for organizations in asset-intensive industries, including mining and metals, power generation and utilities, oil and gas, and petrochemical. The *Ivara EXP* solution – a core system mission critical to operations and maintenance, combined with a proven implementation methodology and the [Aladon Network's](#) seasoned reliability practitioners – helps owner-operators to obtain the best performance, reliability, and safety from their assets. APM software supplements and leverages value in transaction-oriented enterprise asset management systems such as IBM Maximo and SAP EAM by helping to build and implement asset-specific reliability strategies. *Ivara* is an IBM Member-Level Partner with Certified Ready for Tivoli integration as well as an SAP Software Solution Partner with SAP Certified - Powered by NetWeaver integration.

Business benefits of *Ivara EXP* include maximized availability and utilization; reduced operational costs; extended asset life; structured compliance with safety, environmental, and other regulations; and the systematic capture and application of asset performance knowledge and industry best practices. *Ivara EXP* also provides dashboards for asset health monitoring, allows organizations to understand and manage the risks associated with equipment failures, and turns the volumes of operational data into actionable information, enabling timely and accurate maintenance decisions.

With this acquisition, Bentley extends its [AssetWise](#) asset lifecycle information management software and services to comprehensively improve asset performance, providing new value-adding opportunities not only for owner-operators, but also for the engineering/procurement/construction firms who design, build, and commission their infrastructure. The ROI driver of enhanced performance for existing assets is underscored by the [Bentley Infrastructure 500](#) tabulation of Top Owners – whose net infrastructure investment is cumulatively valued at over 14 trillion dollars!

Bentley Systems CEO Greg Bentley said, “When I first visited *Ivara* and, of course, took notice of the “Work Smart” logo in their offices, I soon realized that this was not just words and graphics, but a touchstone of the company culture – consistent with *Ivara's* heritage, since 1996, of growth and success. Now all of us as colleagues are enthusiastic to share our Bentley Systems’ objective of ‘Working Smarter, Together’ – with each other, our users, and with innovative technologies – to enable infrastructure to perform better and more safely for constituents, now especially through operational excellence and reliability.”

This marks Bentley’s second acquisition in the operations arena this year, the first being [InspectTech](#) for

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transportation asset management. *InspectTech* software-as-a-service, the market leader in inspection and bridge safety, helps owner-operators to plan, collect, and manage inspection results, and to meet asset management mandates.

Greg Bentley continued, “The *Ivara* acquisition may be our most significant in years, because it creates an unprecedented opportunity for us to leverage information mobility – not only within but between CAPEX and OPEX, by way of our *ProjectWise* and now-expanded *AssetWise* platforms, with shared services for asset lifecycle information management. Although increasing proportions of owners’ expenditures have been applied towards respectively accumulating engineering, and operations, information, to date this investment has yielded limited returns due to what we might call ‘information mortality’: data stranded in place until it becomes useless. But with *Ivara* and our resulting APM focus we are today accelerating *information mobility* – in terms of the amounts and types of information productively reused – by software innovations ranging from *interactive inspections* to *health modeling*, which apply consumer-driven technology advances to ‘industrialized’ projects and environments.

“The asset performance management opportunities created by information mobility pertain equally to *integrated-project* engineers whose *information modeling* deliverables and expertise can contribute in new and innovative ways to operating reliability and safety – as also to teams in operations and maintenance, where lifecycle reliability experience data, such as failure modes and effects analysis, can be structured to drive better designs. Working smarter, together, we can now make the world more productive and safer by ensuring with integrity that the right information is securely accessible at the right time, for the right purpose, throughout the design, construction, operations, and maintenance of *intelligent infrastructure*.”

Paul Marshall, formerly CEO of *Ivara* and now Bentley vice president, asset performance, said, “All of us at *Ivara* look forward to working with our new colleagues at Bentley to redefine the scope of asset performance management. Through *Ivara EXP*, *AssetWise* will now be able to uniquely link as-designed, as-built, and as-operated information models. Advantages to owners will include new capabilities to transform engineering data into actionable reliability strategies that better control and operate equipment as intended and as learned, and to take full advantage of information mobility through immersive and interactive 3D models in safer training, inspections, and maintenance. EPCs will benefit by virtue of more valuably leveraged ‘hands-on’ commissioning deliverables, and ultimately through the feedback of APM operations intelligence, in turn.

“*Ivara* users and prospects will benefit in particular because Bentley’s unmatched global coverage and resources include access to in-country experts to facilitate worldwide implementation of our unique APM solutions. Finally, Bentley’s broad reach to owners across all domains of infrastructure can now bring the best practices of APM from owner-operators of the largest and most mission-critical plants to all types of infrastructure assets of every scale, for new levels of operational excellence.”

Andy Chatha, president and CEO, ARC Advisory Group, said, “In today’s increasingly competitive landscape, owner-operators are faced with a number of complex challenges. Chief among them are improving performance and reducing costs while preserving the environment and plant safety under

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constrained financial and human resources. Bentley's acquisition of *Ivara* is a very positive step towards enhancing owner-operators' returns on their investments and further incentivizing them to make additional investments in infrastructure to help sustain long-term economic growth around the world."

Paula Hollywood, senior analyst, ARC Advisory Group, said, "Asset performance management has many dimensions including proactive maintenance, risk mitigation, environmental, health and safety concerns, and reliability. Achieving these goals requires a collaborative information exchange in order to manage critical issues and constraints while simultaneously improving asset availability and utilization. To be effective, they need an asset information management system that can deliver complete, accurate, timely, and most importantly actionable information for all APM stakeholders, internal or external to the organization. The acquisition of *Ivara*, a leading APM vendor, by Bentley Systems demonstrates that Bentley fully understands the challenges facing the infrastructure community at large. Moreover, it uniquely positions Bentley to deliver solutions that enable owners of capital-intensive assets to design reliability into systems."

Redefining APM: Representative Opportunities

Among many application areas that will be catalyzed by information mobility spanning engineering and operations/maintenance, initial priorities for *AssetWise* APM software development include:

- (beyond inspection): "*interactive inspection*" – to revolutionize labor and information productivity in this essential activity, where to date IT hasn't progressed much beyond capturing in "blobs" the same unsearchable text that static paper workflows required, resulting in the same wasteful "information mortality." Rather, each interactive inspection assignment can and should be APM-guided to efficiently identify salient and structured observations specific to the location, recent and historical conditions, knowledge of failure modes, and risk assessment of each unique instance of equipment and structure. Interactive inspection will increasingly take advantage of immersive information mobility technologies combining, as appropriate, smart mobile devices; dynamic forms; as-maintained 3D "hypermodels" to navigate via interactive callouts in context for design and construction drawings, specifications and maintenance instructions, safety animations, and more; and convenient capture of 3D point-cloud imagery for trend differencing. Intrinsic "hands-on" positioning and authentication technologies will assure efficient routing and safe access, confirm accurate tag and location identification, and dynamically index inspection observations to the correct asset lifecycle information records – for compliance reporting and configuration management.
- (beyond asset health monitoring): "*health modeling*" – to enable design engineers to participate in prescribing and interpreting the otherwise often overwhelming extent of "real-time" asset health monitoring data streams. To dramatically expand upon a current *Ivara EXP* use case of vulnerable process piping configurations – where corrosion and wear unpredictably change not only flow characteristics but also structural strength – the pipe stress analysis from design can, to start with, be used by engineers to recommend the most effective sensor locations. Then the resulting regularly sampled observations – of, for example, sectional deflections and strains – can be compared within the design engineers' pipe stress analysis model to "inversely" solve for the re-calibrated as-operated (deteriorated) structural parameters of each pipe section. Finally, the design engineers can regularly re-analyze the as-calibrated parameters, again reusing their design model, to assure that safety margins are never compromised.

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Company News

2012 Tekla North America BIM Award Winners

17 September 2012

Each year Tekla hosts a North America BIM Award competition open to all Tekla users who have modeled projects with the software during the preceding year. The BIM Awards competition is held in conjunction with Tekla's Annual North America User Meeting, which this year took place in Orlando, Florida, August 15-17.

Tekla's annual model competition attracts a growing number of submissions each year. Models were submitted for judging in three categories:

- [Category 1 – BIM](#)
- [Category 2 - Steel](#)
- [Category 3 - Concrete](#)

Participants submitted web models using Tekla BIMsight , descriptions of their projects, photos, and other supporting material. Online voting opened to the public prior to the 2012 Tekla North American User Meeting. The top projects then went to a panel of three judges: Jochen Teizer, Associate Professor, Georgia Institute of Technology; Stephen Jones, Product Manager, Tekla BIMsight; and Jim McCartney, Segment Manager at Trimble Navigation Limited.

The winners for each category were announced at a special award dinner Thursday evening. Congratulations to the following winners!

View these winners at: <http://www.tekla.com/us/Documents/BIM-awards-2012/winners.html>

Category 1 Winner - BIM – CSD Services

Houston Dynamo Stadium, Houston, Texas

Multi-use Sports Arena - BBVA Compass Stadium, new home to the 2-time Major League Soccer Champions the Houston Dynamo, is a multi-use arena to serve a professional soccer team, a local small college football team and other venues, including concerts. It is located in downtown Houston with a seating capacity of 22,000 with thirty-six luxury suites.

The superstructure is structural steel with an upper bowl consisting of pre-cast seating along the sidelines and aluminum seating at the end zones. The skin of the structure is very unique expanded

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aluminum façade supported by secondary white tube steel that is supported by the primary steel structure. As the picture indicates, this is a unique structure which combined structural steel, precast concrete seating and aluminum plane seating [Tekla User] coordinated with several different trades, each using different shop drawing methods; Space Frame Skin Support - SDS software, Precast - AutoCad 2000, Aluminum Bleacher Seating – Old School Hand Drafted.

An engineer's design model was used to create a Tekla model in which an SDS 3model was imported along with precast and seating supports manually added. This Tekla model was used by "Peterson/Beckner" to produce an erection plan along with pick points on trusses, by contractor for scheduling, sequencing, etc. all combined with limited space and a very aggressive schedule of fourteen months, from demolition of existing roads on site to substantial completion, the project was complete for the scheduled first home game, which the Dynamo won

Category 2 Winner - Steel – Structural-Heavy Steel Construction, Winnipeg Investors Group Field, Manitoba, Canada

Canadian Football Stadium - The Investors Group Field is composed of 9000 tons of steel, 28,000 cubic meters of concrete, 3500 sections of hollow main floor, 450 pieces of precast bleachers, 272,000 blocks, 8 acres of room, 33,500 seats expandable to 40,000 for major events, including Grey Cup and other major international events and concerts. The stadium arch trusses supporting the 8 acres of roof are the largest and highest in Canada, spanning 620 feet and approximately 200 feet in the air. They weigh 950 tons each. All steel pieces were detailed in Tekla Structure with great efficacy.

At the end of the project, we ended up with 8,600 shop drawings, 5000 for the bowl and 3600 for the roof. Some truss connections were so complicated that it was not possible to draw them on paper. The engineering firm, Walter P Moore, used our model to make the connection concept and transferred us the Tekla information so we could complete the 3D. The camber of the trusses was also a big challenge but good communication between our team and the project engineer enabled us to input everything into the model, therefore preventing problems in the field. We inputted in our Tekla model all the cast-in-place concrete and precast that could affect our steel for coordination. We have also shared the model with Walter P Moore to input the deck in Tekla to prevent any misfit in the field.

Category 3 Winner - Concrete – KGS Group
Manitoba Hydro Spillway Replacement, Manitoba, Canada

Power Generating Station Flow Control Structure - The Manitoba Hydro Spillway Replacement project is an innovative spillway replacement project currently under way. This project involved major earthworks and cast in place components including 30,000 m³ of concrete and 145 tonnes of reinforcing steel.

The estimated total cost of this project is \$300 million. This is a pilot project for Manitoba Hydro to fully explore the use of BIM for large scale Hydro projects. KGS Group selected Tekla as the optimum

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tool to perform the cast-in-place modeling and deliver the construction drawings. This was KGS Groups first cast-in-place project design & detailed using Tekla Structures for reinforced concrete. The coordination of this project fully utilized Tekla IFC, DWG and BIMsight exports to coordinate with the client and other sub-contractors.

Many inp and db files were customized to meet the Canadian Rebar standards, industry specific profiles were created as well as creating a full metric cast-in-place environment. Custom templates were created to associate the Canadian Standard Bend Types with the Tekla Structures internal shapes. The rebar/concrete model, drawings, and schedules were completed by 3 Tekla users, with this being the first project for 2 of the users, while the structural steel was detailed by KGS Groups experienced steel detailing department that consists of 7 users.

Honorable Mentions

Barton Malow gained special recognition for exemplary BIM collaboration in John and Mary Brock Football facility, a climate controlled, closed practice facility for Georgia Tech's championship football team. Also, JPW Structural Contracting's Spire Truss at Sutter Medical Center in Castro Valley, California, received an honorable mention for the steel category. The honorable mention in the Concrete Category was given to Ambassador Steel for their model of University Of Alabama Science And Engineering Building in Tuscaloosa, Alabama.

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Bentley Extends Commitment to Siemens PLM Software's Parasolid, D-Cubed and JT

19 September 2012

[Siemens PLM Software](#) has significantly expanded its long-standing software license agreement with Bentley Systems, Incorporated. The expanded agreement, which adds licensing for two new software component products, enhances Bentley's ability to more widely deploy the [JT™ data format](#), and strengthens the long-term commitment of both parties to the continued support of [Parasolid®](#) software and [D-Cubed™](#) software throughout MicroStation® V8i (SELECTseries)-based software applications. It also reinforces the growing presence of these versatile software components in the architectural, engineering and construction (AEC) software industry.

“Our MicroStation software is used by engineers, architects, geospatial professionals, constructors, and owner-operators to design, model, visualize, document, map, and sustain the world's infrastructure,” said Harry Vitelli, Bentley vice president, MicroStation and ProjectWise Products. “These professionals count on us to supply software with robust functionality and unsurpassed reliability. They also want open solutions that don't impede their ability to collaborate and interoperate with their other suppliers and business partners. That's why our relationship with Siemens PLM Software is so important. Our decision to expand and strengthen that relationship is based on the excellent support we receive from their people and the world-class quality of their software.”

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Bentley added Parasolid Bodyshop and D-Cubed Profile Geometry Manager (PGM) to the list of component solutions it licenses from Siemens PLM Software. Through the ability of Bodyshop to “heal” imperfect 3D geometry imported from third-party CAD systems, Bentley can enable MicroStation users to significantly improve the reliability and usability of geometry received from its suppliers, customers and business partners.

JT enhances MicroStation interoperability

In addition to the new software added to its licensing agreement, Bentley is also expanding its commitment to Siemens PLM Software’s JT data format, which is widely used throughout the world for accurately, securely and efficiently sharing mechanical 3D information among multiple organizations and throughout an entire manufacturing supply chain. Bentley can now deploy JT more widely, making it available in every MicroStation V8i (SELECTseries 3)-based product and providing these MicroStation users with an enhanced ability to share mechanical computer-aided design (MCAD) 3D geometry.

One example of how Bentley will use JT to enhance interoperability is in its OpenPlant process plant design software. When using solid modeling technology for machine design, it is normal to require integration with process design software for installation and hook-up details. OpenPlant employs MicroStation technology to provide a seamless interface, allowing for the reception and output of data in JT format. Firms, such as P&G, use this method on projects to enhance interference detection and design review, providing their organizations with a competitive advantage. And recently, the design and engineering functions of the Siemens Energy Fossil Power Division based in the U.S.A., India, and Germany selected OpenPlant for 3D design, citing interoperability as an important factor.

“The interoperability provided through OpenPlant with its MicroStation foundation and the ISO 15926 open data model enables us to both protect our investment and reuse our design models, all while achieving greater productivity across our disciplines and project phases,” said Dr. Oliver Hoffman, Application Compliance manager, Siemens Energy.

Due to the widespread adoption of JT throughout the product lifecycle management (PLM) software industry, the JT file format reference document has already been accepted by ISO (the International Organization for Standardization) as a Publicly Available Specification, and a formal process is underway to establish the JT format itself as an ISO standard for lightweight 3D data.

Growing presence in AEC software

Parasolid and D-Cubed software components have been the leading solutions of their kind in the MCAD market for many years. However, their presence in the AEC software market has been growing significantly and today’s announcement further reinforces that trend.

“Siemens PLM Software is committed to providing our customers with excellent products and services and promoting an open business policy,” said Paul Sicking, CTO, Siemens PLM Software. “So when we are able to expand and strengthen our relationship with one of our long-standing customers, it serves to

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validate our success; and when that customer is an AEC industry leader like Bentley, it is especially gratifying. Bentley is an important influence on the growing adoption of our component solutions in the AEC market.”

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Comet Solutions® Expands Its Presence in China

17 September 2012

Comet Solutions, Inc. is pleased to announce the opening of a Representative Office in Shanghai, China. Comet is now authorized to engage in product/brand promotion, market research, staffing, and other activities in China to support its increasing business in the world's fastest-growing large economy. Comet Solutions is also pleased to announce the appointment of Wengang "Mike" Xiao as China Country Manager. Xiao will be responsible for the company's operations in China and will work in collaboration with Comet's distribution partners to drive revenues.

Comet's business in China grew more than 200 percent in 2011, serving high-profile customers such as Tangshan Locomotive and Shanghai Institute of Technical Physics.

"Through our experience with our distributor T-Solution, we have seen great potential in the China market for Comet software," said Dan Meyer, President and CEO of Comet Solutions. "Our business has grown to the point where having an office makes sense to best establish our brand and work more closely with partners and customers. We are now in position to expand our China sales channels and vertical markets served, while building on a stronger relationship with the team at T-Solution."

Mike Xiao, a graduate of Hubei University, brings 12 years industry and sales management experience to his position as China Country Manager. Xiao previously served as China Channel Manager for MSC Software and Senior Sales Manager for PERA Global (ANSYS-China). At MSC Software, he managed more than 40 resellers and industry solution partners.

"Companies in China are eager to take advantage of advanced CAE and make it a best practice," Xiao said. "However, in China, there is limited expertise so simulation itself has to be easier to use for the less experienced engineer. I find the Comet approach of simulation through intelligent templates to be the leading solution that will reduce barriers preventing China companies from using CAE."

Expanding the availability of its software in the Asian market is a stated growth strategy of Comet Solutions. In June, the company announced a partnership with the JSOL Corporation through which JSOL's Engineering Technology Division will sell and support the full suite of Comet products in Japan.

About the Comet Solutions China Office

The Comet China office is located at Shanghai Zizhu Hi-tech Park, Room 104, No. 6 Building,

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Dongchuan Road 555, Shanghai City. The Shanghai Zizhu Hi-tech Park is a well-known location for many of the world's leading companies, including microelectronic technology, software technology and digital media technology. A number of well-known enterprises, including Intel and Microsoft, have established residency at Shanghai Zizhu.

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EMA Announces New Displaced Workers Training Program

19 September 2012

[EMA Design Automation](#), has announced its new Displaced Workers Training Program. This program provides free Cadence OrCAD training to out of work engineers and designers who are currently seeking employment. “We created this program to offer assistance to those looking for an edge in this fiercely competitive job market,” said Manny Marcano, president and CEO of EMA. “Getting up-to-date training with the latest OrCAD and Allegro tools gives engineers more options when applying for new positions.”

All EMA training classes are taught by professional instructors with many years of hands-on industry experience. Instructors guide students through the latest design techniques and features within the OrCAD PCB design tools. Because of the widespread presence of OrCAD within the industry, engineers with this training will have a definite advantage in this difficult job market. Also, employers will recognize the value of applicants having the most up-to-date knowledge in these universal tools. Dwayne Riley, a student in the pilot program, describes this in his job seeking experience, “I make sure to point out in interviews that I took these classes. I think it’s going to be a great card for me in my job search and that’s why I pursued it.”

Classes are offered in select cities, and if students are unable to attend classroom sessions, training is also available virtually. EMA's virtual classroom training is completed over the Internet with a live instructor. The classes currently offered include: OrCAD Capture, OrCAD Capture CIS, Analog Simulation with PSpice, OrCAD PCB Editor (based on Allegro Technology), PSpice Advanced Analysis, and Advanced PCB Editor.

“EMA is thrilled to offer this new program and expects students who complete the courses to see many benefits in their job search,” added Marcano. “We encourage those who qualify for the program to apply online for consideration. You will be asked to submit a current resume to validate employment status and to fill out a short form.”

For more information about the EMA Displaced Workers Program, please visit <http://www.ema-eda.com/DisplacedWorkers> or call 800-813-7494.

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EOS and IMDS Join Forces to Create Breakthrough Medical Products

20 September 2012

EOS is joining forces with Innovative Medical Device Solutions (IMDS). Together they offer customers, including industry-leading orthopedic and spine surgeons and implant companies, extensive product development resources for creating novel metal additive manufacturing (AM) designs.

This partnership will allow IMDS to manufacture products with patient-benefiting features that are made possible with the use of AM technology.

“Until now, using AM for medical devices was considered a high-technology novelty done on a few implants, but mainly used to make quick metal prototypes,” says Dan Justin, Chief Technology Officer for IMDS. “However, recent advances—such as increased materials choices, enhanced manufacturing precision, and faster build speeds—have made medical product developers worldwide more willing to co-invest in developing implants made by laser-sintering systems. This partnership marks the most comprehensive resource alignment between contract medical device development and metal additive manufacturing expertise available to our industry.”

EOS offers decades of experience designing and manufacturing laser-sintering systems that can create high-quality prototypes and end-use parts. IMDS specializes in partnering with medical device customers to develop and produce new implant and instrument systems. The company has recently added the latest-generation EOSINT M 280 direct metal laser-sintering (DMLSTM) systems to its already industry-leading product development and manufacturing capabilities across the U.S.

In response to requests by major medical product developers, EOS and IMDS have begun investigating partnerships with leading companies to bring out products that could only have been imagined previously.

"Our laser-sintering technology has opened up a door for developers who have formerly focused on subtractive processes," says Andrew Snow, Regional Sales Director, EOS of North America, Inc. "Instead of being constrained by traditional technology, engineers and medical professionals are now free to explore a world of new designs—perhaps with varied porosity built in, or features nested inside."

For example, most titanium implants are currently manufactured by subtractive machining, followed by adding a porous coating. Now, some implants under development are being built one 20-micron layer at a time on high-precision DMLS machines. Each finished product is a functionally gradient single piece that transitions from a precisely shaped porous structure to a less porous, more solid load-bearing structure—a design with significant performance benefits that is not practical to undertake with traditional processes. Other designs in development include patient-specific surgical guides for

placement of pins, saws, and drills.

In the long term, the partnership will also provide orthopedic companies with a more cost-effective design-to-manufacturing pathway for customized implants—for instance, ultra-thin, bone-conserving hip, knee, and shoulder joint bearing implants—digitally designed from patient CT scans. DMLS can build medical products from regulatory approved implant materials such as stainless steel, cobalt-chrome, or titanium alloys.

The two companies will exhibit at the North American Spine Society (NASS) 2012 Annual Meeting (Dallas, Texas, Oct. 24-27), where IMDS will showcase the EOSINT M 280 and laser-sintered display pieces in IMDS booth # 2821. Also on display are parts created with software from WITHIN, an EOS partner and IMDS collaborator, which provides significant design-driven manufacturing capabilities to the overall e-Manufacturing solution. WITHIN Medical software optimizes the design of innovative lattice structures. www.withinlab.com

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Hawk Ridge Systems Adds CAMWorks to CAD/CAM Portfolio

20 September 2012

Hawk Ridge Systems has partnered with Geometric Americas, a subsidiary of [Geometric Limited](#), to resell CAMWorks®.

Launched in 1997, CAMWorks is the solids-based CNC programming solution designed to operate in [SolidWorks](#), and offers parametric, knowledge-based machining capabilities with full tool path associativity to the solid model. The tight integration enables storage of CAM data within the solid model part file reducing file management and eliminating the need for time consuming solid model file transfers between CAD and CAM packages. In addition, the CNC programming menus are accessible within the familiar SolidWorks interface, making CAMWorks one of the easiest tools to learn and use. The first Certified Gold Product Partner, CAMWorks runs within SolidWorks or as part of a stand-alone cost-effective CAD/CAM package. The latest innovations in CAMWorks, together with SolidWorks excellence in 3D design, permit manufacturers to engineer, design and build better products faster and more accurately.

As Dale Ford, P. Eng and Chief Operating Officer of [Hawk Ridge Systems](#) says, “Our partnership with Geometric, and the opportunity to sell and support CAMWorks is a natural extension of our ability to provide innovative and comprehensive product realization solutions to our customers. We have been working with CAMWorks for years, and our users are extremely pleased with the integration with SolidWorks. After all, it was written expressly for SolidWorks and has the same track record for advanced functionality and ease-of-use that SolidWorks has. By pairing SolidWorks and CAMWorks, we bring the best of CAD/CAM solutions to the market. Hawk Ridge Systems will also be providing one of the largest teams of Certified CAMWorks Support Technicians in North America.”

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[CAMWorks](#) takes away the drudgery of CNC programming with intelligent machining through automation. It eliminates hours of complex programming through Automatic Feature Recognition (AFR) that recognizes prismatic machinable features, while the TechDB™ (Technology Database) defines machining operations to automatically generate accurate tool paths at the click of a button. CAMWorks machining modules include: 2 ½ Axis Mill, 3 Axis Mill, 4/5 Axis Simultaneous Machining, Turing, Mill-Turn, and Wire EDM.

“CAMWorks is one of the fastest growing CAM products in the market and we are thrilled to partner with Hawk Ridge Systems to provide the same great value to an even larger user base,” says Sameer Kondejkar, Sr. Director and Business Unit Head of GTS, Geometric. He adds, “Geometric and Hawk Ridge Systems share the same vision and we are confident that the combined value proposition of an integrated CAD/CAM solution will contribute immensely in the success of our customers.”

For more information on Hawk Ridge Systems, please visit www.hawkridgesys.com or call 877.266.4469 in the United States and 866.587.6803 in Canada.

For more information on CAMWorks, visit <http://www.camworks.com/>

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Ideate Earns Autodesk Simulation Specialization

18 September 2012

Ideate, Inc. (ideateinc.com), an Autodesk Authorized Developer and an Autodesk solutions provider offering software, training, support and custom consulting services to the architecture, engineering and construction (AEC) and media & entertainment (M&E) industries, has announced that it has earned the new Autodesk Simulation Specialization designation for value added resellers (VARs) from Autodesk, Inc.

As an Autodesk Specialized Partner, Ideate Inc. has shown that it has made significant investment in its people, has a solid business plan specific to this specialization area, has customer references, and can provide a high level of knowledge, experience and support to customers in the AEC and M&E industries.

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

“Ideate is a strategic partner in solving customer’s business issues and challenges, especially as they relate to successful adoption and implementation of BIM technology. The Autodesk Simulation

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Specialization underscores our commitment to helping customers perform simulations, optimize design choices and test innovative concepts early in the design process,” said Ideate President Bob Palioca. “We are delighted to add this designation to our Autodesk Consulting Specialization, Autodesk Structural Engineering Specialization, Autodesk Product Support Specialization and Autodesk MEP Systems Specialization designations.”

For more information visit www.ideateinc.com

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IMAGINiT Technologies Offers Subsidised Training to Australia’s Construction Industry

19 September 2012

Rand Worldwide has announced its [IMAGINiT Technologies](#) division is providing subsidised BIM training to members of the Construction Industry Training Board (CITB). As a CITB authorised Training Provider, IMAGINiT is currently offering the following courses as CITB-subsidised courses: *Introduction to BIM*; *Revit MEP*; and *Navisworks*.

“We’re proud to be offering subsidised BIM training to CITB members as we truly believe an organisation’s most valuable asset is their people,” says Michael Lachs, managing director - Australia, IMAGINiT Technologies. “Our combination of top-tier instructors, best in class curriculum and real world examples, ensures students will maximise their learning in every session.”

The pervasive adoption of BIM across Australia is changing the way the entire construction industry collaborates and builds projects. Even on a global scale, governments such as Singapore are mandating BIM for all of the government building projects in the country. The Australian government is addressing the human element of this technology shift by subsidising BIM training. Helping prepare construction workers for the skills necessary for the BIM revolution is simply taking smart action to help ensure a sustainable economy.

IMAGINiT provides a full range of public and custom in-house CAD training courses. In fact, IMAGINiT’s expert-led classroom-based, live online, on-demand, and private class options are some of the most comprehensive and flexible in the industry. To review IMAGINiT Technologies’ full range of training options please visit www.imaginit.com/training. For additional information call 1300 667 263, email marketing.au@rand.com or visit www.imaginit.com.au.

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initial.aec Earns Autodesk Consulting Specialization

14 September 2012

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initial.aec, an Autodesk Silver Partner celebrating over twelve years in the AEC industry, has announced that it has earned the new Autodesk Consulting Specialization designation for value added resellers (VARs) from Autodesk, Inc. As an Autodesk Consulting Specialized Partner, initial.aec has shown that they have made significant investment in their people, have a solid consulting business plan, have reference able customers, and offer a high level of knowledge and support to customers in the building industry.

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

“Being a true, integrated solutions provider, we continue to offer higher level implementation services to our clients. This Autodesk specialization, along with our Microsoft and Dell partnerships, allows us to go to market with a more comprehensive services portfolio, offering both I.T. and design software solutions,” stated Jarod Schultz, Director of Autodesk Services at initial.aec.

About initial.aec

initial.aec serves as an Autodesk software reseller and Authorized Training Center (ATC). Since their inception in 2001, initial.aec has been a provider of outsourced information technology services for a variety of design firms in the state of Colorado. With a company background in architecture, engineering and I.T. along with partnerships with Autodesk, Dell and Microsoft, initial.aec continues to be Colorado’s integrated solutions provider for the design industry. Please visit initial.aec at <http://www.initialaec.com>

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KeyShot Gains Adoption Among Academia

20 September 2012

Luxion today announced that its academic program continues to find wide acceptance and rapid adoption amongst learning institutions and students around the world.

Design and engineering schools using Luxion's educational program are providing KeyShot 3D rendering and animation software for teachers to integrate into their curriculum and students to create project visuals and portfolios. The latest adopters of KeyShot's education program for their computer labs include Iowa State University, Rochester Institute of Technology, University of San Francisco, University of Houston, Auburn University, University of Washington School of Art, Konstfack - University College of Arts and Design and NABA - Nuova Accademia di Belle Arti Milano.

John McCabe is Professor of Industrial Design and Owen Foster is Department Chair, Industrial Design

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at Savannah College of Art and Design (SCAD) in Savannah, Georgia. SCAD uses KeyShot as the rendering software of choice, speeding the design development process and eliminating the struggle students have with traditional rendering software. "The students and faculty enjoy the quick response and extremely intuitive controls in KeyShot." John says. "This has allowed them to feel as if they can play with the program, as it helps them explore the perfect rendering."

Shawn Moghadam, Transportation Designer and Instructor at Art Center College of Design says, "I prefer KeyShot because it is the ONLY high-end rendering application I learned on my own, in one day! KeyShot is similar to Apple and Facebook when it comes to human factors and user friendliness and that is exactly why I use it and teach it."

Cam Frith, of the Industrial Design Division at University of Alberta gets straight to the point, "KeyShot is exactly what I was hoping for: Easy to use and lightning fast."

"We are excited to see that many of the leading design schools are deploying KeyShot," says Dr. Henrik Wann Jensen, Cofounder and Chief Scientist of Luxion. "This will allow instructors to focus on teaching design rather than rendering, thus developing better designers that are well prepared for the real world."

To learn more about Luxion's educational program please visit www.keyshot.com or contact our EDU team directly at education@luxion.com.

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LMS Partners with European Industry Leaders

17 September 2012

LMS International joins the three-year European ITEA2 Research Project 11004 "MODRIO" – Model Driven Physical Systems Operation.

With a budget of EUR 19.5 million, MODRIO seeks solutions to support adoption of model-based systems engineering in the design of mechatronic systems. The project covers all phases of the development cycle — from early concept design, over detailed system design, to verification and validation — and operational use including diagnostics during the entire system's life cycle.

The project is being implemented in cooperation with leading European companies in the energy and transport industries, including EDF (project coordinator), ABB, Siemens, EADS, Dassault Aviation and SCANIA.

"The MODRIO consortium will extend modeling and simulation tools based on open standards from system design to system operation. At EDF, we are convinced in the power of models, and we appreciate the opportunity to intensify their use for the design and operation of energy systems,"

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comments Daniel Bouskela, MODRIO project coordinator at EDF. “MODRIO will extend the state-of-the-art in modeling and simulation based on open standards, in order to increase the safety of energy and transportation systems, as well as their dependability and performance during the operational life.”

In cooperation with the project’s industrial partners, LMS will expand its simulation and test solutions for mechatronic system engineering. This targets enhancements in Model Embedded Control, Real-Time simulation based on high-fidelity multi-body dynamics modeling in LMS Virtual.Lab Motion and Hardware-in-the-Loop. LMS will also increase support of modeling standard Modelica and continue innovation in its core product suites: LMS Imagine.Lab, LMS Virtual.Lab and LMS Test.Lab.

“MODRIO will allow LMS to strengthen its two core knowledge pillars of modeling and operational testing,” adds Jan Leuridan, Executive Vice President and CTO at LMS International. “Together with the industrial end-users, LMS will develop and validate new model-based solutions to support the design process of mechatronic systems. The increased use of models from the concept phase to the operational life will be key for the industry to manage the increasingly complex design process and the operational use of controlled mechatronic systems.”

The LMS operations in Belgium are supported in the project by a grant from IWT Vlaanderen, the Flemish government Agency for Innovation by Science and Technology; cf. www.iwt.be/english/welcome.

In France, the participation of LMS Imagine is supported through a grant of DGCIS, the Directorate General for Competitiveness, Industry and Services (DGCIS); cf. www.industrie.gouv.fr/dgcis/dgcis-english.pdf.

For more information about MODRIO and ITEA2, visit www.itea2.org.

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MicroGenesis Receives Advanced Specialization from Autodesk Inc.

17 September 2012

MicroGenesis, an Autodesk Gold Partner based in Bangalore, is pleased to announce that it has received the Advanced Specialization in Simulation and Value Added Services Specialization in Consulting and Product Support from Autodesk Inc.

Advanced Specializations help customers identify a Partner with the skills and experience to best address their complex business needs while Value Added Services help customers identify a Partner with the skills and experience to best address their complex implementation, support, and training needs.

"We are delighted to receive these important Specializations from Autodesk and is a reflection of our

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commitment to deliver business value to customers from the investment they make with us." said Thomas Jacob, Director, MicroGenesis. "The Simulation, Consulting and Product Support Specializations along with our existing Manufacturing and AEC Product Focus will enable us to offer a solution that best fits our customer's business process requirements rather than just a combination of various products from the Autodesk portfolio."

To become Advanced Specialized, partners must meet Autodesk requirements of having the required number of Sales and Technical Specialists who have successfully completed the Specialist training and examination apart from submitting a Business Plan with qualifying customer references that are related to the Specialization.

About MicroGenesis

MicroGenesis CADSoft Pvt. Ltd. is an Information Technology Company set up in Bangalore in 1997 by CAD/CAM professionals with over a decade of industry experience. Since then MicroGenesis has grown to become a successful CAD/CAM solution provider.

For more information, please visit <http://www.mgenindia.com>

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Events News

Agilent Technologies to Launch Seminar Tour Focused on Principles of System Design for Automated Testing

14 September 2012

Agilent Technologies Inc. today announced it will launch a seminar tour on system design principles, including on-site demonstrations, case studies and expert insight into how to develop high-capacity and high-performance electronic test systems. At these [complimentary full-day technical seminars](#), Agilent experts and leading system integrators will cover the latest technologies for automated instrumentation in a broad set of industries.

Topics will include switching, power and load management, software architecture and hardware subsystems. System performance and economic factors such as TPS transportability, system repeatability, obsolescence and calibration will be discussed.

"Agilent is uniquely positioned to provide hybrid system solutions, bringing together best- in-class modular and rack-and-stack instrumentation," said Carla Feldman, Agilent's marketing manager for modular solutions. "We are pleased to be able to share our expertise and help customers architect their next-generation automated test equipment systems."

Attendees will learn how to enhance flexibility, measurement performance and system throughput while optimizing the cost of testing. Using a leading test platform as an example, experts at the seminar will

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walk attendees through the challenges of architecting next-generation automated test systems and provide guidance on how to overcome them.

This seminar is ideal for test engineers, system engineers and system architects designing, specifying or developing automated test systems in the wireless, automotive, aerospace and defense industries.

Dates and Locations

The [seminar tour](#) includes the following dates and locations:

- Sept. 26 in Los Angeles
- Oct. 2 and 3 in Santa Clara, Calif.
- Oct. 10 in Chelmsford, Mass.

Enrollment is limited. Click [here](#) to register. For additional information, visit www.agilent.com/find/teardown.

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Aras to Present at CMII 2012 International Conference

20 September 2012

Aras® has announced that the company will present at the Institute for Configuration Management's 2012 International CMII Symposium. Drawing attendees worldwide, CMII is a leading global event for configuration management and business process improvement professionals. Marc Lind, Aras SVP of Global Marketing, will Present "Integrated Requirements Management for Systems Engineering."

The 25th Annual CMII World Conference takes place October 8 and 9 at The Orleans Hotel and Conference Center in Las Vegas, Nevada, USA. Celebrating 25 years of excellence, the theme for the 2012 conference is "Proven Strategies and Practical Workshops."

Marc Lind from Aras will present on Tuesday, October 9th, at 10:15am. Mr. Lind's presentation will explore the challenges and risks of systems engineering where requirements span a cross discipline configuration including mechanical, electrical, wiring, software, firmware and other related items, and explain how to break down the barriers and manage complexity for 21st century product development.

Aras is CMII certified with a 4 star rating by the Institute for Configuration Management delivering industry best practices for corporate confidence and CMII success. CMII-embedded processes enable Aras users to manage information across the product lifecycle to reduce costs, drive quality and improve profitability. To learn more and register for the CMII Conference visit <http://www.icmhq.com/cmii-annualconference.html>

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AVEVA to Present its Software Solutions at KIOGE 2012

19 September 2012

AVEVA announced today that it is exhibiting at the Kazakhstan International Oil & Gas Exhibition and Conference (KIOGE) 2012, held between 2-5 October 2012 at the 'Atakent' Exhibition Hall, Almaty, Kazakhstan. Visitors to Hall 9B, booth B006 will discover AVEVA's innovative Integrated Engineering & Design software solutions for reducing time and cost on major capital oil & gas projects.

Evgeny Fedotov, Senior Vice President, Russia, India & Middle East comments, 'AVEVA is always ahead in terms of development, innovation and the needs of the market. For the Kazakhstan region we offer not only advanced solutions for major capital projects but comprehensive support to our clients in the region. We will demonstrate that the Integrated Engineering & Design approach offers the fastest, most productive and risk-free tool set to design, build and revamp plants of any size and complexity.

'AVEVA has contributed to many successful capital projects in Kazakhstan and the Caspian region, thanks to our international reputation and experience in Russia. This will be the third year that AVEVA has participated in and supported this strategically important event to the Kazakhstan region. KIOGE is not just a fantastic opportunity to present our solutions, but a meeting place for all of our customers.'

ABOUT KIOGE

The Kazakhstan International Oil & Gas Exhibition and Conference is Central Asia's largest trade event for the oil and gas industry. It is the focal point for the sector in Kazakhstan and a high profile event in the calendar for the region. The event comprises an exhibition and conference and has helped to introduce more than 5,000 companies into the market, a great many of which now have well-established businesses in Kazakhstan.

www.kioge.com

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Delcam to Show Integrated Electrode Solution at Euromold

20 September 2012

Delcam will demonstrate its integrated solution for the design, machining and inspection of electrodes on stand H57 in Hall 8 at the Euromold exhibition to be held in Frankfurt from 27th to 30th November. The close integration has been made possible through a combination of developments in Delcam's PowerSHAPE CAD software, PowerMILL CAM system and PowerINSPECT inspection software. The production of electrodes is a key stage in the manufacture of many types of tooling, including injection moulds, so the availability of a faster, more automated method for their development will increase efficiency and reduce lead times across a number of industries.

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At the heart of the novel Delcam solution is a new file format – the .Trode file. This contains all the information for each electrode project, including not only the electrode design but also the machining and inspection information, plus the set-up sheets for its manufacture and use. Having all the required information in a single file simplifies data management as well as increasing overall efficiency.

The initial design stage of the process has been made both easier and faster thanks to the increased range of direct modelling tools available within PowerSHAPE. Users can now quickly and easily define the region where the electrode will be used, extract the shape needed to produce the required feature in the part, and then edit the design to provide clearance from the main surface of the tool and to blend it into the blank size needed to fix the electrode into its holder.

Analysis tools are available to check that the draft angles and minimum radii used in the design will not cause downstream problems, while the ability to simulate the action of the electrode ensures that it will operate as expected. To speed the design process further, catalogues of blanks and holders are included from Erowa, Hirschman and System 3R. Users can add their own standard sizes to these databases.

Once the design has been finalised, the necessary spark gaps can be specified to provide the machining offsets required in PowerMILL to cut the roughing and finishing electrodes. Inspection points can also be added so that the measurement of the electrode in PowerINSPECT can be automated to a large extent. Then, set-up sheets for the electrode's manufacture and use can be produced automatically, either to a standard format or to a user-defined template.

Companies that produce multiple electrodes of similar sizes from the same material can develop templates within PowerMILL to machine them in a standardised way. Burn, clearance and blank faces of the electrode are automatically colour-coded within PowerSHAPE so that they can be recognised within PowerMILL. The size of the material block and the spark gaps for the electrode family are also read from the .Trode file and applied to the toolpaths automatically. Once the templates have been created, generating the machining toolpaths becomes a fully-automated process.

Specifying the inspection points within PowerSHAPE means that the probe path in PowerINSPECT and the production of the inspection report can also be automated, including undertaking a best-fit analysis of the machined electrode. However, all of PowerINSPECT's flexibility is available if extra measurements are needed from any areas of the part that are causing concern. The results of the inspection are added to the .Trode file for quality control records.

The automated generation of set-up sheets for both the machining and application of the electrodes ensures that all the data needed at each stage is readily available. A documentation pack, including the GA and detail sheets, can be issued as drawings, HTML files or Microsoft Excel spread sheets. All these options make communication easy between the various people involved in the design, manufacture and use of the electrodes.

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ESI China User Forum will take place on September 17-19 in Chengdu, Sichuan

15 September 2012

ESI Group announces the upcoming ESI China User Forum. The event will take place on September 17-19, 2012 in the province of Sichuan, at the Howard Johnson Conference Resort, Chengdu.

The conference program will feature two days of case study presentations, delivered by ESI's Chinese clients and partners and also ESI own experts from all around the world.

In the plenary session on the first day speakers from [AVIC-IT](#), [Tongji University](#) and the [Inner Mongolia First Machinery Group](#) will present deployments of Simulation Technology in the Aerospace and Automotive sectors respectively. Thereafter there will be parallel sessions presenting applications in these two industry sectors and sessions on Virtual Manufacturing as used in diverse industries addressed by ESI in China. In total, among the 130 customer technical papers accepted by [ESI China](#) for this conference, 40 papers will be presented live by industry experts and ESI technical specialists during the event.

At the ESI China User Forum in 2011, [ESI](#) launched Virtual Reality Solutions, added to their portfolio of products with the acquisition of IC.IDO GmbH. One year later ESI has teamed with Tongji University to create a Virtual Design Institute, having the aim to build a center of excellence in the field of Virtual Reality applications. Bringing Virtual Engineering to a new level, fast evolving immersive 3D solutions are used by engineers in the design and development phases of new products in order to take collective decisions, work with remote teams and non-engineers. These solutions will be on display throughout the User Forum, providing opportunities to experience this revolutionary technology first hand and to share ideas on the convergence of Virtual Reality and Virtual Prototyping in the broader context of Virtual Engineering.

A gala dinner will be held on September 17, bringing together all attendees in an informal setting for private discussion and networking. A ceremony will be held to reward the best papers of the conference.

On September 19, to close the conference on a technical note, ESI China will propose a training day for software solutions [PAM-STAMP 2G](#), [ProCAST](#), [SYSWELD](#), [VA One](#) and [IC.IDO](#). Attendees are welcome to register as they arrive at the conference.

Who should attend? ESI China Forum 2012 will cater to all willing to discover and share ideas and experiences related to Virtual Product Engineering. Participants include designers, engineers, analysts and decision-makers from customer and partner companies.

Registrations for the event are now open. To register, please email marketing.esichina@esi-group.com or call 10-65544907/8/9-0.

For more ESI news, visit: www.esi-group.com/newsroom

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Faster VERICUT at EuroMold 2012 Frankfurt Germany

19 September 2012

CGTech will exhibit Version 7.2 of VERICUT CNC machine simulation and Verification software at EuroMold, in Frankfurt, Germany, November 27th - 30th, 2012

VERICUT 7.2 features many enhancements to improve speed, thereby reducing the time required for manufacturing engineers to develop, analyze, inspect and document the CNC programming and machining process. Along with proactively adding new features, CGTech developers and engineers are focusing on implementing hundreds of customer-driven enhancements.

VERICUT Version 7.2 runs significantly faster than previous versions as a result of code optimisation and increased use of multi-threading and multiple 64 bit processors. Customers are reporting at least a 20% overall performance boost with some processor intensive operations benefiting even more.

“For VERICUT 7.2 we continue to focus on the customer’s use of VERICUT and how we can improve the simulation process effectiveness,” said Bill Hasenjaeger, Product Marketing Manager. “We added features to the user interface to simplify the most common user actions and invested significant developer hours to increase speed by more thoroughly taking advantage of multiple processors and background processing.” Another new feature is the ability to optimize an NC program from a saved simulation. Users can adjust and re-optimize without rerunning the simulation. A new interactive panel displays cutting conditions immediately anywhere in the machining process. The user can navigate the NC program to evaluate cutting conditions and quickly see the results of adjustments to optimization settings.

VERICUT Product/Function Overview:

VERICUT is CNC machine simulation, verification and optimization software that enables users to eliminate the process of manually proving-out NC programs. It reduces scrap loss and rework. The program also optimizes NC programs in order to both save time and produce higher quality surface finish. VERICUT simulates all types of CNC machine tools, including those from leading manufacturers such as Mori Seiki, Mazak, Makino, Matsuura, Hermle, DMG and Chiron. VERICUT runs standalone, but can also be integrated with leading CAM systems such as Dassault Systemes CATIA, Siemens NX, Delcam PowerMill, MasterCAM, Vero EdgeCAM, Open Mind hyperMILL, DP Technology Esprit and Cimatron GibbsCAM.

For more information, visit the CGTech website at www.cgtech.com, call +44 1273 773538 or email info.uk@cgtech.com

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Omnify Software to Present at MedTech Cardio Conference 2012

17 September 2012

WHAT:

Attracting engineering and quality professionals from around the world, the [MedTech Cardio 2012 Conference](#) provides a unique opportunity to explore the latest trends in Cardiovascular innovations.

MedTech Cardio takes place October 30-31, 2012 alongside [MD&M Minneapolis](#). This conference will address the key issues that cardiovascular device manufacturers face on a daily basis. "We are pleased to host a presentation from Omnify Software which will explore the use of Product Lifecycle Management (PLM) technology as a best practice for efficient collaboration among teams representing different functions and product lines," said Vu Nguyen, Conference Director of MedTech Cardio. The lecture will highlight how to avoid "reinventing the wheel" by adopting proven technology and processes to promote the sharing of ideas, minimize inefficiency, and drive innovation. This session will also include a cardiovascular customer case study to demonstrate a real world application. As a conference sponsor, attendees will be able to speak directly with Omnify Software representatives at the Omnify Software Meeting Kiosk before and after the presentation.

WHEN:

October 31, 2012 at 2:00 p.m.

WHERE:

Minneapolis Convention Center in Minneapolis, MN.

WHO:

Chuck McGinley, Director of WorldWide Applications for Omnify Software, <http://www.omnifysoft.com/>.

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Real-time Synchronization of Work

20 September 2012

Product developers work together around the world. Product Lifecycle Management (PLM) enables real-time synchronization. T-Systems will demonstrate this at Siemens PLM Connection 2012.

Working together on development projects "in real time"? The user conference „PLM Europe – Siemens PLM Connection 2012“ in Linz, Austria on October 17-19 will demonstrate which new solutions for the Siemens High Definition PLM offer simplify company-wide integration of developments. Congress attendees can visit the T-Systems booth (no. 37) to find out how international development teams can synchronize their work in real time.

Transparency for scattered teams

The PLM Europe user group (www.plm-europe.org) invited T-Systems to participate in the event. It offers decision-makers, users and service providers a forum for discussing current developments in Product Lifecycle Management.

The manufacturing industry, especially the vehicle manufacturing sector, is continually broadening the basis of product development. Even large corporations are barely able to fulfill the growing market and political requirements all by themselves. In order to make their products flexible and help new developments reach market maturity in a timely manner, many companies have entered into development partnerships and in doing so have established entirely new cooperation models.

Clever decisions

In practice this means the following: Those responsible for PLM are facing a wealth of heterogeneous applications that they must integrate. Those who want to undertake this integration across the entire company within the scope of development projects need standardized software tools with open interfaces. Only then can all relevant product data be analyzed in real time. And developers can quickly make decisions when time is critical. Such far-reaching integration can be achieved with the Siemens High Definition PLM tool.

At the user conference, T-Systems experts will present solutions for successfully implementing High Definition PLM. Implementation, migration and consolidation projects will be used to demonstrate how product developers are networked with exactly the colleagues and information needed for optimal decision-making.

For more information, visit: <http://www.t-systems.com/tsip/en/759816/homepage/news-media/news/latest-news>

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Season IV of DesignACE 2012 Announced

17 September 2012

Barry-Wehmiller International Resources (BWIR), in partnership with Dassault Systèmes SolidWorks Corporation, is now gearing up for the 2012 BWIR DesignACE contest. The contest, targeting students from the engineering and manufacturing domain, will cover more than 500 colleges across Southern India spanning the states of Tamil Nadu, Karnataka, Andhra Pradesh and Kerala.

DesignACE is an annual engineering design competition initiated and conducted by BWIR for the engineering student community. Engineering students across the streams of mechanical, production, automobile and aerospace will present their design concepts using a SolidWorks CAD tool.

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With the DesignACE competition in its 4th year it has proven to be a unique opportunity for South Indian engineering students to gain valuable experience. Dassault Systèmes SolidWorks Corporation will serve as technical partner for the event, providing the students with software kits for modeling their designs. This year's contest is themed "Go Green!" In addition to "green thinking", designs will be judged on innovation, design capability and depth and clarity of thinking. The pre-finals session will be judged Sept. 21 and the Grand Finale will be Sept. 22 at T.N. Rajarathinam Kalai Arangam, R.A. Puram, Chennai.

Students participate in teams of two. After the first round of submissions, those with qualifying designs are invited to the pre-finals session where they must solve an on-the-spot design problem. Finalists are chosen based on design output, and then present their concepts to a panel of judges consisting of prominent industrialists, technologists and academic heads. The best three designs are awarded cash prizes and potential employment opportunities upon graduation.

Mr. Senthilkumar D., vice president and senior partner of BWIR, commented on this academic initiative, saying, "We are delighted to announce the fourth season of BWIR DesignACE; an event we take considerable pride in organizing. Over the years, DesignACE is steadily proving the benefits to the community which is evidenced by the fact that five of the participants from last year are now BWIR employees. This in turn benefits our customers because we are able to attract the best and brightest students from the Southern states of India."

Cash prizes and top honors include:

- First Prize - Rs. 30000/- or \$600
- Second Prize - Rs. 25000/- or \$500
- Third Prize - Rs. 20000/- or \$400
- Stipend-paid internships with BWIR

Like last year, Dassault Systèmes SolidWorks Corporation has joined BWIR as the Technical Partner. SIM Technologies Pvt Ltd (SIMTEK) a Chennai-based SolidWorks value added reseller, will hold a workshop and challenging design contest on the day of the finals, following the presentations, details as follows:

"Transform your imagination to reality with SolidWorks" workshop:

In this workshop SIMTEK will show application of SolidWorks live specific to machine building vertical. SIMTEK application experts will brief students on design concept, design for manufacturing, 2D to 3D conversion techniques and drafting methodology that is practiced in today's Industries. This workshop will give students a broad view on design and help them further improve their standards in-line with industry standards.

"Model Mania" contest:

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Model Mania is a SolidWorks modelling contest for the CAD designers' community. This is a timed event that tests the ability to model a part and then make some engineering changes to the model. Each contestant has 20 minutes to model the part and make the changes. Prizes are awarded for the top 3 contestants in each category.

For more information on the contest and guidelines visit www.bwir-designace.com.

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SoftInWay to Participate in the 41st Turbomachinery Symposium at Houston, Texas, USA

20 September 2012

SoftInWay Inc, announces its participation in the 41st Turbomachinery Symposium that will take place at the George R. Brown Convention Center, Houston, Texas, USA, on September 24-27. The company invites engineers to visit Booth #947, where their team will gladly introduce visitors to their latest developments in the field of turbomachinery design and retrofitting, including:

- New retrofitting features in AxSTREAM 3.2.
[Read more >>](#)
- New software for Pump design, analysis and optimization AxSTREAM Hydro™
[Read more >>](#)
- New free tool (AxSTREAM Lite), which will enable turbomachinery engineering students, to deepen the depth of their study and become professional, knowledgeable and hireable engineers.
[Read more >>](#)

“The latest updates in AxSTREAM 3.2 were inspired by real engineering experience, challenges and numerous case studies, – stated Leonid Moroz, SoftInWay President and CEO. – They were developed to really help our engineering clients with solving advanced turbomachinery design challenges. As the world becomes increasingly more complex, we must work together to create newer and smarter technology to ensure a greener and cleaner future. Ranging from ORC Turbines to Turbomachinery which can use advanced materials and gas properties, we push ourselves every day to develop and create a better product for the community.”

SoftInWay's presentation will be especially interesting to engineers involved in maintenance, repair and overhauls of centrifugal compressors, as well as to mechanical and aerospace academics or anyone in need of a broad-based introduction to the latest turbomachinery design trends.

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Financial News

Rand Worldwide to Report Fiscal 2012 Year End Results on Friday, September 28, 2012

21 September 2012

Rand Worldwide, Inc. announced it will release its financial results for its fiscal year ended June 30, 2012, before the market opens on Friday, September 28, 2012. The Company has scheduled a conference call for 11:00 a.m. Eastern Time on the same day to review these results.

A live webcast of the conference call will be available to all investors in the Investor Relations section of the Company's [website](#). The dial-in numbers for the conference call are 1-800-291-5365 (domestic) or 1-617-614-3922 (International), and enter the passcode (47118186).

For those who are not available during the live broadcast, an archived replay of the call will be available on the Company's site through October 5, 2012, and can be accessed by dialing 1-888-286-8010 (domestic) or 1-617-801-6888 (international), using the passcode (48070600).

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Implementation Investments

AVEVA Software Implemented in Major Petrobras Refinery Projects

18 September 2012

AVEVA today announced that its software has been implemented on four major Petrobras Oil & Gas projects in Brazil. Engineering firm Chemtech has adopted [AVEVA PDMS](#) and [AVEVA Global](#) for the development of refineries Complexo Petroquímico do Estado do Rio de Janeiro (Comperj) in Rio de Janeiro; Abreu and Lima (Rnest) in Pernambuco state, and the Premium I and II in the Maranhão and Ceará states.

On the Rnest project, AVEVA PDMS was applied during the front-end engineering and design (FEED) and detailing stages of the refinery. According to Érica Conceição, Projects Manager, Chemtech, 'The AVEVA applications increased the efficiency of producing documents from the piping, mechanical, structural, electrical and instrumentation design. The products were easy to customise and we could, for instance, generate electrical layout drawings with the required 2D symbology direct from the 3D model.'

AVEVA Global was a key application for this project. Added to PDMS it allowed the visualisation and sharing of 3D model designs in real time with other members of the project consortium, regardless of their physical location. AVEVA Global will help partners and clients work simultaneously on design models from sites located in São Paulo and Recife.

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On the Comperj project, AVEVA PDMS was also applied at the FEED stage and became fundamental to validating the viability of the investment. According to Ms Conceição, 'AVEVA PDMS has been highly praised by our users. The interface is intuitive and easy to use, so we can train our teams more quickly for every project.'

Santiago Pena, Senior Vice President, Latin America, AVEVA added, 'Chemtech's implementation of AVEVA software for Petrobras' major capital projects is an impressive reference for AVEVA not only in Brazil, but Latin America and globally. AVEVA's products, such as AVEVA PDMS and AVEVA Global, enable an Integrated Engineering & Design approach, allowing flexible and effective 3D design and collaborative working across major projects.'

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CDS Catalog and CAD Download Solution Selected by UC Components

18 September 2012

[CDS \(Catalog Data Solutions\)](#) today announced that [UC Components](#), Inc. has selected its SaaS Catalog and CAD download solution.

UC Components, Inc. is a manufacturer of vented and non-vented fasteners and baked o-rings for ultra-high vacuum applications (UHV). "The internet has changed industrial product sourcing – designers usually research products online before they even call potential suppliers. Our website needs to provide visitors with a simple to use online product catalog to easily find the right product and downloadable CAD models to quickly specify it into their designs", said Rick Anderson, General Manager, UC Components, Inc. "We evaluated several vendors and chose the [CDS Catalog and CDS ModelServer](#) SaaS solution because it is well proven in the market, specifically designed for industrial suppliers, extremely user friendly for our customers and right up-to-date technically so very easy to integrate into our website. CDS really took the time to understand our business and they were also considerably less expensive than the competitors - the new solution is currently being configured for our products and will then be integrated into our website."

"We're delighted to have been selected by UC Components," said John Major, CEO CDS. "As product selection and buying continues to change and evolve, sales and marketing organizations need to continually come up with ways to get in front of the selection and buying cycle. UC Components is now doing just that, via an online product catalog and CAD downloads that ensure their products both remain in contention and exploit advantages made possible by the new process. The downloadable CAD models of the products save designers and buyers time and enable the products to be designed-in easily and quickly. Of the many types of online marketing content (e.g. white papers, case studies, brochures, videos, demos, recorded webinars, reviews, CAD model downloads, etc.) only one is known to lead to a sale nearly 50% of the time! CAD downloads may be the most efficient online marketing tool available."

CDS helps grow sales and strengthen customer loyalty for its clients through interactive online product catalogs, ecommerce, 3D CAD & BIM model delivery and product configurator solutions.

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Hydrocontrol SpA of Italy Implements Aras PLM Solution Suite

18 September 2012

Aras® has announced that Hydrocontrol SpA, a global manufacturer of hydraulic components for mobile machinery, headquartered in Bologna, Italy, has implemented the Aras PLM solution suite to manage its highly configurable and customizable products from product design through maintenance.

Hydrocontrol's implementation of Aras, managed by Gold Certified Partner FocusPLM, enables worldwide concurrent engineering activities integrated with the company's ERP and CAD applications. Aras's true web-based, distributed architecture and open framework were key factors in Hydrocontrol's selection process.

Founded in 1969 and driven by a passion for engineering, Hydrocontrol develops complex valve systems and other hydraulic components customized to the specific needs of companies in a range of industries, including forestry, waste, construction and agriculture. To support its diverse customer base, the company has locations in Europe, USA, China and India. To learn more, please visit <http://www.hydrocontrol-inc.com>

“Hydrocontrol develops complex products for highly competitive, global markets. Aras provides the strategic advantage Hydrocontrol needs to maintain its leadership position, enabling the company to respond to rapidly changing customer requests, quickly and cost-effectively,” said Peter Schroer, President of Aras.

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RuleDesigner and Cefla: a Successful Partnership for Continuous Innovation

21 September 2012

Cefla sc, the Italian business operating worldwide for 80 years in the furniture, dental, finishing and civil and industrial system industry, is an established partner that reconfirms its confidence by choosing RuleDesigner as an extended enterprise solution.

RuleDesigner is already operating as a PDM management system, with independent implementations in Cefla Finishing Group, Cefla Arredamenti Group (furniture) and Cefla Dental Group. Each division benefits from the multi-site management of technical data which supports co-design and collaborative processes among the various partner companies pertaining to the group.

RuleDesigner is even used, with great satisfaction, as a relationship channel to interact with providers. Thanks to a dedicated web portal, RuleDesigner allows to share data in real time giving users the possibility to consult purchasing orders, published technical information, latest reviews and the history of the PDM part numbers with data, drawings, BOMs and PDM-related documentation.

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Cefla Finishing Group, international leader in the wood and coating industry, has expanded the use of RuleDesigner to the sales department introducing integrated tools for managing relationships with customers (CRM) and sales-force automation, including sales offers configuration. The sales team can already make use of the offer configuration processes, available both via web and off-line. Through configuration they can define easily the correct configuration of the product-line and automatically obtain the bid documents, storing them in the correct corporate repository. Furthermore, the marketing department can draw up statistics on special offers starting from structural data coming from configuration processes.

Cefla Dental Group has an ongoing project for which they chose RuleDesigner as a relationship management system, aimed at tracking and organizing in a cross-linked way information for customers, partners, and suppliers and provide after-sales services through the web portal. Among the services offered: automatic storage of exchanged communications, including sent/received emails, activity-planning and history of the tasks carried out, business data, possibility of storing documents sent/received or linked to the customer, management and consultation of tickets opened and closed. These are just some examples of the added value that only an integrated system can provide.

Finally, **Cefla** uses RuleDesigner as a Group solution for managing request to accede several informative services and incident tickets (Employee Portal). In addition, the RuleDesigner platform is mapped by both the organization and network of relationships between the group companies, employees, and cost centres. Each entity able to store activities and documents related to the services enabled and/or linked to tickets, in an organized way. Thanks to the help-desk service users can handle approval workflows related to service or incident tickets. Users make use of a configuration process that drives them through the correct formalization of the request and is able to automatically generating tickets by entering them in the correct corporate flows.

About RuleDesigner

RuleDesigner is a wide, innovative web platform thought to deal with the management, automation and integration of PLM extended processes as well as document and relationship management at an enterprise level. By mapping multiple corporate processes in an extended and cross-linked way, RuleDesigner allows to maximize the development of daily activities and cope with the informative needs of the company's department and stakeholders, supporting the corporate collaboration and relationship network. Moreover, RuleDesigner offers tools both for the automation all along the corporate processes and for the automatic generation of data and documents. It is an extensible and modular solution able to achieve an integrated, homogeneous and structured management of documents, CRM processes, sales-force automation, service, Project management and PDM/PLM systems. Anything, with a wide range of managing and generative functionalities.

For more information www.ruledesigner.com

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Product News

Accelrys Transforms Lab-to-Commercialization Process with New Integrated Accelrys Process Management and Compliance Suite

18 September 2012

Accelrys, Inc. today announced the new integrated [Accelrys Process Management and Compliance Suite](#) of software products designed specifically to enhance product and process insight, facilitate collaboration and streamline product development from research through late-stage quality control and manufacturing. By improving the way businesses manage the [scientific innovation lifecycle](#), the suite helps bring products to market faster and at a lower cost, while meeting critical quality and regulatory compliance objectives.

"Companies that rely on science to innovate continue to struggle with quickly and cost-effectively transforming good ideas into successful products," said Accelrys president and chief executive officer Max Carnecchia. "The unified approach to product development and process execution offered by the Accelrys Process Management and Compliance Suite provides a transformative path forward for organizations demanding new ways to accelerate innovation and retain competitive advantages."

The Accelrys Process Management and Compliance Suite directly integrates with systems critical to development and manufacturing processes such as laboratory information management systems (LIMS), enterprise resource planning (ERP), product lifecycle management (PLM) and manufacturing execution systems (MES). The ability to leverage existing applications and infrastructure, combined with the features of the Accelrys Process Management and Compliance Suite, offers organizations for the first time a single, unified source for harmonizing critical-path data and meeting the "right-first-time" needs of downstream manufacturing. The insights gained from the suite enhance reporting, decision making, knowledge management and operational excellence from lab to commercialization.

The Accelrys Process Management and Compliance Suite is the result of Accelrys' 2012 acquisition of VelQuest Corporation with its industry-leading paperless lab execution and data capture technology. The integrated suite comprises:

- [Accelrys Enterprise Platform](#)
- [Accelrys Lab Execution System](#)
- [Accelrys Electronic Lab Notebook](#) (formerly Symyx Notebook by Accelrys)
- [Accelrys Electronic Batch Records](#)

"For too long lab-to-market value chain processes have been managed by an outmoded combination of disconnected point solutions, paper notebooks and home-grown tools, creating a productivity gap that has slowed innovation," said Ken Rapp, managing director of Accelrys' analytical, development, quality and manufacturing solutions. "The Accelrys Process Management and Compliance Suite changes that paradigm. By combining the capabilities of an electronic lab notebook, lab execution system and an

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enterprise scientific informatics platform, Accelrys brings a holistic approach to solving common and costly operational challenges ranging from production quality issues and regulatory violations to shrinking margins."

Integration of the Accelrys Process Management and Compliance Suite with the Accelrys Enterprise Platform enables lifecycle aggregation, analytics and comprehensive reporting across the continuum from discovery to manufacturing, supporting Six Sigma and Quality by Design (QbD) programs and International Conference on Harmonization (ICH) initiatives in pharmacovigilance and risk management.

The Accelrys Process Management and Compliance Suite supports scientists working in early and mid-stage analytical, formulation and process/bioprocess development all the way through to stability, material and release testing during late-stage quality control and commercial production. By ensuring seamless technology transfer at the crucial research, development, pilot and manufacturing handoffs, the suite enables the rapid and accurate transfer of methods, recipes and procedures captured during early development into automated execution. As a result, customers have reported that they are experiencing up to 25 percent productivity improvement while cutting cycle times in half and reducing compliance risks.

To learn more about the Accelrys Process Management and Compliance Suite, visit the [overview page](#), download the [solution brief](#) and register for future [webinars](#) coming soon on this innovative solution for accelerating science to compliance.

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ADT Pump Efficiency Initiative Can Facilitate Ecodesign Directive Compliance

18 September 2012

[Advanced Design Technology](#) (ADT), a global developer of advanced turbomachinery design methods and the TURBOdesign Suite, has announced that pump designers taking advantage of the company's recently launched [ADT Pump Efficiency Initiative](#) can apply its free evaluation design services to learn how to achieve greater efficiencies required by new [European Union \(EU\) Ecodesign Directive](#) standards.

ADT estimates that every participant in its ADT Pump Efficiency Initiative will receive approximately \$20,000 USD in free evaluation software access and pump design services using TURBOdesign1 software.

"With TURBOdesign Suite, there are some exciting pump efficiency capabilities designers can leverage to meet Ecodesign Directive standards," said Mehrdad Zangeneh, professor of thermofluids at University College London and founding director of ADT. "Through the ADT Pump Efficiency Initiative we are offering our design services for free to enable companies to evaluate the software and

CIMdata PLM Industry Summary

see first-hand how to make their pumps more efficient, provided the companies do not use the resulting designs for commercial use.”

The European Commission's Ecodesign Directives (2005/32/EC) and (2009/125/EC) are aimed at reducing the environmental impact of energy-related products. These directives include various pump applications and will begin being enforced January 1, 2013. Inclusion of energy consumption ratings throughout the entire product life cycle means that all pump original equipment manufacturers (OEMs) are facing design challenges that require evaluation of the pump efficiency at various operating points, often as low as 25 percent flow of the best efficiency point.

“In most cases of high specific speed mixed-flow pump applications, it is necessary to satisfy more than one performance characteristic such as design point efficiency, shutoff power/head and non-stall characteristic (no positive slope in flow-head curve). However, it is known that these performance characteristics are in relation of trade-offs. As a result, it is difficult to optimize these performance characteristics by conventional way such as trial and error approach modifying geometrical parameters,” said Yumiko Takayama and Hiroyoshi Watanabe, Fluid Machinery & Systems Company, Ebara Corporation, who coupled 3D inverse pump design TURBOdesign1 with automatic optimization. They conclude, “Once the response surfaces of the parameters are created, it is possible to design an optimum pump to meet the pump users’ requirements within a reasonable time in the actual design process.”

About the ADT Pump Efficiency Initiative

ADT’s 3D inverse design software, TURBOdesign Suite, has resulted in significant improvement in the efficiency of pump impellers. Many ADT customers—representing some of the largest pump manufacturers in the world—have achieved considerable improvements in pump performance, gaining significant competitive edge as a result.

ADT is offering its ADT Pump Efficiency Initiative until October 31, 2012, to make the TURBOdesign Suite more widely available to a larger group of companies, including pump manufacturers. The initiative, which includes a full design study provided in conjunction with software licensing and transfer of design know-how, allows for systematic improvement of pump performances across a wide range of industries.

Detailed information on the ADT Pump Efficiency Initiative is available on ADT’s [website](#).

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Altair Expands Composite Offering by Including MultiMech Suite in the HyperWorks Partner Alliance

18 September 2012

Altair announced today the addition of [MultiMech](#)'s software suite of composite tools to the growing array of applications available through the [HyperWorks Partner Alliance](#) (HWPAA). The MultiMech

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Suite allows users from many industries to analyze and optimize materials using its unique two-way coupled multiscale approach developed in response to the ever increasing use of advanced materials. This suite provides solutions to accurately and cost-efficiently relate materials' microstructural design variables to overall structural performance which helps solve problems related to mechanical failure and inefficient trial and error product development.

"The addition of MultiMech into the HyperWorks Partner Alliance adds important new capabilities for our customers", said Dr. Robert Yancey, Altair's Senior Director for Global Aerospace. "MultiMech will continue to broaden our offering for composite material analysis which is an important area for our aerospace business and an emerging area for other industry verticals such as automotive and consumer products."

Composite materials have become a very important structural material in many industries including aerospace, wind energy, sporting goods, and marine with growing interest in the automotive industry. Accurate and comprehensive composite analysis capabilities are important to best utilize the unique advantages of composites which include low weight, high stiffness, and good fatigue performance. Altair continues to add composite analysis capabilities to its suite of analysis and optimization products and the MultiMech products will enhance the capabilities they provide their customers.

"MultiMech R&D could not be more pleased about the new partnership with the HyperWorks Partner Alliance," said Leandro Castro, co-founder of MultiMech Research & Development. "We saw this as a mutually beneficial opportunity to spread knowledge of our company, as well as the partner program within current and new markets. Our software performs multiscale and failure/fatigue analysis, as well as composites modeling. This creates a great amount of opportunity for integration and growth within the program. With a two-way coupled multiscale FE solver and a sophisticated generator of complex microstructures, we also contribute unique features that, before now, were not available within the partner program."

MultiMech Suite is a unique set of software tools, MultiMech Core, MultiMech GUI and MicroMech. MultiMech Core is a two-way coupled multiscale FE solver, MultiMech GUI is an intuitive graphical user interface that guides users through the process of creating multiscale models, and MicroMech is the industry's highly-developed generator of intricate microstructures. MultiMech Suite enables users to perform failure analyses and design of complex materials, such as fiber reinforced composites and composites formed of tiny particles of one material embedded in another. Global and local scales of Representative Volume Elements (RVEs) are solved simultaneously and both are able to communicate with each other. This provides supreme accuracy and understanding of the material behavior, and in turn creates stronger designs. The MultiMech Suite also provides standard homogenization for faster analyses and is fully parallelized and optimized to provide maximum performance and to speed up the product development cycle.

HyperWorks customers benefit from being able to access Altair's licensing system. This structure maximizes the customers' investment in the HyperWorks license by increasing its overall versatility.

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Each license comprises HyperWorks units which allow users to have access to over 28 applications developed by Altair. To further the customers' investment, Altair has opened this model up to third-party companies to include their applications. This collaboration is known as the HyperWorks Partner Alliance. The overall flexibility of these HyperWorks Units empowers users and allows them access to the largest and most complete suite of CAE applications available. Altair HyperWorks customers can access the MultiMech Suite through the HWP. It comes at no incremental cost and with no long-term commitment.

The HWP strives to provide the most comprehensive offering of software applications across multiple relevant domains related to CAE. For composites analysis and optimization, the HyperWorks suite combined with the HWP partner applications, offers the most comprehensive suite of software in the industry. By increasing this offering, CAE as a whole can be dramatically improved to optimize designs and products in the easiest way possible.

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Autodesk and Jitterbit Partner to Increase Access to Vital Product Lifecycle Management Data

18 September 2012

[Autodesk, Inc.](#) and Jitterbit, a provider of powerful, flexible and easy-to-use application and data integration software, have forged an alliance to provide [Autodesk PLM 360](#) the ability to integrate with on premise and cloud business applications. The relationship further strengthens Autodesk PLM 360's position as the next generation cloud-based alternative for product lifecycle management.

Jitterbit's award-winning cloud integration platform is a key component of a new suite of integration tools called Autodesk PLM 360 Connect, which helps customers to integrate their PLM and other cloud and enterprise business applications into one, seamless environment. The ability to easily move data across multiple systems further strengthens the value of Autodesk PLM 360, making the benefits of PLM available to anyone, anytime, anywhere.

"The combination of Autodesk PLM 360 and Jitterbit's next generation cloud integration solutions allows companies of all sizes to realize a greater return on their technology investments in ERP, CRM or other proprietary business applications," said George Gallegos, CEO at Jitterbit. "Companies will now have the ability to gather, analyze and utilize product or project data in a far more efficient manner than previously possible."

"Autodesk PLM 360 Connect is a straightforward and cost-effective way to keep Autodesk PLM 360 tightly connected with data from other critical business systems," said Buzz Kross, senior vice president, Design, Lifecycle and Simulation at Autodesk. "Jitterbit is a natural partner to match our nimble cloud-based approach. Our customers require integration that is powerful, quick, easy-to-use, and affordable."

Application Integration Simplified

The combination of cloud-based PLM with a cloud-based enterprise application interface platform makes it easy for customers to map, build and manage an elegant integration solution in any application environment. Jitterbit's intuitive graphical user interface means no software coding is required for

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integration. This “no coding” approach makes connections simple and easy to build and maintain for business analysts and administrators alike.

For additional information about the new suite of integration tools, Autodesk PLM 360 Connect, visit www.autodeskplm360.com.

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Cooperation between ASCON, Bricsys and LEDAS Brings Variational Direct Modeling to KOMPAS-3D

20 September 2012

ASCON and LEDAS along with Bricsys, jointly announced today that they successfully implemented variational direct modeling technology in the upcoming KOMPAS-3D V13. The importance of this significant milestone is that any history-free 3D model, including ones imported from other computer-aided design systems, can be now modified using KOMPAS-3D. Users will have the ability specify the size and position of 3D model features by applying geometric and dimensional constraints, such as distance, angle, parallelism, and tangency.

The research and development team at LEDAS worked for the last year integrating the VDM (variational direct modeling) technology from Bricsys into C3D (the name for ASCON’s geometric kernel). VDM is based on the LGS 3D solver and was successfully integrated by LEDAS into other popular 3D CAD systems, such as SketchUp, Rhinoceros, and Bricscad V12.

The primary advantage of the new KOMPAS-VDM application is its ability to combine traditional history tree modeling from KOMPAS-3D with new variational direct modeling.

“We are excited to provide KOMPAS-3D users with brand new modeling features,” said Maxim Bogdanov, CEO of ASCON. “Using computational components from Bricsys and the unique technical competence of LEDAS, it became possible for us to implement variational direct modeling in a short time and at a high level. Now every user of KOMPAS-3D V13 will be able to benefit from the high-tech applications we offer.”

“This project was an important step of our developing cooperation with ASCON,” explained Alexey Ershov, CEO of LEDAS. “In this collaboration, LEDAS acted not only as the provider of development services using Bricsys technology, but also as a worldwide reseller of Bricsys software products.”

“Licensing of our variational direct modeling technology by the largest Russian CAD vendor validated our decision to acquire the corresponding IP rights from LEDAS last year,” said Erik De Keyser, CEO of Bricsys NV. “Successful implementation of the project was able thanks to close cooperation of ASCON, Bricsys and LEDAS engineers. We are ready to apply the same implementation scheme with other companies who are interested in our state-of-the-art technologies for parametric design in 2D and

3D."

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Delcam Adds More Milling Options for FeatureCAM

19 September 2012

Delcam has added a new series of options for three-axis milling and enhancements in five-axis machining to its FeatureCAM feature-based CAM software. The 2013 release also includes improvements in the turning and mill-turn modules. Full details are available on the FeatureCAM 2013 learning zone at <http://lz.featurecam.com>.

FeatureCAM was the world's first feature-based programming software when it was launched in 1995. Constant development since then has ensured that the system has retained its leadership in programming speed and ease of use, while an increased range of strategies has been added to provide more efficient toolpaths giving greater productivity on a wider range of machines.

The main change to the 2013 FeatureCAM product family has been the introduction of three levels of 3D machining functionality. FeatureMILL 3D Lite offers single-surface machining with a basic range of strategies and so provides an introductory product for companies moving into 3D machining for the first time.

FeatureMILL 3D MX provides a greater number of strategies, including spiral finishing, flowline finishing and rotary machining, support for multiple-surface machining and automated feature recognition. It is aimed at companies with conventional machine tools and those that are machining softer materials.

FeatureMILL HSM also contains all of the options for rest machining, such as pencil machining and corner clearance, and high-speed machining, including trochoidal machining and Delcam's patented Race Line Machining. It maximises the benefits of any investment in high-speed mills with strategies that maximise machine productivity while protecting the part, machine and cutter from excessive wear.

FeatureCAM HSM also includes a number of new strategies. Step cutting has been added within area clearance to remove large terraces that can be left on the part when using deeper roughing cuts. FeatureCAM will now produce extra toolpaths that step back up the terrace with the existing large tool, adding extra cuts at intermediate levels. This results in more material being removed, using the same tool within the same toolpath.

Automatic splitting of finishing between steep and shallow areas of the part has been available in FeatureCAM for a number of releases. This option has been enhanced with the ability to use the scallop height to control the stepover. Using this value rather than setting a constant stepover distance gives

better control of the surface finish.

Both roughing and finishing strategies now incorporate an "area filter" to remove small enclosed pockets within the part from the toolpath. Any attempt to cut these areas risks damage to the tool, even though it is mathematically possible to remove the material.

New five-axis strategies available in FeatureCAM 2013 include flowline machining between two curves, pencil machining and corner re-machining. These options for simultaneous five-axis machining allow a better surface finish to be achieved as well as ensuring access to more areas within the part in a single set-up.

New options have also been added to give smoother five-axis machining. A new look-ahead capability will remove any sudden tool-axis changes during automatic collision avoidance and, instead, ensure that a smooth transition takes place. In addition, FeatureCAM now offers the ability to smooth the Azimuth and Elevation axes independently and so remove excessive five-axis movement. These options stabilise the rotary axis movement by maintaining a fixed tool axis as far as possible, thus replacing constant five-axis movement with a series of 3+2-axis segments having full five-axis transitions between them.

A number of enhancements have been added to FeatureCAM's turning and mill-turn modules. Definition of the initial stock and part alignment has been improved, making it more similar to the set-up process for milling, support has been added for semi-finish canned cycles and curves of revolution can now be recognised from STL models. A new method has also been introduced allowing b-axis rotary milling to be carried out on features that would otherwise require the use of excessively long cutters.

The options for multi-spindle, multi-turret machines have been improved by fully integrating part transfers into the FeatureCAM output. Simulation and post-processing of these operations is also supported. In addition, the handling of synchronisation points has been enhanced to simplify the optimisation of the machining sequence between the various elements of the machine.

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GstarCAD MC PRO Officially Released

20 September 2012

A few days ago, GstarCAD released the latest mobile CAD software – GstarCAD MC PRO. Compared to previous editions, the biggest improvement of GstarCAD MC PRO is reading and writing .dwg files directly. This feature removes the obstacles to transmission and conversion of drawings on a mobile device and brings users a better experience of CAD application.

Before GstarCAD MC PRO, .dwg files cannot be read or written by most of mobile CAD software on the market. Users have to convert the format by PC or upload the .dwg drawings to the network server to do the format conversion before browsing them.

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To solve this problem, engineers of GstarCAD analyzed users' habits extensively. After a lot of hard work on the development, finally, we solved it. Users can open and save .dwg drawings directly by GstarCAD MC PRO. You no longer have to convert them from .dwg files to .ocf files with GstarCAD Windows edition. All you need to do is connecting your iPad/iPhone/iTouch to the computer and copy the drawings to your iPad/iPhone/iTouch. Then you can view and edit .dwg drawings anywhere and anytime.

This functional improvement has received a wide acclaim from users. To them, this innovation does not only mean the function is more powerful, it also means mobile CAD software is becoming more practical and convenient.

Besides viewing and editing .dwg files, GstarCAD MC PRO also can display East Asian font perfectly as well as customize font files which make browsing and editing CAD drawings more convenient and easy.

Mobile CAD software has only developed a short time, but it develops fast. In the future, GstarCAD MC will take suggestions from users widely and seriously, and make the most of new technology to create more excellent mobile CAD software.

Download GstarCAD MC PRO: <http://itunes.apple.com/us/app/gstarcad-mc-pro/id555578651?mt=8>

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GstarCAD to Release GstarCAD MC PRO

16 September 2012

GstarCAD is going to release a professional edition of CAD software --GstarCAD MC PRO. A lot of features were upgraded based on GstarCAD MC. Users can read a DWG format file via GstarCAD MC PRO without any conversion.

GstarCAD MC, which was released last year, is CAD software that can be used on mobile ends. Users can open, edit, share and save CAD drawings on a mobile device by GstarCAD MC. And it supports users to do communication, revision and annotation in the places of construction site, meeting room or outdoors, etc. Since the publish of GstarCAD MC, it was widely applied in communication of design scheme, on-site inspection of construction quality and progress, on-site annotation and so on. It has brought users great convenience.

After publication, according to users' feedback, GstarCAD has done a lot of work for innovation of the function of GstarCAD MC. For example the previous edition of GstarCAD MC could not open a DWG file directly. Users had to convert its format by PC before open it. And now, this problem has a perfect solution by the developers of GstarCAD. Users can open DWG files via GstarCAD MC directly without

conversion.

Besides, GstarCAD MC adopted font language intelligent analysis technology. It supports big fonts used in East Asia such as Chinese, Korean and Japanese etc. GstarCAD MC also supports *.shx font format. Users can edit the font mapping file and upload font file to extend the font library. This is a significant advancement compared with other similar products.

After publication of GstarCAD MC PRO, GstarCAD will finish a new arrangement of mobile CAD software: GstarCAD MC is divided into free edition and professional edition, free edition is used to open, edit drawings, but it cannot save the drawings; the professional edition supports open and saving drawings. The two editions are different from functions and position, each of them will provide users different choice according to their needs.

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IMAGINiT Technologies Updates Clarity and Launches IMAGINiT Clarity Workshare for Autodesk Revit

18 September 2012

Rand Worldwide today announced its [IMAGINiT Technologies](#) division has released IMAGINiT Clarity Workshare, the third product in the [IMAGINiT Clarity](#) family. Now, with Clarity Workshare architectural, engineering and construction firms that are not using the Autodesk Revit Server, can improve their traditional file-based work sharing approach and fully automate Revit related tasks. IMAGINiT Technologies has also added new features and enhancements to the Revit Server based products, IMAGINiT Clarity and IMAGINiT Clarity LT.

“Large architectural, engineering and construction firms around the globe embraced IMAGINiT Clarity for Revit Server because of the multi-firm collaboration, enhanced security and massive time savings resulting from the collaboration and automation tools,” says Bob Heeg, executive vice president, IMAGINiT Technologies. “Now our team of software developers has created a product specifically designed for firms who use Revit, but not Revit Server. Now anyone using Revit can gain similar advantages as the largest players in the industry when it comes to reporting, sharing real-time data with non-technical users and task automation.”

Now, organizations of any size can continue to use their traditional methods of collaboration, yet still benefit from the sought after task automation and reporting features of IMAGINiT Clarity. Internal team members and external partners can dramatically improve project collaboration, automate repetitive tasks, and provide valuable data to non-Revit users in real time with simple setup and easy administration.

“Clarity Workshare is a dream come true for BIM Coordinators,” says Damian Serrano, Assoc. AIA, BIM Coordinator, RLF. “The ability to expose rich data in the model and use it for creating customized reports helps us make better informed design decisions in a fraction of the time it would have taken

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before. In addition, the automated creation of output files – pdf, dwf, images, etc. - is a tremendous time saver and allows managers to track the progress of the models almost in real time.”

“While we are interested in Revit Server capabilities for collaboration with outside partners, we have many more projects that we perform in-house with the Revit worksharing capabilities,” says John Spangler, Information Technology Manager, RLF. “We are excited that IMAGINiT Clarity Workshare has come to the market because we know we’ll now be able to reap the benefits of Clarity task automation and reporting on all of our projects.”

Built upon the Autodesk Revit platform, IMAGINiT Clarity Workshare is compatible with both Autodesk Revit 2012 and 2013. New features enhance collaboration through an intelligent file sharing approach and automate essential tasks to significantly cut both the time and resources required.

Task Automation

Like the Revit Server-based versions, IMAGINiT Clarity Workshare enables tasks to be automated in three ways: every time a Revit file is updated; at a scheduled time (typically nightly); or on demand. Now mundane tasks happen automatically in the background, while freeing up staff to undertake higher value tasks. Whether the job is generating nightly PDF and DWF files or updating Room Datasheets on demand, IMAGINiT Clarity Workshare saves employees valuable time by taking care of time-consuming but low-value work.

To share model data with people who don’t use Revit, all IMAGINiT Clarity products provide new and enhanced export options when transforming model data into file formats. In addition to PDF, DWF, DWG, IFC and Image Export file formats, IMAGINiT Clarity products can now also automatically generate GBxml and FBX export files.

Team Accountability

IMAGINiT Clarity Workshare’s website dashboard makes project management and quality control easy. With server and project based logging, managers have the ability to review and monitor activity from wherever they are. Whether it’s an employee updating data files or a contractor opening a PDF that’s been automatically generated, the BIM manager can quickly confirm who has logged in, viewed specific data, made changes etc. And built with the mobile BIM manager in mind, IMAGINiT Clarity Workshare’s dashboard is managed just as easily on an iPad or Android tablet, as it is on a desktop.

Performance Advisor Report

Every version of IMAGINiT Clarity now also automatically generates the Performance Advisor Report. Save time conducting 17 Revit model performance checks that Autodesk recommends and then simply delegate a team member to fix any issues noted on the graphical report -- it’s that simple.

New Reporting Options

There have also been some significant new features to the reporting options that are now offered in all three IMAGINiT Clarity products. New reports include the Revisions Report, Detail Items Report, Material Quantity Report and the View Report and they can easily be exported in additional formats including Microsoft Excel. Creating these reports, displays data in ways that Revit cannot – allowing team members to review information they could never automatically gather before.

For more information, visit: imaginit.com/clarity.

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Knovel Adds Fire Protection Engineering and Emergency Response Subject Area

17 September 2012

[Knovel](#), today announced its newest subject area, Fire Protection Engineering and Emergency Response. The offering provides practical guidance for the design of safe buildings and structures, modeling performance of fire suppression and ventilation systems, planning for efficient egress of people, and emergency response that works with first responders.

Knovel's 30th subject area includes reference material from leading publishers and societies. With a focus on the design side of fire protection, the unique collection aims to support the inherently interdisciplinary work of fire protection engineers, whose work requires the ability to work with many disciplines -- from structural engineers and architects to tradesmen and constructors. Coverage of emergency response helps engineers think beyond egress design and suppression systems, empowering them to include the staging of first responders, risk management, investigation and recovery.

The new offering complements Knovel's existing Safety and Industrial Hygiene subject area, which serves the needs of health, safety and welfare managers at industrial or manufacturing facilities. The new subject area serves fire and risk management engineers working for engineering design and construction, petroleum, manufacturing, and specialty chemical firms that design buildings, factories and plants that are subject to risk from fire or explosion.

"Supporting fire protection and emergency response needs is critical to both the design process and the ongoing operations of industrial facilities and infrastructure," said Meagan Cooke, Knovel's director of content strategy and operations. "Knovel has teamed up with nearly a dozen publishers to launch this collection that will help engineers meet code requirements in uncommon situations and plan effective responses to emergencies at facilities."

Knovel's Fire Protection Engineering and Emergency Response Subject Area provides over 70 titles covering a wide range of information, including:

- Fire Protection Analysis
- Fire Protection Management
- Fire Science & Human Behavior
- Fire Protection Systems
- Passive Building Systems

Key publishers in the new subject area include John Wiley & Sons, PennWell, ASHRAE, ICHemE, Elsevier, AWWA, Steel Construction Institute/FABIG, US CDC, American Society of Plumbing Engineers and Smithers-Rapra.

For more information about Knovel's Fire Protection Engineering and Emergency Response Subject Area, please contact the Knovel sales team at (866) 240-8174.

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Knovel Releases New Titanium Alloy Database

18 September 2012

[Knovel](#) today announced the addition of the Titanium Alloy Database to its growing [Critical Content](#) line.

The mission behind Knovel's Critical Content line is to fill major gaps in technical content that make it difficult for engineers to do their jobs efficiently. Once Knovel identifies a gap, the company strategically works with credible sources and renowned experts to create the content those engineers are demanding.

"Titanium alloy property information is scattered amongst a number of disparate sources," says Sasha Gurke, Knovel's senior vice president and co-founder. "With this compilation of titanium alloy data, engineers across a variety of industries including aerospace and manufacturing will spend less time looking for the information they need during the design phase and more time focusing on their projects." The Titanium Alloy Database, developed by J. Gilbert Kaufman, includes physical and mechanical property data for more than 80 alloys, with summarized descriptions of condition and processing history.

Compelling features of this new database include:

- High temperature properties information such as strength and fracture data at high temperatures;
- An extensive list of often used properties of titanium alloys including the alpha, alpha-beta and beta type alloys;
- Typical applications and available product forms for numerous alloys.

For more information about Knovel's Titanium Alloy Database, contact Knovel Customer Support at +1.866.324.5163.

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PreSys™ Finite Element Modeling (FE) for Alibre Design™ Announced

20 September 2012

Users of Alibre Design™ (<http://www.alibre.com>), a 3D design software solution developed and distributed by 3D Systems, can now purchase the Inventium Suite™ add-on for finite element analysis. The add-on allows the user to automatically transfer Alibre Design model data into the finite element (FE) modeling tool, PreSys™ (<http://www.eta.com/inventium/presys>), of the Inventium Suite™, specify the necessary material and loading definitions, and finally perform analysis with NISA™.

"This new add-on addresses a segment of the market that has been typically under-served by finite element modeling and analysis vendors," comments Vipul Kinariwala, NISA™ Product Manager. "Often, they have provided overly simplified versions of their products and the tools have been inadequate to solve all but the most simple simulation tasks. This new product will deliver all of the capabilities found in PreSys™, for FE modeling, and in NISA™, for linear static and eigenvalue analysis."

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CAD designs can be simulated with this package, allowing engineers to predict and study stress and deflection performance of their product. This type of analysis allows the designer to reflect on results and improve and optimize designs early in product development. Significant reductions in product development time/cost and improvements in productivity/efficiency can be achieved.

The new add-on is available for 3D Systems' two business class CAD products, Alibre Design Professional and Alibre Design Expert. The Inventium Suite™ add-on includes NISA™ for linear static and Eigenvalue calculation and PreSys™ for finite element modeling and analysis. The package is sold together at affordable price-point and is available through Alibre distribution channels globally.

For further information about ETA and its products, please visit <http://www.eta.com>, call (248) 729-3010 or email etainfo@eta.com

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Synopsys Announces DesignWare DDR4 Memory Interface IP

18 September 2012

Synopsys, Inc. today announced the expansion of its [DesignWare DDR interface IP portfolio](#) to include support for next-generation SDRAMs based on the emerging [DDR4](#) standard. By supporting [DDR4](#) as well as DDR3 and LPDDR2/3 in a single core, the DesignWare DDR solution enables designers to interface with either high-performance or low-power SDRAMs in the same system-on-chip (SoC), which is a key requirement of many SoCs such as applications processors for smartphones and tablets.

"Synopsys' support for DDR4 memory is an important contribution to building a robust DDR4 ecosystem," said Robert Feurle, vice president of DRAM marketing for Micron Technology, Inc. "DDR4 brings substantial power and performance benefits to the industry, and Micron is aggressively driving its introduction. By implementing their DesignWare DDR Interface IP with backward compatibility in mind, Synopsys is enabling chip developers to bridge the transition from today's DDR3-based SoCs to the upcoming DDR4 designs."

Synopsys' DesignWare DDR4 IP solution consists of the [DDR4 multiPHY](#) and [Enhanced Universal DDR Memory Controller \(uMCTL2\)](#) that connect through a commonly used DFI 3.1 interface. The new DDR4 IP supports all key DDR4 features planned for the upcoming JEDEC standard and, compared to the previous version, includes a 13 percent increase in raw bandwidth, up to a 50 percent reduction in overall latency and new low-power features that provide intelligent system monitoring and control to power down elements of the IP as determined by the system's traffic patterns. Real-time scheduling features in Synopsys' unique CAM-based DDR controller can optimize the scheduling of data read/write traffic from multiple hosts, maximizing performance and minimizing latency.

"While the initial target markets for DDR4 are networking, server, and compute platforms, engineers designing for digital TVs, set-top-boxes, multi-function printing, smartphone and tablet applications will also adopt DDR4 DRAM as prices drop and performance improves," said Desi Rhoden, executive vice president, Montage Technology, and JEDEC memory chairman. "Synopsys has leveraged their participation at JEDEC to develop DDR4-compatible products before the actual standard has been

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released, which is a key benefit of JEDEC membership."

"Synopsys' complete DDR interface IP portfolio includes support for LPDDR, LPDDR2, LPDDR3, DDR, DDR2, and DDR3," said John Koeter, vice president of marketing for IP and systems at Synopsys. "With this announcement, we are broadening our portfolio to include support for DDR4 while maintaining backward compatibility with existing JEDEC standard SDRAMs. As new DDR standards evolve, designers look for reliable solutions. Synopsys' track record of over 320 DDR IP design wins demonstrates that we offer a low-risk path to silicon success."

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The Vectorworks 2013 Product Line Represents an Evolution in Design Software

18 September 2012

Nemetschek Vectorworks, Inc. is pleased to announce the release of the 2013 version of its Vectorworks® line of design software, including: Vectorworks Designer, Architect, Landmark, Spotlight, Fundamentals and Renderworks®.

"The world of design is changing. BIM has a continuously growing influence on the AEC Industry, cloud technology is adding freedom and convenience to the design process and the competitive economy is increasing the need to create stunning presentations to win business," said Sean Flaherty, CEO of Nemetschek Vectorworks. "Whether you're an architect, a landscape professional or an entertainment designer, we know your process as a designer is evolving. With Vectorworks 2013, you'll discover new tools and forms of collaboration to support your design practice, streamline your workflows and improve your efficiency."

The Vectorworks 2013 product line contains more than 80 improvements, including new commands and tools. Performance in many areas of the program has also been improved, and examples of this include wall network manipulation, hidden line rendering, changes to Vectorworks Spotlight lighting devices and 2D navigation of Vectorworks scenes.

"Feedback from our users is one of the most important resources we have to identify opportunities for improvement, and this release of Vectorworks software reflects the requests we've received from designers who use the program every day," said Dr. Biplab Sarkar, Chief Technology Officer of Nemetschek Vectorworks. "We've improved our 3D modeling capabilities, added new file export options for greater interoperability and enhanced the performance of several key functions."

The 2013 version of Vectorworks software delivers several major improvements, including:

- **Greater interoperability:** Enhancements to already robust file imports and exports, such as IFC, DWG/DXF and ODBC, plus new file format support for Rhinoceros® 3DM, DWF®, FBX®, COLLADA and gbXML® make the Vectorworks platforms the most interoperable design

software.

- **Better BIM tools:** Improvements to the program's BIM tools will allow designers to simplify complex BIM tasks. The new Auto Hybrid command allows users to graphically convert complex, free-form modeling forms into proper 2D representations with data, and users will experience more 3D support with 3D door and window tags and a completely re-engineered roof object based on the Parasolid® modeling kernel. Also, the Create Detail Viewport command provides an efficient way to automatically create cropped viewports, allowing for better navigation between detailed views and the model.
- **The best in 3D modeling:** This release includes improvements to provide an efficient and effective level of modeling, such as the new Clip Cube mode, which provides additional visibility control over large complex models, and the Surface Array command, which allows for duplication of 2D and 3D geometry onto planar or NURBS-based surfaces and allows for the design of complex models, such as roof systems, curtain walls and stadium-like structures. The program also features improved perspective projection, which allows users to work with models in a full-screen perspective view with configurable horizon and includes the option to turn on the cropping window when setting up views for presentation renderings.
- **Integrated, robust rendering tools:** New improvements to the Renderworks rendering application include non-blocking rendering, which allows the user to continue working on a project while a scene renders sheet layer viewports or images from the Render Bitmap tool; physical sun and sky backgrounds to provide natural lighting that automatically responds to a location, date and time of day; and a new Arroway® Textures library, which includes wood veneers, concrete, wood flooring, stonework, tiles and other construction materials.
- **Improved efficiency:** Navigation enhancements increase the speed at which users can move around a drawing. Other improvements include support for custom line types, hyperlinks, align/distribute leader lines and images in worksheet cells.

Please visit www.vectorworks.net/2013 to learn more about the product line.

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ThinkDesign Product Suite Built with HOOPS Exchange and HOOPS Publish

18 September 2012

Tech Soft 3D and think3, creator of 2D and 3D CAD design solutions for the manufacturing industry, announce that the latest release of ThinkDesign is integrated with HOOPS® Exchange and HOOPS Publish. ThinkDesign, think3's advanced parametric CAD system dedicated to solid, surface and hybrid modeling, is scheduled to ship in the third quarter of 2012.

HOOPS Exchange and HOOPS Publish are data access libraries and 3D PDF Publishing SDKs developed by Tech Soft 3D. These technologies enhance ThinkDesign's portability with extensive 3D CAD data access and the ability to output rich, ISO-standard 3D PDF files. With fast, accurate 3D CAD libraries available, think3 will continue to offer its customers performance and flexibility for easy

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adoption into a variety of manufacturing workflows. HOOPS Publish enables this design data to be further shared with 3D PDF output using PRC, the native 3D PDF file format, developed by Tech Soft 3D.

“The dedication and the great collaboration between our combined development teams has allowed a fast and effective integration of HOOPS Exchange and HOOPS Publish into ThinkDesign,” says Patrick Bosinco, Head of R&D of think3.

“Think3 is committed to providing versatility to its customers,” says Tech Soft 3D VP of SDK Products, Gavin Bridgeman. “HOOPS Exchange enables ThinkDesign to provide its users access to the 3D CAD formats they require, and extend the value of their design with lightweight, collaborative 3D PDF output.”

For more information visit our site at <http://www.think3.eu>

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Zuken Incorporates Würth Elektronik Design for Manufacturing Rules into CADSTAR

20 September 2012

Zuken and Würth Elektronik, announce that design principles and layer stacks from Würth products will be incorporated into the next version of CADSTAR as part of a new collaboration that will help create higher quality PCB designs.

By including Würth Elektronik’s latest design rules in CADSTAR, Zuken’s desktop powerful PCB design solution, the companies will optimize and simplify the PCB construction process, resulting in improved manufacturability and affordability.

Stefan Keller, Product Manager for HDI/Microvia at Würth Elektronik, said: "We've defined a shared set of design principles for PCB features such as layer stack-ups, route-widths, spacing and via sizes. By implementing them as templates in CADSTAR during the layout process, we can achieve significant benefits in reliability and efficiency for developers, designers and manufacturers. "

Communication increases reliability and efficiency

With PCB designs becoming more complicated and manufacturing costs squeezed, it is more important for PCB designers to communicate design details to their PCB manufacturers at an early stage. Ignoring this step can lead to unbalanced designs, inaccurate design data, increased costs and reduced reliability. Zuken and Würth Elektronik’s collaboration addresses this critical issue.

Jeroen Leinders, CADSTAR Distribution Manager at Zuken, explains further: "The adverse effects of design data not defined with upfront manufacturer-driven rules occur mostly when designing complex, high-speed printed circuit boards. For impedance-controlled boards with fine pitch BGA components and HDI microvias, the layer structure must be designed with precision and specifications of both the components and PCB manufacturer must be considered."

Würth Elektronik’s design rules and layer structures will be incorporated into the latest version of

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CADSTAR as templates which can be applied during the layout process. They will be available for download from Zuken Global Support for all on-maintenance customers.

This collaboration also means that PCB designers can look forward to further design for manufacturing improvements in the future.

Zuken Innovation World

Hear more about Würth Elektronik's collaboration with Zuken at Zuken Innovation World conferences across Europe www.zuken.com/ziw

For further information about Würth Elektronik, see: www.we-online.com

For details of CADSTAR resellers, see: <http://www.zuken.com/cadstardistributors>.

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