

CAUG/WUG Regional Conference 2009 Abstracts

Teamcenter Track – Ballroom 1

- **SAP/ERP Integration** **10:15am – 11:00am**
Mathias Mond – TESIS PLMware USA LLC

Anybody working in NX and/or Teamcenter is increasingly challenged to share data with other business functions, or use data from other people, within their company. In many cases this means sharing data describing a product in both technical and commercial terms between design engineering, production planning, logistics, procurement, etc. This presentation will reflect on how data sharing can work between Teamcenter and other systems, and on what it takes to make integration successful. Also, a few examples are shown highlighting how manufacturing companies have set up their processes to facilitate data sharing with minimum burden on the user.

Please note that this presentation does NOT talk about the various aspects of sharing native CAD data.

- **Teamcenter 8 Demonstration** **11:05am – 11:50am**
- Siemens PLM Software

- **Controlling Access with Workflow** **12:30pm – 1:15pm**
Nat Horswill – Ladish Forging

A case study of using workflows and access manager to control the design and release process in a manufacturing job shop environment. I will show the high level flow of our design process in NX and Teamcenter Engineering and how it is controlled by using workflows. By using a combination of workflows, we have set up an environment where designs are checked, approved, and released to the shop floor without having to worry whether the design changes after the documents are printed in the shop. We will also discuss future improvements we are planning to make the workflows more efficient and better controlled.

- **Mercury Experience Using Teamcenter** **1:20pm – 2:05pm**
Fred Bellio – Mercury Marine

The presentation will provide an overview to Mercury Marine's approach and strategy for implementing PLM. It will talk about the Company's vision, approach and strategy for PLM. It will describe the breadth and depth to which PLM is key to creating and integrated product development environment for the organization. It will also talk about PLM's integration with ERP and highlight thinking around a single bill of material and change process for the company and the company's lesson learned while implementing.

Teamcenter Track – Ballroom 1

- **Teamcenter for Simulation** **2:10pm – 2:55pm**
Marc Lafontaine – Maya
Nicolas Parise - Maya

This presentation provides an overview of how Teamcenter can be used to manage simulation. Attendees will find out how Teamcenter 8 architecture enables efficient management of CAD/CAE relationship, simulation workflows, abstraction automation and third party solver integration through lifecycle validation management.

- **The intelligent link between electrical and mechanical CAD** **3:10pm – 3:55pm**
Mike Petersen – Zuken

Traditionally the interaction between the electrical and mechanical environments was tenuous at best, with information being shared manually resulting in unnecessary work and potential errors. With the adoption of 3D mechanical design tools, integrating the electrical components such as routed wire and cables into the 3D model at the start of the design ensures a more effective process and addresses time-to-market issues.

This session will review the complete electrical and mechanical design process, the steps involved in both sides of the design, and the benefits derived from using the latest design software.

- **Creating PDF Files Using OOTB Tools** **4:00pm – 4:45pm**
Larry Carpenter – Siemens Healthcare

Are you tired of doing the “monkey work” of manually creating alternative file formats from your I-deas and NX drawings stored in Teamcenter? Would you like a way to offload this repetitive task to Teamcenter without having to become an expert at customization? Learn how to get Teamcenter to work for you! Use the OOTB Teamcenter tools Translation Management, Workflow, and Visualization Convert together to get your desired resultant file format without customization. The target audience for this presentation is the lowly CAD Admin who is tasked with implementing this kind of functionality in TC2007 UA without the help of experts.

NX CAD Track – Ballroom 2

- **NX7 Tips and Tricks** **10:15am – 11:00am**
John Baker – Siemens PLM Software

- **Design Re-Use Best Practices** **11:05am – 11:50am**
Troy Vanderhoof – Siemens PLM Software
Scott Felber – Siemens PLM Software
Steven Champagne – Ladish Forging

According to a recent Aberdeen Group survey, 46 percent of companies are pursuing the ability to act better to create, capture and re-use product knowledge as a way to increase product revenue while controlling costs

This session will discuss and demonstrate how to address the following reuse challenges:

Ability to find existing data
Ability to make ad hoc changes to existing data
Ability to develop and design reusable parts and templates
Ability to adapt geometry for efficient and seamless use by downstream processes

See Demonstration from Steven Champagne from Ladish Forging on how they have saved time and eliminated unwanted errors by using the Reuse Library. This demonstration will also show how to eliminate repeated steps in assembling fasteners.

- **John Clauson** **12:30pm – 1:15pm**
John Clauson – Indak Manufacturing Corp.

The old Mating Conditions used for many years in NX assemblies are going away during the NX7 release cycle. This presentations covers the basics of the newer Assembly Constraints. As well as exploring how to use them, you'll see the differences between the two methods and how to covert from the older to the newer. Time permitting, some assembly strategies and best practices will be shared.

- **Customizing NX on Windows** **1:20pm – 2:05pm**
Rob Cohon – Siemens PLM Software

NX system administrators have a unique challenge in deploying company standards and best practices for CAD/CAM/CAE throughout their enterprise. If you are looking for an easy way to centralize these tasks, including NX related environment variables, customer defaults, individual user settings, custom templates, tool bars, tables and libraries, come to this session.

NX CAD Track – Ballroom 2

- **Rapid Modification to Non-Parametric Models** 2:10pm – 2:55pm
Terry McCallum – SurfaceInk

A solid body is nothing more than a collection of sheet bodies that intersect each other to form a watertight object. Does it matter in which order they were created, whether they were created from a sketch or an extrusion, if they are related to a specific plane, or dimensioned from another feature? Ultimately, does the end customer need a well engineered fully parametric model, and do you? What value does a well engineered parametric model add to your organization? What value does a poorly engineered parametric model add to your organization? How is it limiting you? This session will validate your parameter use, but also open your eyes to the true power of NX's ability to rapidly modify non-parametric models.

- **Using the Visual Editor & Part Modeling with Expressions/Spreadsheets** 3:10pm – 3:55pm
Tony Metz – Fermilab
Don Mitchell – Fermilab

The power of parametric based systems is the ability to quickly manipulate expressions or formulas within your CAD model, causing an update without using traditional CAD tools. The Visual editor is a tool that allows you to selectively work with expressions within a CAD model. This presentation will go through a step by step methodology on using the visual editor and will evaluate several examples. Benefits of using the visual editor permit standardization of expressions within an organization, the ability to manage expressions in an orderly manner and allow for casual CAD users to create or modify parts without a full understanding of NX.

A presentation of a parametric bellows, it illustrates the use of expressions, the visual editor, and the spreadsheet functionality (3 ways to modify your part). It will also show "suppression by expression". The purpose will be to show the users how to take advantage of part programming for common parts so that you never have to model common parts more than once.

- **Lights , Camera, Action** 4:00pm – 4:45pm
Don Mitchell – Fermilab

The fundamentals of rendering in NX will be covered to include: Applying material/ colors/ textures to your parts; creating lighting: adding a camera to the scene, and adding a few cool visual effects. After a PowerPoint presentation entitled "Lights, Camera, Action!" a live demonstration will be provided. Don's recent NX rendering of superconducting RF cavity was showcased in the 2009 Siemen's calendar for the month of January.

NX CAM Track – Ballroom 3

- **What's new in NX7 and NX 7.5 CAM** 10:15am – 11:00am
Mark Rief – Siemens PLM Software
- **What's new in NX7 and NX 7.5 CAM (cont'd)** 11:05am – 11:50am
Mark Reif – Siemens PLM Software
- **NX Progressive Die Wizard** 12:30pm – 1:15pm
Joe Manschula – Wiegel Tool Works
Andy Niewia – Wiegel Tool Works

Presentation on how Wiegel utilize NX with Progressive Die Wizard (PDW). They will start with a Power point presentation that will highlight their experience in their trade and also a short explanation of metal stamping for those who do not know the industry. Then they will do a cad presentation on PDW. May also bring sample product so attendee's can see the Cad version and then the final product.

- **Feature Based Machining** 1:20pm – 2:05pm
Michael Fisher – Swoosh Technologies

NX Feature based machining
- **MFG – Understanding Non-Cutting Moves in NX6** 2:10pm – 2:55pm
Craig Klug – Carlson Tool and MFG.

Learning how non-cutting moves work in NX6 and what to expect when making a change to it. We will discuss engage, retract and transfer/rapid moves. Presentation will include some examples of 5 axis tool paths and 2D/3D paths.

Tecnomatix Track – Ballroom 3

- **Assembly Management** 3:10pm – 3:55pm
Andy Perez – Siemens PLM Software
Brian Shay – Siemens PLM Software
- **Assembly Management (Cont'd)** 4:00pm – 4:45pm
Andy Perez – Siemens PLM Software
Brian Shay – Siemens PLM Software

NX CAE/Simulation Track - Southport

- **CAE Driven-Design** **10:15am – 11:00am**
May Taylor – Siemens PLM Software

Best-in-class companies validate design changes immediately with CAD-embedded CAE.

Is CAE often a bottleneck in your organization?

Would you like to enable your designers to compare design alternatives?

With today's powerful NX modeling software coupled with integrated CAE capabilities, your company can now take advantage of a "CAE-driven design strategy".

This session will show:

- How to rapidly build CAE Models
- How to use CAE Results to evaluate design alternatives
- How to automatically propagate changes from CAD into the CAE model

- **NX CAE** **11:05am – 11:50am**
Marc Lafontaine – Maya
Nicolas Parise - Maya

This presentation will cover NX simulation pre/post and solvers capabilities. Attendees will learn how Synchronous Technology can be used by non CAD users to abstract and complete models for state of the art FEA analysis within a collaborative product development environment. Participants will have an update on NX structural, flow, thermal, space thermal and electronic analysis capabilities.

Solid Edge Track – Southport

- **What's New in Solid Edge ST2** **12:30pm – 1:15pm**
Scott Christensen– NetPLM

This session will introduce the new or updated features and functionality in the latest release – Solid Edge ST2. Some of the features and functions included in this session are the enhancements of Synchronous Technology, improved functionality in the area of transition from 2D to 3D, the new advanced Synchronous Sheet Metal, Scalable design and failure analysis integrated in Solid Edge (Simulation), and many more new or improved features and functions.

- **What's New in Solid Edge ST2 (continued)** **1:20pm – 2:05pm**
Justin Bush– NetPLM

This is a continuation session that will complete the introduction of the new or updated features and functionality in the latest release – Solid Edge ST2.

- **From 2D to Finished Part – A NetPLM Customer Solution** **2:10pm – 2:55pm**
Justin Bush– NetPLM

This session highlights how a manufacturing company re-imagined its engineering and manufacturing process. Their current (As is) process is: 2D CAD profile => detailed 2D prints => MDI into CNC controls for lathes. Their re-imagined (To Be) process is: 3D CAD Model=> 3 axis CAM => Posted to CNC controls for lathes. See how the combined associative use of Velocity products will take at least a week out of their engineering manufacturing time for the first iteration and even more time with each successive design iteration: not to mention scrap reduction and a higher quality finished product.

- **Interoperability of Solid Edge using Synchronous Technology** **3:10pm – 3:55pm**
John Graham – Design Fusion

Presenter will highlight Synchronous Technology as well as focus on 2D-3D workflows in solid edge. Presenter will also present on how to build intelligence into an imported assembly, using relationship assistant.

- **Design Automation with Solid Edge with Synchronous Technology** **4:00pm – 4:45pm**
John Graham – Design Fusion

One of the key benefits of history based modeling is its ability to automate design changes by programming design intent into the model. However, this is often time consuming and challenging. See how design automation is easily accomplished in a non-history based environment using Synchronous Technology.