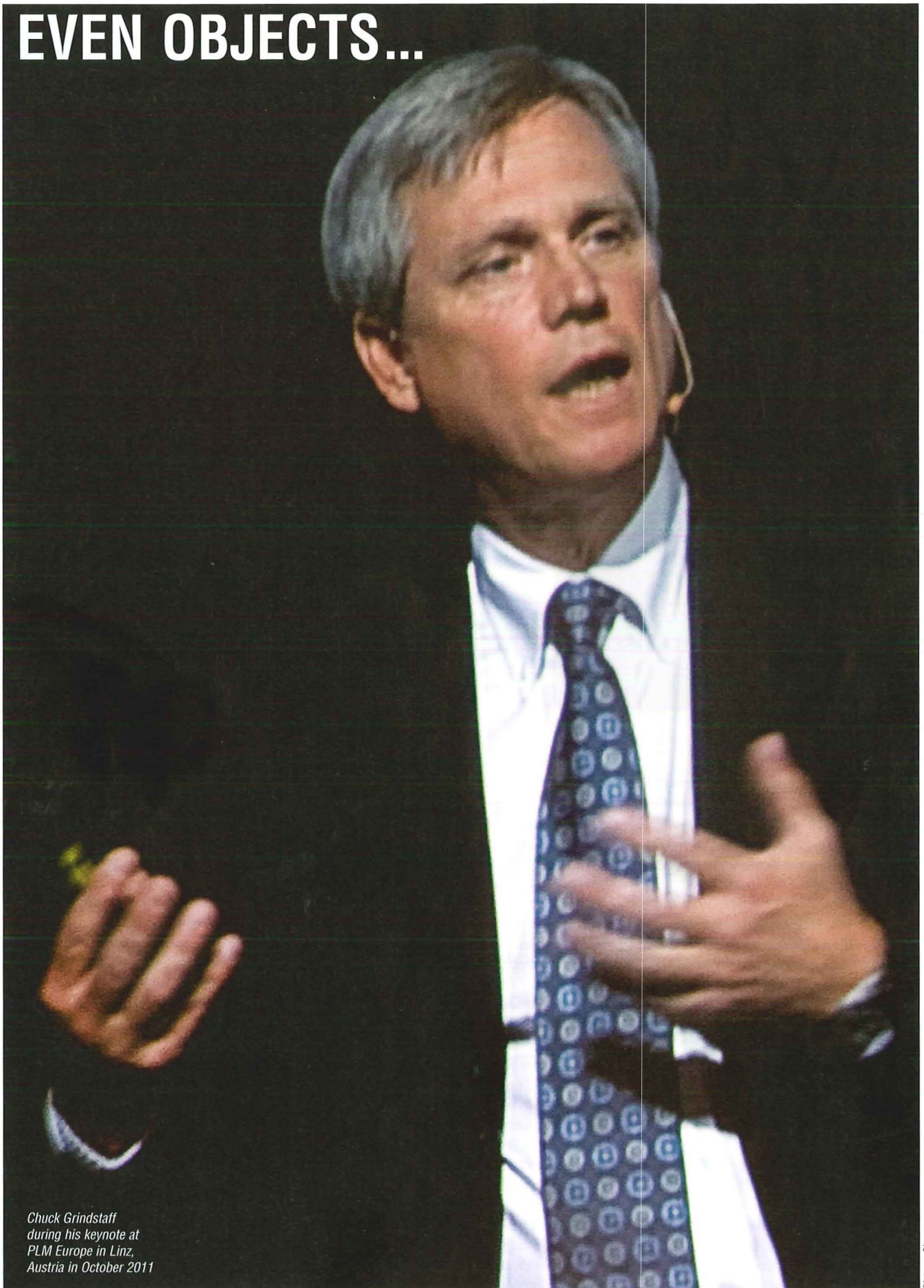


# EVEN OBJECTS...



*Chuck Grindstaff  
during his keynote at  
PLM Europe in Linz,  
Austria in October 2011*

Picture: Siemens

# ...HAVE A LIFECYCLE

Chuck Grindstaff, CEO of Siemens PLM Software, talks about how much of PLM has reached their customer base and about the usability of Teamcenter for plant design scenarios.

**Mr Grindstaff, as we saw in the opening session this morning<sup>1</sup>, about 80 percent of the auditorium identified themselves as Teamcenter users. And, even more interesting, the majority of them raised their hands when it came to the question “Who is using Teamcenter Unified Architecture?” How do you compare these results with the deployment rate of the other derivatives Teamcenter Engineering and Teamcenter Enterprise?**

What we have seen there was a really good flow through from the Teamcenter Engineering space to Teamcenter Enterprise to Teamcenter Unified Architecture. If you are looking for success stories as for the big ones I can quote General Motors...

**...but GM started with I-man, the former UGS PDM product. Have they completely migrated to Teamcenter Unified Architecture?**

Yes, they have. Another example is Nissan, they started on Teamcenter Enterprise and now they are running Teamcenter Unified Architecture.

**Have they finished their migration process?**

Yes, they have. You seem to be surprised?

**Yes, because this is really a big issue!**

No, for us it isn't.

**By the way, what is the actual implementation status at Volkswagen?**

No problems, they are rolling out their KPDM which is based on Teamcenter Unified Architecture in Version 7.1. Okay, we would like to get them on version 8.3. That is the next step.

**So, you are satisfied with PLM-readiness of your customers?**

Well, there are always things you would like to be better for large scales of implementations, especially when you have to deal with complex organizations with different points of views. With a company as complex as Volkswagen and Audi and their various point of views, there are always challenges. Keep in mind they try to realize a fully configured digital mock-up that allows them to take all the alternatives into account across the different processes and different technology platforms. I can tell you, the progress of this implementation is quite impressive.

**If you look for PLM applications beyond CAD, e.g. let's consider requirements management: What is the actual status there?**

We have a large number of customers, even those who were just starting with Teamcenter and simply deploy it to do requirements management. Typically, requirements management is integrated into a design workflow. The most value of a requirements management environment comes when you tie those specifications into specific authoring facts. That is why we have such capabilities in Teamcenter. The requirements have relationships to the characteristics of parts,

but it is a many-to-many relationship. So it is that big giant switch of all these requirements affecting potentially each individual part, maybe in several ways.

**In the context of requirements management usability is a big issue. Do you agree?**

Most people who deal with requirements in traditional environments became familiar with MS Excel or MS Word. So rather than telling everybody you are crazy using these tools, we allow direct connection to these tools: you can take a document that is written not even having Teamcenter in mind, and bring that document into Teamcenter. We parse that document and break it down into its individual objects, decode what is in there and create an object network. Each of those objects then is independent and has its own lifecycle. If the user wants to see a specific requirements document we can reassemble it from the latest version of objects and it looks like the document again. This is one aspect of ease of use.

**How are these object connections generated?**

It can be done automatically or manually. We understand why the objects are being connected or why it is a satellite from another object the kind of relationship is carried over.

**The parent division unit Siemens Industry Automation is addressing both the process and the discrete manufacturing industry and a lot of “hybrid” industries in between. Can you give us an insight into which way you address these different markets with different needs?**

In the discrete industries, configuration is a big issue and issues around product development are fundamental. So we have all the tools from requirements to program management, engineering process and data management, simulation data management, and of course, manufacturing data management.

You are right, the process industry is different. There, you have chemicals with their flow rates, recipes and so on. In this area we connect up with Simatic IT Interspect<sup>2</sup>. We mapped this into Teamcenter as well. So we are offering a very broad portfolio including software that is outside the work we were doing (in the Siemens PLM business unit). We are able to bring all this together, hook it up and drive it to a value point.

**How is Comos integrated in your considerations?**

In this context PLM means factory design. The Comos group is thinking in that dimension to bring electrical, functional and layout design and so on together with the core automation of a process factory. What we do is feed that environment data. But in some cases Comos by itself is sufficient.

**What does this depend on?**

How big or little configuration requirements are around what Teamcenter does. With both solutions we get across the entire application spectrum.

**How far is the underlying data model affected?**

<sup>1</sup>) Mr Grindstaff's keynote at the PLM Europe Conference in Linz, Austria, on October 17 2011.

<sup>2</sup>) Simatic IT Interspec is a configurable product specification management system for process industries to develop, configure and manage all product specifications.

<sup>3</sup>) [www.facton.com](http://www.facton.com)



The data model actually is very compatible. We invest a lot so that Teamcenter can represent those objects Comos cares about. So we have a lot of joint projects with our Industry Software colleagues. Siemens was able to find some additional million euros in 2011 and it will be even more in 2012, first to accelerate the integration and the cooperation of both R&D departments.

**At the end of your keynote you mentioned the reorganization of your management board. What are the reasons for the alteration?**

There are really three reasons. The simplest starting-point is: we want to make sure that our internal decision making process is executed in the most effective fashion. Each of the business units of Siemens PLM Software are now organized in such a way that the leaders have sufficient span of control to make very rapid decisions around things within the product. Item number two is: we want to be sure that we have the proper insight of each market segment, to have the right customer conversation, to have a clear industry focus. So we put Steve Bashada in that corporate role to look at all our industry strategies. Steve controls a portion of our R&D budget. So he has financial impact of each of our business units. The other focus is the technological reuse: we want to get the most reuse of all of our software and the CTO office is now focused on that, e.g. our JT or Active Workspace technology.

**Let us talk about the business value of PLM. Not seldom in the discussion with vendors I am missing this aspect.**

Oh, really?

**Yes, because it is more a features and functions-driven discussion...**

I don't think it should be.

**You are absolutely right. Therefore my question: Are your customers satisfied with your messages?**

Most of our customers don't select our technology by features and functions any longer. I mean there are some smaller ones who think that way. Maybe they have a different buying mode or they are buying from a reseller. But the enterprise customers we are engaged with are very aware of process flows and value from it or of collaboration with partners. Questions like: "Do you have a solution to bring third party engineering into my development environment?", are typical. And we make a proposition that the customer gains performance improvements. They are buying solutions to solve the whole problem.

**I am missing a cost calculation tool tightly integrated in Teamcenter. You know, it is not only about innovation, it's also about margins based on cost transparency during the whole development process.**

**We do cost analysis mostly with partners like Facton<sup>3</sup>. We make sure that our data model is sufficiently robust so that we can hook in cal-**

**... culation engines like this for optimizing the lifecycle cost so that we have the whole traceability of the incurred cost. Because the big challenge of cost is: how well do you know it at special gates.**

**Is it completely implemented?**

**I wouldn't say that is completely done but we are well under way. That is a good example: Nobody is finished with PLM, we are not, and our competitors are not. When I was younger I thought it would be done much more quickly.**

**What I will take away from this conversation is that your customers are aware of the scope of PLM.**

More and more. A lot of them have the vision to do quite a bit more than in the past. They have very strong views about how they can drive cost out of their organizations.

**Is a PLM system like Teamcenter necessary if there is a function-rich leading ERP system installed?**

If you are executing a factory order you need to have part numbers to be shared between the PLM and ERP systems. But this environment doesn't need to know all the CAE information for example. On the other hand, often there is a very rich technical data exchange between the PLM and ERP system, like what's reported to the regulatory agency or what the underlying tooling connections are. Typically, there is an intersection of data items and objects to be referenced, so our ERP interface can connect those business objects together with our technical objects so that we can have this communication.

**You sell Teamcenter as a PLM system. Then you have to deal with after-sales data as well.**

If you think about the management of maintenance, repair and overhaul...

**Yes, I do.**

Where is the technical data you need to keep, to properly to execute those activities? Is it simply a replacement of parts? If so, then you probably don't need a PLM system. But does it have to do with the engineering intelligence of that product? Then a PLM system makes a lot of sense. I would submit to you that for planes, trains, automobiles or plants, things of that kind of importance where a lot of engineering data is involved in order to really deal with the lifecycle, in the case of failures you may want to know how this is affected by just one supplier or by all the others. Maybe there is some business intelligence in here saying: yes, it doesn't matter from which supplier the part is delivered. The failure would still happen – that is an indication that engineering is involved.

**Thank you for your comments!**

Interview: BERNHARD D. VALNION