

**Conference program | September 25** -26 2012 Hilton Hotel | The Hague, The Netherlands



PDT Europe - two days of great presentations and meetings!

The major European event within **Product Data Technology** 

Organizer:

•eurostep-**CIMdata** 

Co-organizer:

## Welcome to PDT Europe

#### Theme 2012: Implementing STEP, PLCS and AP233 – Why, when and how

The interest in standards-based PLM/CM keeps on growing and so does the need to change and transform industries. A transformation will take place only when people are convinced.

It is important to make STEP and PLCS possible to understand, accept, and embrace! Significant progress has been made recently and must be shared.

People and organizations say that they need to be able to work across domains, disciplines, and enterprises – this is where the real potential lies. We are short of engineering resources, and time should be devoted to adding value and working in a more joined-up fashion – Lean and Agile PLM.

PDT Europe 2012 will address standards-based PLM and PLM integration with an emphasis on ease of use and understanding. We shall cover what business people need to know; and we shall cover what technical people need to know.

This year we shall look into the future and include SOA, Cloud, Apps, and state-ofthe-art secure solutions. We shall examine how these technologies enhance the benefits already provided by open and public standards.

You are each invited to contribute to PDT Europe 2012 in your own way: by presenting and/or attending, and by immersing yourself in the open atmosphere for which this forum is renowned.

This is the place to meet peers who are all looking to make it happen.

#### We look forward to seeing you in The Hague, The Netherlands!

Håkan Kårdén, Eurostep, Sweden Frederic Feru, Airbus, France Peter Bilello, CIMdata, USA Nigel Shaw, Eurostep, UK Erik Baalbergen, NLR, the Netherlands Sune Horkeby, Siemens Industrial Turbomachinery, Sweden

Programme committee for PDT Europe 2012.

# Agenda PDT Europe 2012 | Day 1—September 25

#### **Pre-conference sessions**

	T		
08.30- 09.00			
09.00- 09.45	The Business Case for PLM This session will discuss in general why PLM is needed and when. What is PLM adding to PDM? Can PLM be justified by an ROI or is it "strategic"? CIMdata is a global leader in PLM with services in consulting and training in PLM. Join this session to get the knowledge needed to answer "why PLM?" Gerard Litjens, Director of European Operations CIMdata	Introduction to Enterprise parts of STEP: PLCS STEP AP239 and STEP AP233 Systems Engineering A similar session has been held during recent PDT conferences and it has always been rated as one of the highlights. Join this session to learn from the developers of PLCS and people with implementation experience. Nigel Shaw, Managing Director Eurostep	
09.45- 10.30	The business case for PLM standards Building on the previous more generic PLM session this session is looking at the business case for standards in PLM. In this joint session CIMdata will explore the need for such standards and Eurostep contributes with real PLM-related standards case studies. Gerard Litjens, Director of European Operations CIMdata Magnus Färneland, Product Director Eurostep	Developing Data Exchange Specifications (DEX) based on PLCS and AP233 The PLCS DEX implementation community has driven PLCS to adopt mainstream specification tools and by the use of UML, specifically the SysML notation. This is in line with making the standard easier to use. This session is about this very recent development. This presentation will describe work that has been undertaken by the OASIS PLCS Technical Committee to address ease of use through the development of an implementation model for AP239 – the PLCS PSM which is being developed as an OASIS standard and a SysML based approach to defining Data Exchange Specifications (DEX) that specify the use of the PLCS PSM for a particular business need. Rob Bodington, Principal Consultant Eurostep	
10.30- 10.45	Registration for PDT Europe 2012 open		
10.45- 11.00		PDT Europe 2012 ers - Introduction of exhibitors	
11.00- 11.30	are generally complex being the result of systems integra Systems' primary customers are national governments al circumstances. This manifesting in the requirement for si Effective and efficient collaboration has never been more to product information are an essential part of this. The solutions many complying with common data exchange si highlights a few key considerations in creating practical p Malcolm Carrie, Global Head of Strategy & Architecture BAE Systems plc Malcolm is BAE Systems plc's Global Head of Strategy and a leadership to deliver coherence across BAE Systems plc's	ompany operating in the defence, aerospace and security sector. Its products and services ing the result of systems integration spanning multiple suppliers in multiple countries. BAE ers are national governments all of whom are dealing with challenging economic festing in the requirement for suppliers like BAE Systems to "do more with less". laboration has never been more important. Configuration management and secure access re an essential part of this. The market appears to provide a wide choice of technical g with common data exchange standards. This presentation asks "is this sufficient?". It derations in creating practical product data collaboration from a business perspective.	

11.30-	PLCS for data sharing between French MoD and Industry		
11.45	French MOD ratified STANAG 4661 (PLCS) in January 2010. Since then a number of initiatives have been taken to learn how to implement PLCS and clear progress have been made. PLCS is now the selected interface for exchange of product data between French MOD and Industry. This presentation will highlight the current efforts and plans.		
	Sébastien Olivier, ILS advisor DGA (Délégation Générale à l'Armement)		
11.45 - 13.15	Lunch		
13.15- 13.45	The challenges with PLM governance at Volvo Trucks and the transformation of business into a service-oriented and event-driven PLM		
	In a large and global operation like Volvo Trucks it is a huge challenge to operate and maintain a PLM system because of scale, 24/7, mix of legacy and new, etc. Volvo Trucks has for some years actively looked into possibilities with PLM and SOA and is now on that path towards implementation.		
	Introducing a service-oriented and event-driven PLM architecture into a large cooperation certainly requires a lot of concern and premeditation. This is especially true where the business processes and the IT architecture in place for many decades are adapted to a batch-oriented approach to product data exchange. The rewards from such an effort will be increased flexibility in the continuous evolution of the process & IT architecture, a further drive for synergies and thus a much enhanced efficiency in operations.		
	This presentation will provide some insights in the prerequisites and value analysis, formulation of a change management approach, and the definition of a roadmap from such a co-operation. Besides, it will provide the reporting of initial results.		
	Trond Zimmerman, PDM Manager Volvo		
13.45-	Boeing – initial implementations of PLCS. Reasons and early results		
14.15	This presentation will address the cost and business benefits of using standard payloads such as PLCS for modern service integrations, both intra company and in B2B. In contrast to the prevailing methods often used currently where each integration is unique, using standard payloads enables reuse at multiple levels.		
	These will be detailed out, including having taxonomy, adapters, workflows, and business processes. Additionally, the capability to make service contracts both unique and standard will be explored.		
	To wrap-up, the presentation will show how this integration framework supports a SOA architecture including agility to enable new business capabilities through service composition. Only the new PLCSlib will offer these benefits based on its underlying tooling model.		
	Jim Illback, Associate Technical Fellow Boeing		
	Mr. Illback is a Certified SOA Architect and Consultant, Thomas Erl SOA School		
14.15-	The CRESCENDO project – summary of a key European R&T initiative and key results		
15.00	In today's context of strong competitiveness, European aircraft, engine and equipment manufacturers are facing greater challenges than ever before. The market demands that more complex products be developed with shorter lead times and more cost effectiveness while using evolving business models involving multiple organisations.		
	Important step changes are required in Modelling, Simulation and Virtualisation capabilities in order to:		
	<ul> <li>Improve maturity at entry into service</li> <li>Improve engineering efficiency</li> <li>Better translate customer requirements</li> <li>Collaborative and Robust Engineering using Simulation Capability Enabling Next Design</li> </ul>		
	Optimisation" (CRESCENDO) is an EU co-funded R&T project with a 55 M€ budget, launched in May 2009 and ending fall 2012. The project is led by Airbus and brings together 59 organisations from 13 different countries, including major aeronautics industry companies, service and IT solution providers, research centres and academic institutions.		
	Peter Coleman, CRESCENDO Project Coordinator Airbus		

15.00- 15.30	Break
15.30-	Struggling with data exchange? Increase the complexity to make it simpler!
16.00	Data exchange is still the dominant way of communication with data sharing still in its infancy. Comparing email and shared areas for collaboration, email has been declared dead by many years back but we all know it continues to be heavily used.
	Product data standards have been used primarily to support data exchange. But there is an increased awareness that data exchange alone might not be what is needed. In fact, with SharePoint, Facebook, Linkedin, and applications in the Cloud, we are getting used to the notion of sharing.
	Problems with configuration management suddenly become easier to solve. Complex supply chains, or more correct supply networks, are easier to setup and maintain with data sharing. It will be much easier to have suppliers and partners participate on equal basis with the OEMs/MODs and 1 <sup>st</sup> tier suppliers/Primes. Lead time reductions can be substantial with this new paradigm and yes, it is possible to work with PLM data covering the complete life cycle of products.
	This presentation will discuss about data sharing and look at how PLCS and other standards can be used to facilitate data sharing, going beyond the document paradigm. This will enable new ways of integration where focus is on information integration and less in systems integration. The presentation will also explore the realization of such a shared data environment looking into requirements for data access and security.
	Standards will play a key role. And besides all short term business benefits we might get the young people back to engineering with collaboration solutions that at least are a bit like the way they engage with their friends.
	Nigel Shaw, Managing Director Eurostep
16.00-	PLM Around the World: Status & Trends
16.30	The Product Lifecycle Management (PLM) industry is quickly expanding and evolving to support industrial organizations of all shapes and sizes. For most discrete industrial organizations (e.g., automotive and aerospace), who operate in mature markets, the core capabilities of PLM have been well established for years. For nondiscrete industries (e.g., consumer packaged goods and food & beverage), who operate in mature markets, the adoption of PLM is highly varied. However, in emerging industrial markets, like Brazil, Russia, India and China, PLM adoption levels vary widely even in industrial sectors that embraced PLM some years ago.
	This presentation will describe the overall state of the global PLM industry, and the main global and regional trends in PLM technology and standards adoption.
	Topics will include discussion of the key drivers facing enterprises that are dealing with ever increasing complexities related to product, process, supply chain integration, regulations and other factors, and how PLCS and other PLM-related data standards are supporting the industry.
	Peter Bilello, President CIMdata
16.30-	Panel discussion with speakers day 1
17.00	Moderator John Dunford, Project Manager for the PLCS development "Phase 1"
19.00 -	Socializing - PDT Dinner

Agenda PDT Europe 2012   Day 2—September 26			
08.45- 09.00	Opening of Day 2		
09.00- 09.30	Data Challenges for Modeling and Simulation		
	The importance of Modeling and Simulation continues to grow as digital environments for product development, manufacturing, and training (virtual reality) become more capable. The challenges for sharing and exchanging data increase dramatically as complexity increases. Simulation must be integrated not only across domains like mechanical design, materials, electronics, and software and controls, but also across disciplines like structural strength and durability, thermal, aerodynamics and multi-body dynamics.		
	Statistical techniques for robust design and optimization contribute to an overwhelming deluge of simulation data. The requirements for Simulation data have far outstripped the available standards that deal with it.		
	Simulation frameworks deliver an environment that provides access to applications, processes, data, and resources. The capabilities of such systems, and the challenges for simulation data, will be discussed. Future collaborative environments, based on the paradigm of Model-Based Systems Engineering will provide additional challenges for integration and data sharing in the PLM ecosystem.		
	Dr. Keith Meintjes Practice Manager, Simulation and Analysis, CIMdata, Inc.		
	Keith Meintjes joined CIMdata with its acquisition of CPDA in May, 2011, where he was Research Director for CAE. At CIMdata, he is concerned with the effective integration of simulation and analysis (CAE) for product development and manufacturing.		
	Prior to joining CPDA, Keith was a General Motors' Senior Technical Fellow, with leadership responsibility for GM's global CAE strategy and for the business requirements for GM's global high-performance technical computing systems. He holds a Ph.D. from Princeton University in CFD methods for reacting flows and combustion.		
09.30-	Does LOTAR need PLCS?		
10.00	LOTAR is a standard for the long term retention of design models in the Aerospace and Defence industries. After their initial use to drive manufacturing, the models are stored ready for reuse in a repository, the principle use-cases being redesign and as records of design intent for certification and product liability. However, from the viewpoint of the repository, the models are the products, and "preservation planning" in the Open Archival Information System (OAIS) is the equivalent of product sustainment – and Product Life Cycle Support (PLCS) is the information model for the product sustainment phase.		
	The paper looks at two developments in approaches to Long Term Data Retention.		
	Firstly, service-bases repository models, which unbundle the concept of "archive" into several sets of services, thus creating the ability to build a "repository supply chain" combining suppliers of commodity services such as storage with specialist suppliers of value-adding services such as CAD translation. Secondly, within the repository information is stored as packages combining both the payload of model data with the meta data needed to access and manage it. Combining these two approaches leads to the conclusion that PLCS provides the history preserving structures needed to define package meta data, and to define the services need for maintaining the meta data over the life of the product models.		
	Sean Barker, Principal Scientist BAE SYSTEMS - Advanced Technology Centre		
	Sean Barker has worked for BAE Systems since 1990, initially in the development of CAD software, then subsequently in data exchange and data management. After a secondment to a joint venture with Dassault Aviation, he joined BAE Systems' Advanced Technology Centre in Filton in 2000, and since 2002 he has been involved in the development of the PLCS and LOTAR standards. He continues to work in information management, particularly on meta data and semantic web technologies.		
10.00- 10.30	Break		

	PLCS/AP233 Implementations	PLCS/AP233 Implementations	Secure PLM
	Commercial industry	Defence	Collaboration
10.30 - 11.00	Model driven business in a collabo- ration environment The Eureka project ITEA2/OPENPROD - "Whole Product Rapid Development and Lifecycle Support for Complex Products" - will be finalized during 2012. This presentation summarizes some of the results in the PLM area and a business case from power plants. Increasing the power plant operation flexibility is one of the main challenges for the future to meet new requirements from the electrical grid where the part of intermittent power production continuously grows (e.g. wind and solar power). Power plants from e.g. Siemens will be important applications to stabilize the future infrastructure. To meet the new requirements, enhanced simulation capabilities for power plants are needed. A data collaboration platforms for plant co-simulation and PLM data exchange will be a crucial components in the future business environment. The new infrastructure will improve capabilities to support power plant market with enhanced services. Sune Horkeby Siemens Industrial Turbomachinery	Defence The PLCS standard and its adoption at FMV Swedish Defence Material Administration (FMV) has been involved in the development of PLCS since early days, being one of the sponsors of PLCS, Inc. In 2005 a PLCS Policy was adopted at FMV. FMV is also one of the early adopters of PLCS with work done in DEX and Reference Data development. Recent RFPs to suppliers of vehicles and trucks have called out for information delivery according to PLCS. This presentation will outline the status of PLCS work at FMV, its international engagement and some of the ongoing work. It will explore ways that PLCS can beused internally in an organization like FMV and in the exchange and sharing of data with industry. Mats Elg and Mats Nilsson Logistics Support Swedish Defence Material Administration	Mastering Restricted Network Access in Aeronautic Collaborative Engineering across Organizational Boundaries Designing a modern aircraft, including all its systems and components, is an enormous collaborative engineering activity involving many teams of engineer across organizational and geographical boundaries.
11.00 - 11.30	-Developing an architecture and standard to support Innovations in	Maintenance and Repair DEX – Update and path secure	multi -partner and cross-enterprise collaborative multi- disciplinary environments in the aerospace industry. Adding security in a PLCS/AP233 COTS implementation to provide to
	collaborative modelling and simulation European aircraft, engine and equipment manufacturers and their suppliers are facing greater challenges than ever before and need to move beyond improving existing practices. This presentation will describe work	<b>collaboration</b> In a world of public-private partnerships, Performance Based Logistics agreements and coalition military operations, chances are small that military maintenance providers use the same maintenance management information system (MMIS).	Implementation A PLM system of today is in reality a federated system adding relationships between product data residing in many systems. PLCS certainly has its merits as a canonical PLM model for integrating systems internally in an organization But using PLCS as the language to connect to suppliers, partners and

	CRESCENDO project to develop a	Even if they did, competition and	customers adds to the complexity of
	robust Architecture to support the creation and management of a Behavioural	military sensitive data would limit most access. Free exchange of technical and business data related	implementation since security and IPR protection come into play.
	Digital Aircraft (BDA) dataset. This Architecture is an enabler for conducting collaborative modelling and simulation between the aircraft manufacturer and its supply chain	to a repair are critical to reducing cost and time to repair equipment. The Maintenance and Repair (M&R) PLCS DEX was developed to resolve this.	If security is not managed properly it might be a show stopper for collaboration, despite urgent needs to improve business in the supply chain.
	partners. The architecture provides a "common language" built on international standards PLCS AP239 and AP233. In order for the BDA Architecture to persist after the end of CRESCENDO, a BDA specific interpretation of ISO 10303-233/239 will be developed for the Business Object Model for use by both software providers and industrial partners. The presentation will describe the approach taken, provide an overview of results and give examples of implementations. Adrian Murton, Airbus Operation Ltd Nigel Shaw	This presentation will give insight of the scope as well as the status and plans of the M&R DEX, including its use in NATO Exercise CWIX 2012 and its path for implementation within the U.S. Department of Defense. <b>Bill Black, President of Black &amp; Rossi , Founder of Nexus LCM</b> <i>Bill Black has over 30 years of</i> <i>experience in the United States</i> <i>Marine Corps - including operations,</i> <i>maintenance, science and</i> <i>technology. He has pursued PLCS for</i> <i>use in through his participation in</i> <i>NATO AC/327 Working Group 5 (UID</i> <i>of</i> <i>Items) and the U.S. Marine Corps</i> <i>Sense and Respond Logistics projects</i>	In a successful PLM implementation today many industries need to comply with ITAR and Export Control. This presentation will outline work done with a COTS tool for collaboration, Share-A-space, and how the management of federated identities is implemented with the Microsoft Windows Identity Foundation. Magnus Färneland, Product Director Eurostep
	Eurostep	such as the NATO Coalition Warrior Interoperability Exercise (CWIX) series.	
11.30- 13.00		Lunch	
	PLCS Implementations Aerospace and defence	PLM big scope in an organization	Product data standards and the vision of interoperability
13.00- 13.30	Next Generation Simulation & Life Cycle Management Environment for Virtual Aircraft Collaborative Trade- Off Requirements for Aircraft trade-off include needs for traceable exchange	Analyzing coverage of Product Lifecycle Processes by a PLM System in an Organisation A review of PLM system and their implementations reveals that today only few processes of the product	Interoperability with STEP, PLCS and related standards. Engineering tools (and data model standards) need to interoperate across the product life cyclefrom





13.30-	Traceability of a process associated to monitoring of validation criteria is ensured, at the same time as partner's Intellectual Property is preserved. Olivier Tabaste Director Global Aerospace Business Development MSC Software Olivier has worked for the last 20 years with Simulation solutions from MSC. He has held various positions across the organization from customer presales, to project management for core software development and commercial engagements. The PHUSION harmonized PLM	Finally it elaborates on what additional value that OEMs and Suppliers would get by extending PLM implementation across Product Life Cycle. Sankaran Munuswamy Senior Consultant – PLM Tata Consultancy Services	This presentation will review the state of the art and standards roadmap at each life cycle activity, and explain what can be done to achieve the vision of an interoperable set of standards across the life cycle. <b>Charlie Stirk. President, CostVision</b> <b>Inc.</b> <i>Charlie is a member of PDES Inc., CAX</i> <i>-IF, MIL-STD-31000 TDP working</i> <i>group, INCOSE Tool Integration and</i> <i>Interoperability Working Group.</i> <b>Implementing STEP, PLCS and AP233</b>
14.00	global collaboration platform for EADS extended enterprise In the frame of the PLM Harmonization Center of EADS (PHC), the project "PHUSION" aims at developing an innovative PLM interconnection platform for the	Systems Engineering Perspective The presentation will highlight the business benefits that can be achieved implementing standards for Systems Engineering in industry, and in particular how different standards	<ul> <li>and ensuring business event content in systems engineering</li> <li>An event in business like; RFP, proposal, quotation, proposal, project, installation, commissioning, etc. is the business way to identify events going on</li> </ul>
	interconnection platform for the EADS Extended Enterprise. This platform is developed in synergy with the BoostAeroSpace platform in terms of interoperability standards, security and re-use of some components. It features real-time collaboration sessions as well as PLM oriented data exchange capabilities promoting the	from industry on how standards for Systems engineering are implemented, and discuss:	events going on. Objects of the events are defined activity types and thus refinement activities (tasks) that are the objects in time scheduling, resourcing, requisition, product lifecycle management, etc. This corresponds to execution of commitments. These master objects are carriers for any integration definitions, and thus give
	use of standards like STEP. PHUSION is due for starting first pilot at Astrium in 2012. The presentation is expected to be the opportunity to deliver a first practical use feedback. Dr. Amaury Soubeyran, EADS, Chairman of the PHUSION project	product data?	the base for definitions by use of standards. Standards are used commonly to shorten the work to define collaboration content and thus system engineering content.
	Amaury has worked in major programs in Matra Marconi Space, Matra Systems & Information and EADS IW. He is now at the Corporate Technical Office at EADS Head Quarter in Paris today working with PHUSION.	<ul> <li>How can a framework for identifying and quantifying the benefits be achieved?</li> <li>Victoria Rogstrand PhD Syntell</li> </ul>	Business events and a WBS in form of activities is the master structures by which respective standards are implemented for a certain purpose. Specifications used are STEP, ISO81346 (Plant designation) and more for collaboration exchange, for customs clearing, for import
	<b>Tobias Hesse, AIRBUS-CIMPA,</b> <b>CoChairman of the PHUSION project</b> <i>Since five years Tobias Hesse is</i> <i>working for EADS. He joined Airbus</i> <i>CIMPA in 2009 as part of the PHENIX</i> <i>program. Before joining Airbus</i> <i>CIMPA Tobias Hesse worked for EADS</i> <i>Astrium Space Transportation.</i>	Victoria Rogstrand works as a senior consultant within the fields of information management. Victoria Rogstrand has 10+ years of experience in international standards for product data exchange and is an active member in STEP development	declarations, whatever is relevant. An integration definition for a collaboration environment is very much required and will be presented. Göte Carlsson, Development manager PDM Wärtsilä Oy, Power Plants

14.00-			
	Round table discussions including coffee		
15.00 14.10- 14.30	Modeling and simulation How to move forward based on the experience from CRESCENDO and Openprod? Can the result go into production? Additional research needed.	We all ask for collaboration capabilities. What is the role of standards? Who are the stake holders that can decide? How to get them on board? How do we sell our story to top management and projects?	Technology – how to get the most out of PLCSlib and SysML? Building from the workshop pre PDT Europe experience should be shared and discussed.
14.30- 14.50	PLCS for Product Support and Aftermarket PLCS has one of its strengths in later product life cycle phases and feedback. What is the experience we can share and use?	Security and PLM collaboration PLM in real life is federation of data. Crossing company borders means also federation of IDs. What is state of the art and can we use "the Cloud"?	Systems engineering SE is one of the key topics discussed nowadays also at PLM events. Do we agree on the relation PLM and SE and what can be done to build mutual understanding and an integrated approach?
15.00- 15.30	Reporting from Round Table sessions and discussion Ideas for PDT 2013		
15.30- 15.45	Summary – closing the conference	e	







## Who will attend PDT Europe 2012?

PDT Europe brings focus on user needs. Participants are typically managers and decision makers, program- and project managers, architects, technical leaders and technical specialists from different industries who meet up and exchange ideas.

We expected to attract 150 delegates from major engineering business sectors of Aerospace, Automotive, Building and Construction, Defence, HighTech, Telecom, Ship Building, Power Generation, Pharmaceutical, Process & Plant and Manufacturing as well as from Research and Academia!

### **Conference Fees**

Business delegate	995 EUR
Early Bird registration (last day Aug 24)	795 EUR
Academic delegate	295 EUR
PDT dinner, evening Sept 25	50 EUR
To register—www.pdteurope.com	

## Social Events – Welcome Reception and PDT dinner

The PDT Europe social events are intended for all to meet informally for networking and new contacts. All delegates, speakers, partners and guests are welcome

## Venue, Location and Hotel

The PDT conference will take place in: The Hague, The Netherlands September 25-26 2012

Conference venue is Hilton Hotel in The Hague.

Hotel rooms are pre-booked with a special conference price at your convenience at the Hilton Hotel in The Hague.



#### If you have any questions about PDT Europe, please contact:

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The organizer reserves the right to make changes to the program.