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Event Report: UGS Connection Americas 2007

UGS pitches new technology and explains acquisition by Siemens.

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Tilo Brandis, president of Electronics Assembly Systems, a subdivision of [Siemens AG](#) Automation & Drives (A&D) Group, may have found the most succinct way to explain why his firm is paying nearly US\$3.5 billion to buy UGS.

Earlier this year, when the deal became news, *Managing Automation* pondered, "What does a giant engineering and automation company like Siemens AG want with UGS, a design and product lifecycle software vendor?" ("[Dangerous Intersection](#)," February 9, 2007).

The answer is quite simple. Brandis' bosses in Germany are thinking like the hockey legend Wayne Gretzky. In the words of the Great One on the ice, they plan to "skate to where the puck is going, not where it has been." In other words, the merger is an anticipatory move, calculated to converge with the industry's trajectory. They're betting that what the two companies can jointly bring to the market is what manufacturers will eventually demand.

At any rate, that's what Brandis told the estimated 2,200 that had gathered in Long Beach, California, last week for [UGS Connection Americas 2007 Users Conference](#). The event, organized by the independent UGS user community PLM World, was formerly known as the PLM World Conference.

Greetings from PLM World

Last Monday at 8 a.m., clutching spiral-bound agendas, hundreds of people marched across the Long Beach Convention Center's sunlit terrace. They packed the ballroom on the upper deck, where Tony Affuso, UGS chairman, CEO and president, was expected to address them. But Affuso was in Germany, working with his counterparts from Siemens to finalize the well-publicized acquisition. So he delivered his greetings via video message.

"The planned acquisition of UGS by Siemens is not yet closed," he said, "but we do expect it to close sometime in the next 30 days."

To borrow a medical cliché, most analysts have been cautiously optimistic about the transaction. They anticipate that UGS software solutions and Siemens industrial systems will spawn an advantageous combo. But some foresee more than a few hurdles in aligning the UGS entrepreneurial culture and Siemens classical tradition. (See "[UGS Changes Hands -- Again](#)," January 29, 2007, *Cadalyst Daily*).

To quell these lingering anxieties, Affuso said, "As evidenced by our shared cultures of openness, both in technology and in our business models, we are very similar. Each company has a strong engineering innovation culture. ... While they have not been seen as such, Automation & Drives [the Siemens division that'll eventually control the destiny of UGS] is already one of the leading software companies in the industrial sector."

Synchronized Corporate Doctrines

Siemens' Tilo Brandis, the international point man for integrating UGS into Siemens, made the transatlantic journey to Southern California. He reinforced Affuso's notion of corporate harmony with some statistics of his own. "We spent about 5.7 billion Euros in R&D. We have about 50,000 people in R&D. About 30,000 of them are software engineers."

To counter the perception of Siemens as a straight-laced company, Brandis shared some numbers on innovation, culled from the company's 2006 annual report. "In fiscal 2006, our researchers submitted more than 10,000 invention reports. ... We filed patent applications for over 6,000 of these inventions. ... Our portfolio now comprises more than 62,000 patents" ("Letter to Our Shareholders," *Siemens's 2006 Annual Report*).

On Thin Ice

To assure UGS users that the acquisition wouldn't introduce any turbulent changes, Brandis said, "We believe we don't have to change anything once we've acquired UGS because things that UGS talks about are very consistent with how we see the world."

He pointed out, "What Siemens brings is financial strength." That strength, however, is presently undercut by news of Siemens' alleged bribery and embezzlement scandals. Bloomberg.com recently reported, "Siemens shares fell yesterday after Chief Executive Officer Klaus Kleinfeld, who cut more



Tilo Brandis, Siemens president of Electronics Assembly Systems, Automation & Drives.

than 7,000 jobs and spent \$12 billion on acquisitions, said he'll step down. A probe started in November into bribes for clients has spread to at least six countries and last week prompted the departure of Chairman Heinrich von Pierer" ("[Siemens Says All Divisions Met Profitability Targets](#)," April 26).

NX 5 Updates

Paul Brown, marketing director for UGS NX, and Joan Hirsch, VP of UGS NX development, knew they were in an unenviable position. As copresenters of the Monday afternoon sessions on NX 5, they held the dreaded 1 p.m. post-lunch timeslot, generally the drowsiest period for tradeshow attendees. They came up with an ingenious solution. They allowed a comedian, who personifies technological conservatism, to periodically interrupt their slideshow. ("I like constraints," declared the so-called Mr. CAD Man, bounded in ropes.) They also buffeted their demonstrations with magic, acrobatics and juggling acts to alternately highlight NX 5's intuitiveness, flexibility and interoperability.

The new NX user interface is expected to offer both role-based and task-based customization. "Out of the box, you have many roles to choose from. They're tailored to various industries, users that are part-time users, more casual, like the design engineers. ... Roles are important because there're thousands of capabilities that many people won't be using, and it can confuse a new user," Hirsch said. (Raj Khoshoo, UGS VP of strategic initiatives, poked fun at himself when he observed that the interface for the executive-type user is "highly simplified.")

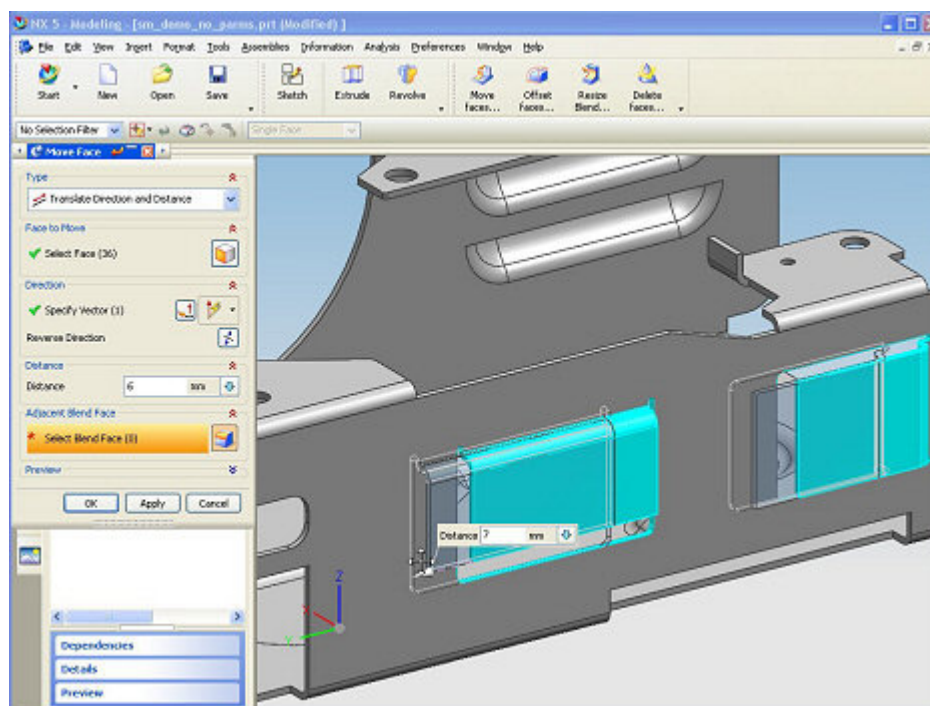
Betting on JT

Design Freedom, a new NX 5 feature, comes from its emphasis on JT, UGS's 3D data exchange format. In the announcement of the launch of NX 5, UGS states, "NX 5's embedded JT technology delivers five times the graphics performance and reduces memory usage by 70%. For Teamcenter/NX users, this enables true configuration-driven variant mockup."

In her presentation, Hirsch observed, "JT is much more memory-lean, and it supports LOD," or Level of Details, a treatment that allows large assemblies and models to be loaded relatively quickly by varying the level of detail displayed.

In the same NX 5 announcement, UGS writes, "The ability to work on geometry without defined features or history adds an important new level of flexibility, enabling changes to be made in minutes that may require hours in other systems."

According to Hirsch, "ribs, slots, bosses, pockets, regions, connected blends on these regions -- you can select all of those and operate on them as a unit." In her demonstration, Hirsch was able to use a mixture of feature-based (or parametric) modeling methods with direct modeling methods to edit the parts.



NX 5, as demonstrated at the conference, offers both parametric modeling and nonparametric modeling functions.

Velocity Updates

On Tuesday morning, Bill McClure, UGS VP of Velocity Series, pitched his division's products to small and midsize businesses (SMBs). SMBs are defined as those with annual revenue of less than \$750 million, employing less than 200 engineers -- however, UGS press officials clarify that the Velocity Series is ideally suited for organizations with 5-50 engineers with \$250 million or less in annual revenue. McClure was careful to point out that autonomous units within large firms might also fall into this category.

"The target is to deliver a set of modular solutions, preconfigured with industry best practices that are easy to use, easy to deploy, focused on the Microsoft platform and provide a low cost of ownership," he declared.

The Velocity Series bundles Solid Edge, the UGS midrange CAD product; Femap, an analysis package; Teamcenter Express, an engineering data management program; and NX CAM Express, for numerically controlled machining.

Multilingual Teamcenter

"[In Teamcenter Express V2], we've also added Translation Services," remarked McClure. "It's preconfigured so it sets up all the typical translation services you might want or need." These include:

- Solid Edge Draft to PDF, DXF and TIFF
- NX Draft to CGM, HPGL and TIFF
- All 3D CAD formats supported by Teamcenter Express to JT
- Microsoft Office documents to PDF

The new version gives users the option to export a Design Review package: a zip file, or what UGS calls a packaged collaboration file containing various 2D and 3D documents. "It lets you send that file outside of your organization, might be a supplier or a customer working in an unmanaged environment," explained McClure. When they receive that, they can use the free viewer [downloadable from UGS]. What's important about this is, we keep track of what you send out in this file, so it follows all the where-used controls, so you know what you've included in that file."

Solid Edge and Femap

McClure reveals that Femap will be updated with Data Services, a feature that allows users to map temperature, load and other information they may have collected empirically onto a one-dimensional or two-dimensional surface for advance analysis.

Solid Edge V20 is expected to be PDM-aware, or Teamcenter-aware. "So when you open a file, the system will automatically check that file out of Teamcenter," explained McClure. "The line between CAD and PDM [product data management] is blurring. It's becoming one operation, one design process." The new version is reportedly vested in service-oriented architecture. "It brings more robust interaction between CAD and PDM," according to McClure.

V20 comes with automatic assembly constraints. "It allows you to import assemblies from other CAD systems in STEP, IGES or Parasolid. Then [Solid Edge will] go through them and automatically assign assembly constraints between the parts and the assembly," McClure explained. It also supports xrefs from AutoCAD. He reminded the attendees that Solid Edge 2D is still available for free.

Before concluding, McClure delivered a parting shot aimed at Solid Edge's main 2D competitor. "If you've got AutoCAD 2D seats in your company today, there's no reason to continue them -- replace them with Solid Edge 2D," he urged. As of March 31, he had seen 50,000 Solid Edge 2D downloads, with 34,000 reportedly in manufacturing.

UGS Buys an Island

Realizing that there's real money to be made in Second Life -- Linden Lab's online virtual community -- businesses including IBM and Autodesk are flocking to this new frontier to promote their name brands. Last Monday, the digitally reincarnated Tony Affuso stepped (or teleported) into this world to launch the [UGS Innovation Connection](#), a place accessible only in Second Life. In doing so, Affuso joined the likes of IBM's Sam Palmisano and Autodesk's Carl Bass, both of whom are now Second Life citizens.

Chris Kelley, UGS VP of partner and platform marketing, said, "Primarily, we're there because our customers are there." The current UGS setup in Second Life houses a customer gallery, featuring products from Hendrick Motorsports, JCB and the JCB DIESELMAX, and The Alloy. Kelley pointed out UGS's presence in Second Life is also a move to intercept the next generation, to introduce itself to the current Second Life denizens that might eventually grow up to be engineers.



Following in the footsteps of IBM, Autodesk and other businesses, UGS leaps into the virtual world Second Life. The current setup features products from UGS customers, displayed as a 3D gallery.

Kelley revealed he and his colleagues in the marketing department are keeping a close eye on other virtual worlds too. Entropia Universe, Areae Inc., Outback Online, The Sims online, There and Activeworlds are currently on their radar. That raises the possibility that Affuso might need half a dozen extra avatars.

Modality of the Audible

PLM World's mission is "to be the voice of the user," according to the organizers. Given that UGS provided logistical and financial support this year to the tune of approximately \$2.5 million, according to UGS' Raj Khoshoo, one could conclude that UGS had significant influence on the event as well. This was the first year that press was invited to the event since its debut nearly 30 years ago.