

ConX19

Institute for Process Excellence 32nd Annual Event

Charting Your Course to True North *Achieving Sustainable Enterprise Transformation*

PARK HYATT AVIARA RESORT, GOLF CLUB & SPA
SAN DIEGO, CA | AUGUST 26 – 28, 2019
TRAINING TO FOLLOW AUGUST 28 - 30

www.lpXhq.com

ConX19



The Park Hyatt Aviara Resort, Golf Club, + Spa

7100 Aviara Resort Drive, Carlsbad, California 92011 United States

Perched on a high ridge overlooking lush rolling hills and the shimmering Pacific beyond, Park Hyatt Aviara Resort, Golf Club & Spa is a Forbes Five-Star and AAA Five-Diamond luxury destination located in the seaside community of Carlsbad, close to San Diego's vibrant attractions while offering a personalized and relaxed escape. Park Hyatt Aviara is within a short drive of many fun things to do, like SeaWorld, San Diego Zoo, Legoland, Balboa Park and of course Carlsbad beaches. Visit their [website](#) for details.

ConX19 attendees receive the following offers from the resort:

10% discount on Spa services

10% discount on golf fees for individual or tournament play

Parking + Transportation

Overnight parking for ConX19 guests is \$15/night. Enjoy valet parking at the resort along with six vehicle charging stations. Self-parking is not accessible. The Resort provides complimentary shuttle service to the property's tennis courts and golf course. Transportation services are available on site from [La Costa Limousine](#). Car rentals are available at the resort from Enterprise and can be arranged through the Concierge. Visit the hotel's [transportation page](#) for more details.

Registration

Visit the registration booth in the Grand Promenade when you arrive to pick up your badge and ConX19 gifts.

Sunday 9:00 am - 6:00 pm

Monday 7:30 am - 8:15 am

Tuesday 7:30 am - 8:30 am

Sunday, August 25

9:00 AM – 6:00 PM

Registration, Grand Foyer

6:00 PM – 8:00 PM

Opening Reception Sponsored by Configit, Palm Courtyard

Monday, August 26

7:15 AM – 8:10 AM

Registration & Breakfast, Grand Foyer

8:15 AM – 9:00 AM

IpX, Opening Remarks

9:00 AM – 9:45 AM

Opening Keynote, Cassandra Worthy, Change Enthusiast™

9:45 AM – 10:20 AM

John Laslavic, CEO/Founder Upchain

10:20 AM – 10:45 AM

Networking Break, Grand Foyer

10:50 AM – 11:25 AM

Erika Klein, Director HW Engineering, and Pekka Ruotsalainen, Senior Program Manager, Microsoft

11:25 AM – 12:00 PM

Martijn Dullaart, CM Expert/Architect, and Martin Haket, CM Business Architect, ASML

12:00 PM – 1:00 PM

Lunch, Palm Courtyard

Breakout Sessions	General Session	Avocet	Blue Heron	Goldfinch
1:05 PM – 1:40 PM	James White, VP Partner Enablement, Enterprise, Upchain	Craig Brown and Alison Sickelka, Product Manager, Vertex	Chrissy Sigrist, Manager, Product CM, & Eric Pettes, Director of Quality Assurance & Regulatory Affairs, Bose	Rachel Holyoak, Northrop Grumman
1:45 PM – 2:30 PM	Martijn Dullaart, Configuration Management Expert/Architect, ASML	Semiha Yaşar, Founder, SEMPRO	Nuray Cömert, Chief of Configuration and Product Management Division, and Murat Kavuşan, PLM Expert, Roketsan	Crystal Reed, NAVWAR HQ, US Navy
2:30 PM – 3:00 PM	Networking Break, Grand Foyer			
3:05 PM – 3:25 PM	Fast Round Featuring 2019 Partners (Upchain, Vertex, Aras)			
3:30 PM – 4:15 PM	"The Future of the Enterprise Ecosystem" Panel Moderated by Allison Grealis, President/Founder, Women in Manufacturing Semiha Yasar, Founder, SEMPRO Consultancy and Engineering Cassandra Worthy, Change Enthusiast™, CassandraWorthy.com Susanne Lauda, Director, Global Advanced Manufacturing Technology, AGCO Erika Klein, Director HW Engineering, Microsoft Leigh Ringgold, Infrastructure Sourcing Operations Engineer, PLM, Facebook Jeanne Rues, Managing Director, Engineering Services, Allison Transmission Claudia Gonzalez, Product Data Management, Google Cloud, GCD, Google			
4:20 PM – 4:55 PM	Peter Schroer, CEO/Founder, Aras			
5:00 PM – 6:00 PM	Partner Happy Hour Sponsored by Upchain, Grand Foyer			
6:00 PM – 9:00 PM	Dinner Reception, Palm Courtyard			

Tuesday, August 27

7:30 AM – 8:30 AM	Registration & Breakfast, Grand Foyer
8:30 AM – 9:05 AM	Joe Barkai, Consultant, Speaker, Author & Blogger, JoeBarkai.com
9:05 AM – 9:40 AM	Dr. Nathan Hartman, Ed. D., Department Head, Computer Graphics Technology, Purdue
9:40 AM – 10:00 AM	Networking Break, Grand Foyer
10:00 AM – 10:35 AM	Ken Scherwinski, Senior VP of Engineering Services, Saratech
10:35 AM – 11:10 AM	Scott Perdue, EVP of Operations and Strategic Business, Configit
11:10 AM – 11:55 AM	"The Future of Digital Solutions and Enterprise Platforms" Panel Moderated by Joseph Anderson John Laslavic, CEO/Founder Upchain Susan Rockafellow, Project Manager, CM2-P, Javelin Technologies, Inc. Rob McAveney, CTO, Aras Ken Scherwinski, Senior VP of Engineering Services, Saratech Paul Powers, Co-Founder/CEO, Physna Scott Perdue, EVP of Operations and Strategic Business, Configit
11:55 AM – 12:30 PM	Paul Powers, Co-Founder/CEO, Physna
12:30 PM – 1:35 PM	Lunch, Palm Courtyard

Breakout Sessions	General Session		Avocet	Blue Heron		Goldfinch	
1:40 PM – 2:15 PM	Noe Gonzales and Alakshendra Khare, PLM Operations, Facebook		Dave Ewing, Technical Account Manager, Aras	Mari Wozny, Manager, Configuration Management, and Justin Belmont, Product Structure Engineering Supervisor, Emerson		Cenk Onen, Engineering Director, Roketsan	
	General Session	Avocet	Blue Heron		Goldfinch		Osprey
2:20 PM – 3:05 PM	Martijn Dullaart, Configuration Management Expert/Architect, ASML	Ian Barnett – Upchain	Configit		Mike McKinney, Corporate CM2 System Leader, Sub-Zero Group, Inc.		Lev Horodyskyj, Arizona State University
3:05 PM – 3:25 PM	Networking Break, Grand Foyer						
3:25 PM – 3:50 PM	Fast Round Featuring 2019 Partners (Configit, Saratech, Physna, XPLM, Minerva)						
3:50 PM – 4:25 PM	Susanne Lauda, Director, Global Advanced Manufacturing Technology, AGCO						
4:25 PM – 5:00 PM	Allison Grealis, President/Founder, Women in Manufacturing						
6:00 PM – 11:00 PM	After Dinner Fun Night in the Game Room (Snacks from 8:00 – 10:30)						

Wednesday, August 28

7:30 AM – 8:30 AM	Registration & Breakfast, Grand Foyer
8:30 AM – 9:05 AM	Peter Bilello, President & CEO, CIMdata
9:05 AM – 9:40 AM	Christine Reilly, Business Development Director, Healthcare, ASME
9:40 AM – 10:05 AM	Fast Round Featuring 2019 Partners (DES, CMPRO, Adelante)
10:05 AM – 10:25 AM	Networking Break, Grand Foyer
10:25 AM – 11:00 AM	Oleg Shilovitsky, CEO/Co-founder OpenBOM™, Blogger & Advisor at Beyond PLM
11:00 AM – 11:35 AM	Craig Brown, Executive Consultant
11:35 AM – 12:00 PM	IpX, Closing Remarks

Training Courses

Each course registration includes attendance to the event Monday and Tuesday. All Courses begin Wednesday at 1:00PM.

Courses Thursday and Friday will take place from 8:00AM – 5:00PM.

Students will break at 12:00 for lunch and 2:30 for afternoon refreshment

Course CM2-09

Practical Application Workshops for Enterprise Excellence

Avocet

This hands-on course focuses on shifting the paradigms that are most important and also the most challenging to those implementing CM2. Course participants will perform a variety of roles and, by the end of the third day, they will have performed all facets of the CM2 process.

As Upper management, they will review an enterprise baseline and validate its content, format, naming and numbering conventions. As core business process owners, they will create enterprise operating standards and procedures and populate the enterprise baseline. As Cross-functional development team members, they will develop a product, create its design basis and hierarchy and populate its baseline.

As CRB members, they will make changes to the enterprise baseline and the product baselines. In support of supply chain specialists, they will ensure that change effectivities remain synchronized with build schedules. As Process specialists, they will transform complex work flows into closed-loop phases with each managed by a process specialist. As Part of 3-member creator/user teams, they will manage and execute individual administrative work flows and product work flows.

Course CM2-13

Optimizing the Software Lifecycle with CM2

Blue Heron

This course describes how the CM2 model for configuration management (CM) can be applied to software. The challenge boils down to what an organization believes. Organizations either expect software code to come out right the first time, or they do not. Its process will be designed accordingly.

The CM2 model is designed to ensure that code comes out right the first time. This does not mean software development is not an iterative process. It is where the iterations take place that is most important. With CM2, the customer and the developer gain a good grasp of what the overall product is going to be at an early point in its lifecycle.

With CM2, the development effort is led by a cross-functional team whose members have the full range of needed expertise. The same members serve as the Change Review Board (CRB). Change decisions are made quickly and, if approved, implemented promptly. CM2 for software is a scaled agile iterative methodology that ensures that software design definition is clear, concise, valid. Source code is not written until the design to be achieved has been documented, validated and released by its co-owners.

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Course CM2-15

Operational Excellence Bootcamp

Aviara Salon A

Students are elated when an executive joins them in the courses required for certification but time constraints are a major obstacle. The latest update of this course included a major revision to the format which enables its length to be reduced to 2 days.

The format was previously the same as used in the courses required for certification. This revised format is better suited for an executive audience. About half of the 166 pages are full-page graphics taken from the most powerful illustrations from all course materials. Each illustration is backed up by a page of key points.

This course is for executives and upper-level managers. It provides an in-depth review of the IPE/CM2 model for process improvement and enables each attendee to gain a better understanding of the strengths and weaknesses of their own processes.

After discussing the pro's and con's of each key point with the other attendees, those who complete this course will know precisely what they need to do.

SAE EIA-649

Application of the Standard for Configuration Management

Goldfinch

The SAE EIA-649, Standard for Configuration Management, and the companion, SAE GEIA 649A Handbook, are Configuration Management (CM) standards used by both governmental and private enterprises worldwide. These standards provide the foundation of CM principles and graphic guidance used in regulated acquisition and enterprise environments.

This condensed 2.5 day version of our standard 4-day course provides hands-on discussion and workshops related to EIA-649 principles while providing real world techniques for regulated environments. The course will teach practical application methods used for placing Configuration Management Requirements on Defense Contracts.

CIMdata PLM Certificate Program Registration

Osprey

For over 35 years, CIMdata has been working in the Product Lifecycle Management (PLM) industry. Our consulting services and research expertise are known around the world for their best-practice-based content. CIMdata has leveraged its first-hand, working knowledge and experience to create the CIMdata PLM Certificate Program—the PLM industry's most comprehensive non-biased education and training offering for today's PLM professionals.

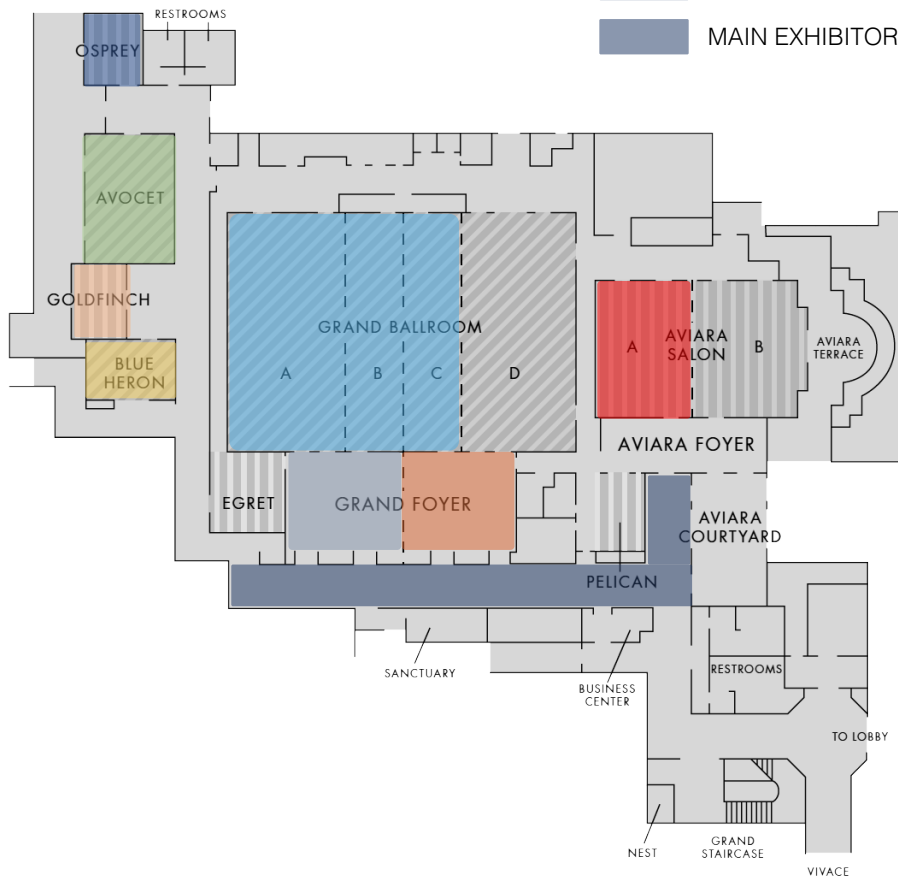
CIMdata's PLM Certificate Programs are assessment-based and are delivered through a series of education and training sessions that have been designed to ensure that those involved in a PLM project have a strong understanding of PLM concepts and industry best-practices.



ConX19

GENERAL SESSION & EXHIBITION

- GENERAL SESSION
- DIAMOND PARTNER EXHIBITION
- PLATINUM PARTNERS EXHIBITION
- MAIN EXHIBITOR HALL



BREAKOUT SESSIONS & CM2 COURSES

- AVIARA SALON A
- AVOCET
- BLUE HERON
- GOLDFINCH
- OSPREY

Speaker Abstracts

Monday, August 26, 2019

Cassandra Worthy, cassandraworthy.com

9:00 – 9:45 am

Mastering The Chemistry of Change: Empowerment to Release Your Inner Rock Star

Rapid change is impacting nearly every industry vertical, re-shaping, re-forming, and ultimately disrupting 'business as usual'. Institutions like IpX are front and center, leading change integration and subsequently promoting greater efficiency for their client base. But with every change introduction comes strain, stress, and frustration across all levels of the workforce. The change management tools and know-how MUST be coupled with intentionality and strategy against harnessing the emotional landscape of major shift. In her highest demanded keynote, Cassandra Worthy, chemical engineer and world-leading expert on Change Enthusiasm®, shares her experiences as a Fortune 500 manager in the Consumer Packaged Goods industry struggling in the face of major shifts. Thriving through the struggle, she created the strategy of Change Enthusiasm®, that now enables her audience's unique signature of resilience, adaptability and perseverance. The message within this keynote inspires what we know rests within: the ability to deliver rock-star business results and champion change.

Leaders within the Change Management space will leave buzzing with:

- Tried and true strategies to thrive in the face of stressful and frustrating change
- Inspired perspective that managing and championing significant shift is entirely possible and even enjoyable
- The energy and motivation to take the next step towards adopting their current change challenge

Ian Barnett, Upchain

9:45 – 10:20 am

Enterprise PLM: One Workgroup at a Time

PLM is used to harmonize disparate work silos by forcing end-to-end corporate governance standards across the discrete workgroups, usually at the expense of how product stakeholders work today. PLM ensures that all stakeholders are doing their work in a consistent, predictable, repeatable way which is a good thing right? Well, yes and no. Engineers are creative, creativity requires adhoc, spontaneous actions like peer-to-peer collaboration (email, phone, DropBox, hallway chat) and emailing documents authored outside PLM from within MS (Microsoft) Office. Upchain PLM has been engineered to address and support the way engineers and all product stakeholders work today, while also bringing end-to-end corporate governance standards. Upchain uses an "enablement" paradigm rather than the traditional PLM implementation project approach. Using a long-term technology-independent road map, and an outcome-centric methodology, Upchain is able to achieve rapid enablement, or quick wins, to achieve ROI with low risk so that PLM becomes the environment for collaboration, like oxygen in the air we breathe. We are not motivated to breathe; its automatic, we just do it. PLM must become the structure that creates the connections for us to collaborate, thus enabling the journey from imagination to change. This approach improves both personal productivity for individuals, and enterprise governance, one workgroup at a time.

Erika Klein and Pekka Ruotsalainen, Microsoft

10:50 – 11:25 am

Transforming the Organization - The Microsoft PLM Journey

With increasing customer demands for new products and services, Microsoft needed to scale across its processes and tools to support these growing businesses – devices and cloud. Making small changes was not an option and it required big and impactful transformations across people, processes, and tools and it was needed yesterday --- transplanting the heart of the product development engine (PLM) while running a marathon. This session provides a look back on what Microsoft learned and future plans to drive optimal organizational change.

Martijn Dullaart and Martin Haket, ASML

11:25 am – 12:00 pm

Ignorance is Bliss!

Have you ever had to work overtime or on weekends because somebody else missed the certain impact of a change? Why is impact analysis so hard to do right the first time? Martin and Martijn will talk about how the complexity of products, the size of companies and the lack of proper tools to support people during impact analysis, lead to blind spots in impact analysis.

These missed impacts force others into corrective action mode.

Speaker Abstracts

Breakout Sessions

1:05 – 1:40 pm

James White, Upchain

Spreadsheets Are the World's Most Widely Used PLM Tool, and Why That's about to Change

There are many examples of how technology disrupted traditional markets e.g. Uber, Amazon, Airbnb and Apple's iPhone. CAD and PLM haven't fundamentally changed much in decades except perhaps for the underlying hardware running it. Remember when the only way to run CAD was an expensive technical workstation running HP/UX or DEC VMS operating systems? And PLM was installed on top of Oracle which ran on a mainframe? Sure, PLM vendors have gobbled up best-in-class solutions into their portfolio which expands their footprint, but what has really changed in core PLM capability? PLM today, dominated by a handful of traditional CAD-centric vendors, has changed little in decades despite those vendor's claims. Also, and often deliberately overlooked, is the fact that most engineering product information is still captured in a mix of documents like MS (Microsoft) Excel and Word, stored in Adobe PDF format, and managed by collaborating humans using email, phone calls and face to face meetings. Upchain is taking a fresh new approach to PLM. Unencumbered by a legacy of CAD, obsolete OS's, and empathizing with individual stakeholder's needs, Upchain boosts personal productivity by supporting users' natural MS tools environment, yet augmenting it to enable enterprise PLM governance. A dichotomy? How can any solution combine ad-hoc behavior of individuals yet also enforce corporate governance? In this session, we will showcase a new outcome-centric PLM paradigm inspired by individual stakeholder' needs, and engineered to enforce corporate governance standards to improve how work gets done.

Craig Brown, John Heller, and
Alison Sickelka, Vertex*How to Overcome the Biggest Collaboration Challenges*

Did you know that 10 hours of a design engineer's week is spent on the admin work to prepare and share 3D models with internal colleagues and across the supply chain? That's because today's manufacturers need to collaborate with internal teams and external suppliers to quickly meet market demands and customer needs. But today's technology doesn't allow those who are vital to product development to access expensive, complex systems, forcing design engineers to waste time preparing and sharing massive 3D models with internal colleagues and with suppliers. This is just one of the major challenges in 3D collaboration.

Vertex invites Craig Brown, the former GM PLM Lead, to join our interactive breakout session about how to streamline and improve collaboration. This session provides an overview of the industry's collaboration expectations, the shortcoming of current solutions, and how the Vertex platform offers an opportunity to break through collaboration barriers.

Chrissy Sigrist and Eric
Pettes, Bose*Our Journey to Bose Health*

Have you ever had to "do the impossible"? Learn how Bose, a company whose founder believed in the impossible ventured out of its comfort zone into unfamiliar ground and accomplished the impossible, launching a new product for a regulated industry not previously experienced. This breakout session is intended to be a collaborative sharing and learning experience.

Rachel Holyoak, Northrop
Grumman*Why Controlling the Digital Twin Matters – A Virtual Reality Dream or Nightmare*

Are you wondering if controlling the digital twin matters? Ever wonder where and how to start CM of the digital twin? This session will discuss Northrop Grumman's journey to find the right balance in controlling the digital twin, including what advantages, disadvantages, traps, and successes have occurred along the way. Adequately controlling the digital twin can make today's up and coming technology, including use of engineering virtual reality a dream or a nightmare. Come see the possibilities.

Speaker Abstracts

Breakout Sessions

1:45 - 2:30 pm

Martijn Dullaart, ASML	<p><i>CM Game</i></p> <p>This is an interactive workshop that creates awareness on 3 key principles of configuration management:</p> <ul style="list-style-type: none"> • Effective dates determine when documents and parts can be used • Documents lead, parts follow • Planning is the only way to control part usage in operations
Semiha Yaşar, Sempro	<p><i>How CM2 has effected Turkish Defense Industry for Process Excellence</i></p> <p>Rapidly evolving technology and constant innovations in products and services make digitalization inevitable for companies. On the other hand, in today's digital world where innovation is a top priority for most companies, the number of products and product, variants are rising; hence the product complexity is increasing. This product complexity naturally brings in its wake difficulties of data management. Managing this complexity is only possible with digitalization.</p> <p>As in the rest of the world, Turkish companies are in the digitalization process to manage their product and data complexity. Digital investments have already been made in many fields about digitalization. This digitalization initiative in companies requires reviewing and improving all related processes to achieve process excellence. The success of companies in process excellence is supported through CM2 processes enabled by software solutions.</p>
Nuray Cömert and Murat Kavuşan, Roketsan	<p><i>Transformation Roadmap to Closed-Loop Change Process in Roketsan</i></p> <p>Closed-Loop Change Process is the backbone of a company for achieving integrated process excellence. Roketsan as a leading defense company in Turkey is planning to implement a Closed-Loop Change Process as a critical milestone in order to leverage the business processes in the very near future. The presentation will focus on the challenges and motivations of transforming to a new change process and also solutions including change workflow, roles, fast/full track decision criteria. It will also cover the current CM and PLM environment in the company and the implementation plan of the change process.</p>
Crystal Reed, NAVWAR HQ, US Navy	<p><i>Configuration Management Professional Development</i></p> <p>We need CM professionals every day, but how do you know if you are qualified for the position OR if you are even interested in the position without knowing the level of expertise? How do hiring managers know if the CM professional being interviewed has the right knowledge, skills, abilities, training, education and proficiencies to be successful? The development model will help employees recognize their full potential to ensure they are capable of supporting organizational CM requirements as well as provide hiring managers the skill level required when selecting individuals for a new CM position or promotion.</p>

Speaker Abstracts

Peter Schroer, Aras

4:20 – 4:55 pm

Sustainable Digital Transformation

Sustainable Digital Transformation focuses on avoiding the pitfalls many organizations face as they try to digitally transform their businesses. This is crucial in order to compete in a future where continually accelerating disruptive technologies, and constantly changing hypercompetitive landscapes are the new normal. In this presentation, Peter will discuss the importance of configuration management in an IoT world, why digital transformations fail, and what your organization can do to chart a path forward to deal with future threats, while sustainably digitally transforming your organization to face tomorrow's unknowns.

Tuesday, August 27, 2019**Joe Barkai, JoeBarkai.com**

8:30 – 9:05 am

Radical Digitalization and Digital Transformation: The Promise, the Reality and the Way Forward

We continue to be bombarded by “everything is digital” campaigns and calls for “end to end” enterprise transformation. While many organizations are lured by the promise of digital transformation, many find the results disappointing: KPMG reports that less than 20% of companies find their digital transformation effective.

In this talk, we will discuss transformational technologies from digital twins to artificial intelligence and their role in product lifecycle management. We will use real-world examples to understand why these technologies are prone to disappointment and why organizations often find it difficult to reap the fruits of newly harvested digital information.

We will then explore organizational and cultural challenges to achieving enterprise-wide adoption of transformational digital technologies to stimulate organizational changes and enable greater interoperability and effective collaboration between people, processes and systems.

Dr. Nathan Hartman

9:05 – 9:40

The Fourth Industrial Revolution and the Future of the Digital Enterprise

The fourth industrial revolution promises an advancement in technologies and information processing unlike we have seen in human history. Many of sectors of our global economy – manufacturing, energy, healthcare, transportation, and others – will be significantly impacted by the convergence of data accessibility, high-speed computing, and advanced human/machine interfaces. This presentation will outline the elements of the fourth industrial revolution and the nature of the digital disruption occurring in society. This digital disruption will change how people work and how organizations function. It will be up to all of us to capture the productivity this transformation can bring.

Ken Scherwinski, Saratech

10:00 – 10:35 am

Whole Product Solution through Digital Transformation

Digital transformation involves rethinking of how an organization uses technology, people and processes to fundamentally change business performance, according to George Westerman, MIT principal research scientist and author of “Leading Digital: Turning Technology Into Business Transformation.” In this session, we will discuss trends in digital transformation, why customers get frustrated with technology, the importance of organizational change management, and how companies need to take ownership of their destiny after the software is implemented.

Speaker Abstracts

Scott Perdue, Configit

10:35 - 11:10 am

Fueling the Future

At last year's ConX, we discussed why "the engine matters" regarding product complexity and digital transformation. However, engines need high-quality fuel for optimal performance. How you fuel that engine is critical to its success. Using dirty, low octane fuel can cause difficulty starting, low fuel economy and slow performance. In this analogy, the fuel is the data, people, and processes you're feeding your technology solutions. This year, we will discuss how to evaluate your "business fuel", provide tips to increase the octane, and share a vision of what a high performing, high octane engine can do for your business.

Paul Powers, Physna

1:00 - 1:35 pm

How to Double your Productivity in CAD

Learn how to double CAD productivity in 90 days or less. Powers, CEO of Physna, demonstrates new technology and techniques to double your productivity in CAD design. Highlights include how to avoid designing the same model twice, how to find files based on features or patterns, automating version control and standard compliance, and more. The tools demonstrated work with every CAD file type and are available as CAD and PLM add ons.

Breakout Sessions

1:40 – 2:15 pm

**Noe Gonzales and
Alakshendra Khare, Facebook***The Power of the Integrated Environment in a Hyper-scale Business*

Facebook Infrastructure co-designs, develops and builds most of its hardware Infrastructure and data centers. Operations Engineering is responsible for transitioning product development into production and delivery to our data centers. We are in the process of developing an integrated environment across field failures, manufacturing testing and yields, predictive analytics, hardware reliability and product data management. In this presentation we will discuss the challenges and benefits of building an integrated environment.

**Mari Wozny and Justin
Belmont, Emerson***CM2 and Configurable Products in a Global Marketplace*

Take a walk on the "wild side" of CM by joining Justin & Mari as they step you through Emerson's configurable product structure. You will get a glimpse of Emerson Flow's configuration management (CM) configure to order (CTO) environment, how CM functions globally all while becoming more CM2-like.

Cenk Onen, Roketsan*Managing of Company Culture and Organization for Process Excellence*

Company culture is a key factor in an organization's overall performance since it is a major mindset to determine an individual's performance. Hence, managing company culture has a crucial effect on transformation to process excellence and CM2, since one of the meanings of CM2 is "Culture Management". Organizational structure has a similar impact on process excellence. Structured and aligned organizations with proper processes are the key factor for successful transformation.

Roketsan continues the journey of transformation to process excellence for several years. We learned with experience that culture is the first thing we have to deal with, not the processes. We also realized that organizational structure has to be aligned in such a way that, it has support cultural change. We spent a lot of time dealing with different people in the organization (designers, quality people, product people, configuration managers, etc.) and their culture. Roketsan approach to managing the culture of engineers working in rocket science and how we organized CM2 implementation team within that scope, will be presented.

Speaker Abstracts

David Ewing, Aras

Delivering on Transformation: Bringing Systems Engineering and Simulation into the Light

For a Digital Transformation strategy to succeed, stakeholders must be willing to take a different path. They must part ways with the idea that a transformation is creating digital data (that was 1995). To deliver value, a Digital Transformation must collect and integrate disparate data and processes throughout the organization AND support derivation of useful information and analytics from it. This connected network of information is commonly called the Digital Thread. It is a fundamental, yet high-value capability for firms to ready themselves for the next decade of growth. But, it is impossible without robust Configuration Management.

This presentation will discuss how to bring three typically siloed domains – Systems Engineering, Software, and Simulation Management – out of the dark of the PLM Underground and into the Light of Configuration Management.

Breakout Sessions

2:20 – 3:05 pm

Martijn Dullaart, ASML

CM Game

This is an interactive workshop that creates awareness on 3 key principles of configuration management:

- Effective dates determine when documents and parts can be used
- Documents lead, parts follow
- Planning is the only way to control part usage in operations

John Laslavic and Ian Barnett, Upchain

PLM has Reached the End; CLM (Configuration Lifecycle Management) is Taking It from Here Forward

PLM helped us send man'd rockets to the Moon, launch Boeing 747 Jumbo Jets, and make high speed trains. But product development has radically changed since the 60's and 70's when commercial PLM solutions first appeared. Much of engineered products for industrial and consumer markets is now comprised of modules and sub-systems rather than components/parts only. Whole products are now a system-of-subsystems; a sub-system being a semi-autonomous functional discrete product in itself. Sub-systems may be entirely software, hardware and software, and may have remote cloud services to aggregate data in real time from the production product itself. Sub-systems probably get sourced from dedicated external specialized companies rather than the OEM it's self. PLM, which is usually PDM with extensions, wasn't envisioned to cope with this level of product and commercial complexity, or IT systems that are needed to enable it. This is where CLM (Configuration Lifecycle Management) comes in. CLM addresses not only the IT systems capability but also the end to end processes, the data structures and the underlying organization to support the ever changing roles of OEM's, work-groups and people. In this session we will showcase a new outcome-centric, not CAD centric, CLM paradigm which enables the underlying product stakeholder network, and the shift from products designed around basic components, to products designed around configurations sourced from the OEM's supply chain.

Configit

CLM in the Real World: Examples from the Automotive Industry

Join Erik Norup, President of Configit, Inc, as he demonstrates the real-world benefits companies can achieve using Configuration Lifecycle Management. From customer adaptation and rule engines, to database integration and legacy systems, learn how CLM can unify all phases of your products.

Speaker Abstracts

Mike McKinney, Sub-Zero Group, Inc.	<i>Changing Lanes Not Direction</i> This will be a retrospective of the last four years of successes and struggles in implementing CM2 at Subzero Group, Inc. We will also cover changes that are taking place in the formation of a formal CM2 department. We will review an assessment survey of our CM2 trained associates seeking their opinion of where we are on our journey. Lastly, we will cover our plans to obtain our True North path on our way to becoming truly an Integrated Process Excellent Enterprise.
Lev Horodyskyj	<i>Rethinking Science Education for the Anthropocene</i> With the advent of the Anthropocene, we find ourselves in an epoch where humans need to be stewards of a complex interconnected global system, yet we still teach to specific disciplines using pedagogies designed for the Industrial Age. Recent innovations in digital science education provide us with an opportunity to train the planetary stewards we will need to successfully navigate this new era of geological time. I will review some of these projects that I developed at Arizona State University, reflect on how they have impacted students, and discuss the challenges to their long-term viability in classrooms globally.

Susanne Lauda, AGCO

3:50 - 4:25 pm

Lean and Smart Manufacturing

AGCO Corporation is leading the way in innovation not only in its products but also on the factory floor, but none of the new technologies are being put in if they do not support the lean principles by which the company is run. In her presentation, Susanne Lauda will show examples of some successful implementations and talk about their benefits, but also about the risks and challenges associated with it.

Allison Grealis, Women in Manufacturing

4:25 - 5:00 pm

Cultivating a Diverse Workforce

Allison Grealis will discuss the current state of manufacturing and the importance of creating a diverse workforce. She also will provide results from the 2019 Manufacturing Training & Development Survey, conducted by Women in Manufacturing and the Coalition for Women in Industry, and address ways that WiM is combatting these training needs.

Wednesday, August 28, 2019**Peter Bilello, CIMdata, with assistance from Executive Consultant, Craig Brown**

8:30 - 9:05 am

Today's Disruptions: Sub-optimization Is Not an Option

Sub-optimization runs rampant in most organizations. Businesses and organizational structures are defined by traditional departmental lines, limited span of control, and associated measurements that significantly hamper a company's ability to make the transformational adjustments needed to maximize success. Does this sound familiar? Do your processes, procedures, and/or supporting information systems and structures yield less than the best possible outcome or output, caused by a lack of best possible coordination across organizational boundaries? If so, you need to step back and take another approach. Today's multitude of business and technology disruptors leave you no choice. This presentation will describe some of today's key disruptors that must be understood and dealt with. It will also show how to best drive an end-to-end business transformational approach that avoids the sub-optimization trap that many fall into.

Speaker Abstracts

Christine Reilly, ASME

9:05 - 9:40 am

Solving Digital Engineering Challenges: Communication, Culture, and Convergence

Digital transformation promises a host of disruptive advances across industries and technologies, from rapid development of medical devices to automation of smart factories. But significant problems stand in the way of that vision. The American Society of Mechanical Engineers (ASME)—a not-for-profit professional organization established during the First Industrial Revolution—is now looking to solve the challenges posed by Fourth Industrial Revolution through our Digital Engineering initiative.

Our research over the past year has revealed three main sources of problems standing in the way of a robust digital transformation:

1. Organizational and Cultural Barriers to Adoption
2. Lack of Interoperability and Convergence
3. Educational and Skills Gaps

This talk will address these three areas in greater depth, with a focus on the ways engineers are impacting—and impacted by—advances in modeling and simulation, development of standards, updated frameworks in education, and new models for convening and communicating with experts across disciplines.

Oleg Shilovitsky, OpenBOM

10:25 - 11:00 am

Digital Lifecycle For Manufacturing Networks

Digital transformation of the industrial sector and a growing number of network platforms are changing production processes and business dynamics. The backbone of changes is a new digital lifecycle which is relying on a new foundation of data and change management. A manufacturing company has increasingly become a system made of highly interconnected components. The information produced during an entire lifecycle plays a critical role in business success. The produced data do allow to enable new business models and generate greater value through an increase in business knowledge. The process of transformation is including multiple stages of building data networks and the transforming fundamental change management principles into a new reality of manufacturing and business.

Craig Brown, Executive Consultant (General Motors retired)

11:00 - 11:35 am

Speed to Value

Speed to value optimizes and delivers strategic process/tool programs across the entire PLM ecosystem to realize maximum value in the shortest amount of time. The approach aligns the key process disciplines for Strategic Planning, Project Portfolio Management, and Program Delivery into one framework. Measures of success and diagnostic feedback are key elements to quickly deliver value. Benefits are maximized through the prioritization, planning, and alignment of key business initiatives with solution releases. The presentation will cover methods, technology choices, measures, and lessons from Craig's PLM Leadership experiences.

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