

# Siemens PLM Software Analyst Conference 2015

## *CIMdata Commentary*

### *Key takeaways:*

- *Siemens PLM Software's annual Analyst event highlighted the progress they have made integrating some key acquisitions like LMS and Camstar, and leveraging Siemens AG's intellectual assets*
- *They introduced a new drawing tool, Catchbook, designed to enable casual users to easily create drawings and capture their ideas and/or highlight issues*
- *Demonstrations showed integrations between product development and product realization and illustrated how Siemens PLM Software's investments in modeling, simulation, and production can be used to achieve virtual products and virtual production environments that can be validated before capital investments are made*

CIMdata recently attended Siemens PLM Software's (Siemens) Analyst Conference held in Boston, Massachusetts September 8<sup>th</sup> through 11<sup>th</sup>. For the first time, the PLM event was linked with one of Siemens AG's Building and Energy Management events, sharing a joint keynote address on the 8<sup>th</sup> delivered by Dr. Horst J. Kayser, Siemens AG Chief Strategy Officer on "The digital change constant."

Dr. Kayser discussed how digitalization is changing everything and that by 2020 there will be five times as many connected devices as connected people. This is creating new products, services, and business models that are changing and disrupting markets. He stated that people are moving beyond being just consumers to becoming "prosumers." For example, they are generating energy and putting it back on the power grid—forcing changes in how power is created, distributed, managed, and priced. Dr. Kayser said that we are starting to see self-optimizing machines and increased use of remote maintenance—examples of how digitalization is constantly causing change (and disruption) of products, services, and business models.

To address this trend, Dr. Kayser said that Siemens AG's Digitalization Strategy is built on three components, in which Siemens AG has invested over €4 billion since 2007:

- Digital services—he claimed that Siemens AG had about 30 digital offerings, and generated FY 2014 revenues of €0.5 billion, up 5% over the previous year
- Vertical software—with €2.4 billion in FY 2014, up 9% over the previous year
- Digital enhanced electrification and automation—the company strengthened its position as the #1 automation provider in industry, buildings, grids, and power plants

To implement this strategy, he stressed that Siemens AG can bring to bear over 28,800 researchers, 220 data scientists, and over 17,500 software engineers at 150 R&D centers around the world. In previous meetings the Siemens PLM Software team emphasized how they can leverage Siemens AG resources, and Dr. Kayser's presentation illustrated the size of the commitment and resources available.

In the PLM opening keynote on Wednesday the 9<sup>th</sup> of September, Chuck Grindstaff, Siemens PLM Software CEO and President, reported solid growth for Siemens PLM Software during the previous year with 18% overall growth (10% in constant currency) including 13% license

revenue growth. Each major domain of Siemens showed good growth according to Mr. Grindstaff. Mr. Grindstaff stated that CAx and digital manufacturing revenues increased 8%, manufacturing operations management (MOM) was up 13%, and collaborative Product Definition management (cPDm) up 16% (all in constant currency). He further reported that over 80% of Teamcenter customers were now running on the Teamcenter Unified Architecture (TcUA) platform. CIMdata believes that this rapid adoption of TcUA—50% of customers within 5 years and 80% within 10 years of initial release—will help Siemens expand the use of their overall product suite within their customer base as it provides a more modern, flexible platform for evolution compared to previous versions of Teamcenter.

Mr. Grindstaff discussed Siemens' continuing focus on digitalization to help companies address the ever-increasing complexity of new products, and that digitalization weaves a digital thread through the entire value creation chain. He quoted a study by Roland Berger Strategy Consultants that claimed product complexity has more than doubled in the last 15 years while product lifecycles have shortened by about 25%. To illustrate this growth, he noted that even a watch might contain 12 million lines of code.

Mr. Grindstaff described how technology is transforming business models, changing how ideas come to life (including crowdsourcing design and systems-driven product development), and changing the way products are realized (e.g., using 3D printing and advanced robotics). According to Mr. Grindstaff, digitalization is the strategy required to realize smart innovation and develop the smart products of the future. He also introduced a new Siemens product called Catchbook that is intended to help new generations of users capture their ideas by being able to draw more easily and enable more people to participate digitally.

Mr. Grindstaff reiterated Siemens' strategy of a "Smart Innovation Portfolio" built on the Teamcenter platform and how the portfolio is being expanded across the Siemens' product line. This message was reinforced by each of the Siemens presentations delivered at this event. CIMdata has frequently discussed the need to create and build on platforms for all major business domains such as PLM. Siemens' approach supports this concept.

Throughout this Analyst Event, presentations alternated between Siemens providing information and updates on their strategy, product portfolios, and solution suites and customer presented case studies. The Siemens presentations providing information on new capabilities and how the Smart Innovation Portfolio elements are being applied and leveraged throughout their PLM solution portfolio. Each of the case studies provided insight into how Siemens products and services are enabling their customers to address the digitalization pressures impacting their businesses.

Paul Sicking, SVP, Chief Technology Office, led a demonstration of the Smart Portfolio that provided more insight into Catchbook and he stated it would be available this fall on Mac, PC, iOS, and Android devices. Catchbook is a drawing productivity tool—for anyone who would like to draw accurately without the need for CAD. It is intended to help capture ideas or issues. For example, if a user hand draws a circle, Catchbook turns their rough circle into an accurate one, using the D-Cubed geometric constraint engine to interpret their wishes and create accurate geometry, which then can then be manipulated parametrically. If you want to shorten a line, then just scribble on the end and Catchbook interprets your wish. It also includes Save As and sharing options similar to other mobile apps. CIMdata thinks that providing new tools like Catchbook that enable more people, particularly beyond the product design groups, to easily create and document their ideas, will increase innovation and

collaboration across a broader scope of the extended enterprise. For more information on Catchbook please go to: [www.catchbook.com](http://www.catchbook.com).

Kirk Gutmann, SVP, Industry Strategy, provided an update on Siemens' industry strategy and the status of its Catalysts, primarily comprised of prepackaged bundles of software, data model extensions, implementation guides, and processes designed to accelerate deployment of Siemens' solutions and deliver improved time to value for their customers. Siemens currently has 18 Catalysts available across their eight focused industry segments as shown in Figure 1. Mr. Gutmann stated that in the next generation of their Catalysts they would be incorporating services best practices. CIMdata believes that Siemens Catalyst approach can help their customers achieve a faster return on their PLM investments and that adding the service practices will expand the use of the Catalysts.

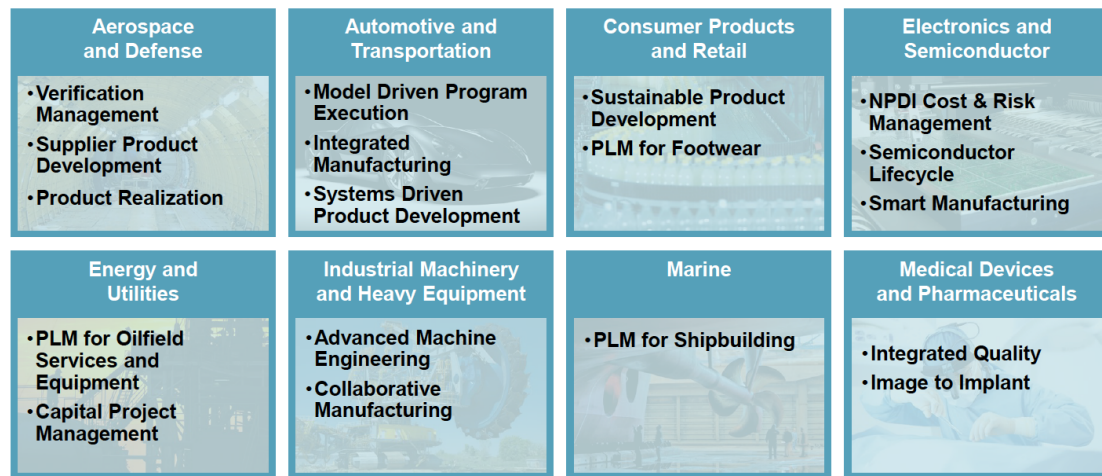


Figure 1—Siemens Focused Industry Solution Catalysts

While Mr. Guttmann's presentation focused on how to quickly get customers up to speed with industry solutions, Eric Sterling, SVP, Lifecycle Collaboration Software, provided an update on Teamcenter, the data and process management engine at the core of Siemens' Smart Innovation Portfolio. Mr. Sterling provided more details on their "Rapid Start" offering, that was designed to get Teamcenter up and running for 20 CAD users in 4 hours. (The necessary training to use this high-powered solution still takes several days, however.) He claimed that Siemens has made great progress in customer adoption of Active Workspace, their new user interface (UI) for Teamcenter users, with both casual and increasingly expert users. CIMdata believes that the evolution and expansion of Active Workspace will improve user adoption of Teamcenter and other Siemens' products. Customers who are using Active Workspace have indicated that it has had a positive impact on their users and overall productivity of their PLM environment.

Mr. Sterling also talked about a new offering on Reporting and Analytics that will be available this Fall. CIMdata believes that integrated and effective reporting and analytics are crucial as customers need to deal with, interpret, and act upon the dramatically increasing volume of data being generated by their smart connected devices. Siemens acquisition of Camstar and their Omneo solution provides a critical component to meet this need. His presentation also mentioned their integrated materials management offering, announced earlier in 2015, again an essential component in a world where people are not just designing products but are often designing the materials used in their construction—more and more important as additive manufacturing becomes more prevalent.

Mr. Juha Pankakoski, Chief Digital Officer and CIO of Konecranes, discussed how Siemens products, including Teamcenter and NX, have been used to create a single source of truth for all product related data (mechanical, electronic, and software) and how Konecranes is leveraging that data to manage their product portfolio and implement their strategic vision. A key aspect of Konecranes' vision is to provide real-time service for both Konecranes customers and competitor equipment by leveraging the industrial Internet. They currently have connections to sensors on over 9,500 customer devices around the globe and are using the raw sensor data to improve safety and productivity by applying analytics and domain knowledge. While the IoT is just starting to get traction in consumer markets, it has been in production use for years in industrial settings. An important point raised was that, to provide value, IoT needs much more than raw sensor data feeds. The data must be processed using analytics to identify business critical information and present it in an understandable and actionable format.

Dr. Helmuth Ludwig, Siemens EVP, Chief Manufacturing Officer talked about improving competitiveness via digitalization, the process of converting all core processes from design through execution to digital methods. Dr. Ludwig's team is developing an integrated portfolio of technologies from a variety of Siemens products and acquisitions including Simatic IT, Camstar, and IBS QMS to support product realization through Manufacturing Operations Management. Digital product definitions from NX, Teamcenter, LMS, and other creation tools are virtually produced and validated aiding in smooth, profitable product launches and production. CIMdata sees Siemens' ability to provide technology and services that support the Digital Twin, i.e., linked virtual and physical product representations, as providing a valuable capability that can enable their customers to more quickly and efficiently design, validate, produce, and support products.

Jim Rusk, SVP, Product Engineering, outlined the Siemens PLM roadmap in CAD and CAE by highlighting recent enhancements in the released version 10 of NX, and discussing deliverables intended for NX 11 and beyond. One special area of focus is on freeform modeling and the NX Realize Shape capability. NX Realize Shape introduced subdivision surface modeling and its interaction with industry standard NURBS modeling. NX 11 will expand upon those functions with mixed facet and NURBS modeling and class A surface parametrics. CIMdata views Siemens' strategy to incorporate more faceted geometry and modeling techniques right in line with the growth of additive manufacturing processes. Mr. Rusk also noted Siemens's continued reliance on the JT lightweight data format as their collaboration backbone in multi-CAD and supply chain environments.

All of the major PLM solution providers are talking about their cloud strategies, and Steve Bashada, SVP, Cloud Services, provided a welcome update on Siemens' strategy and programs. Mr. Bashada differentiated between their Software as a Service (SaaS) and Infrastructure as a Service (IaaS) offerings. Siemens claims many current products are available as SaaS, including NX CAE, NX Thermal, NX Flow, IntoSite, Omneo, and Solid Edge (trials). Teamcenter and NX are available as IaaS offerings. In particular, Siemens has rebranded Omneo's big data analytics offerings as Performance Analytics, with early adopter Dell stating that this offering "empowers us to discover hidden patterns in data in order to ensure optimal performance." CIMdata thinks this is a crucial part of the IoT vision and to achieving some of the benefits of digitalization posited by earlier speakers. The Omneo-based solution will be available on both public and private clouds.

Siemens continues to make significant progress in expanding and enriching their portfolio of PLM solutions. Very encouraging to CIMdata is Siemens' increasing interaction with, and leveraging of, other parts of Siemens AG, particularly their research and technical resources.

Siemens focus on digitalization and in providing the tools and solutions to create accurate digital twins and virtually validate and commission production environments can deliver significant benefits and savings to their customers. New products like Catchbook should enable more personnel across an enterprise to participate in product ideation and creation.

### **About CIMdata**

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