

October 3, 2011

**Topic:** On Some Peculiarities of Parametric Distribution Analysis

**Speaker and his/her title and affiliation:** Vasiliy Krivtsov, Technical Leader, Ford Motor Co.

**Abstract:** The discussion will be focused on two case studies, one – from survival/reliability analysis and the other – involving statistical process control. The two examples demonstrate some non-obvious pitfalls of parametric estimation procedures, which may lead to sub-optimal business decisions.

**Bio:** Vasiliy Krivtsov is a practitioner and a consultant in Reliability Engineering, Risk Analysis and Applied Statistics presently employed by Ford Motor Company as a Technical specialist. He holds M.S. and Ph.D. degrees in Electrical Engineering from Kharkov Polytechnic Institute, Ukraine and a Ph.D. in Reliability Engineering from the University of Maryland, USA. Vasiliy is the author and co-author of over fifty professional publications, including two books on Reliability Engineering and Risk Analysis, nine patented inventions and three Ford corporate trade secret inventions. He is an editor of Elsevier's international journal on Reliability Engineering and System Safety and is a senior member of ASQ and IEEE Reliability Societies. Prior to Ford, Krivtsov held the position of Associate Professor of Electrical Engineering in Ukraine, and that of Research Scientist at the University of Maryland Center for Reliability Engineering. Further information on Dr. Krivtsov's professional activity is available at [www.krivtsov.net](http://www.krivtsov.net)

November 7, 2011

Topic:

Industrial Engineering in Healthcare

Speaker and his/her title and affiliation

Dr Kai Yang, Professor and Director for the Center of Healthcare System Engineering, Wayne State University

Abstract

American healthcare industry is facing increasing challenges featured by increasing healthcare cost, mediocre healthcare quality, and low operating efficiency. In other sectors of the economy, industrial engineering have been adopted and applied and great achievements have been accomplished. However, based on a 2005 report by the National Academy of Engineering (NAE), and Institute of Medicine (IOM) of the National Academies, the healthcare sector has been relative slow to adopt and apply industrial engineering tools and practices. On the other hand, the waste and inefficiency is rampant in healthcare industry, it is estimated that nearly 50% of \$2.5 trillion healthcare GDP can be classified as wastes.

In this seminar, I will discuss the important success factors for industrial engineering to effectively improve healthcare industry's performances and share my research team's successful stories. Recently, we won the bid to establish one of the 4 Veteran Engineering Resource Centers (VERC), these centers are funded by department of Veteran Affairs and they will be showcases for integrating industrial engineering methods and tools into the fabrics of health care delivery.

In this seminar, I will also discuss:

- How industrial engineering can help healthcare industry
- Overview of our projects funded by VA
- Detailed description of several VERC Projects

Bio

**Dr. Kai Yang** is a Professor in the department of Industrial and Manufacturing ,Wayne State University. His areas of expertise include Six Sigma, statistical methods in quality and reliability engineering, lean product development, healthcare system engineering, and engineering design methodologies. He is a world well known expert in the area of Six Sigma, Design for Six Sigma and quality for service and an author of five books in the areas of Design for Six Sigma, Six Sigma and, multivariate statistical methods. Prof. Yang's book, *Design for Six Sigma: A Roadmap for Product Development* is an influential book that provides a framework to integrate both innovation methods, and traditional statistical quality assurance methods into the product development process. Dr Yang is currently a leading faculty member in US Veteran Administration (VA) Center for Applied System Engineering, which is a nationwide VA initiative to use industrial engineering to improve healthcare industry. Dr Yang is also a well known trainer in the area of Six Sigma, lean, he conducted numerous training for many companies, such as Apple Inc and Siemens. Dr. Yang obtained both his MS and PhD degrees from the University of Michigan.

December 5, 2011

**Topic:**

[Assuring the Quality of Innovation, Continental Automotive Group: Delivering Invention to our Customers](#)

**Speaker and his/her title and affiliation**

Vince Mastrangelo, VP Quality, Continental Automotive Group North America

**Abstract**

**Abstract:** The global automotive industry is changing more rapidly than at any other time. The pace and frequency of innovation is at the heart of these changes in landscape. The quality playing field is leveling and the quality of innovation delivery is becoming a key differentiator. At Continental, the role of quality professionals in the innovation process is being reshaped with their Quality First Initiative. Innovation and the innovation processes are at the heart of this change.

**Bio**

**Vince Mastrangelo**



Vice President, Quality  
Continental Automotive, North America

Vince Mastrangelo was appointed vice president of quality in May 2010. In his current role, he is responsible for customer and supplier quality spanning Continental's 16 manufacturing facilities in North America.

Mr. Mastrangelo holds a bachelor's degree in mechanical engineering from Cornell University and a master's degree in business administration from Michigan State University. Additionally, he is a certified turnaround professional – designate (CTP-D), through the Turnaround Management Association, a distinction which requires expertise and dedication in the turnaround and corporate renewal industry.

In his diverse professional history, Mr. Mastrangelo has worked in the engineering, sales and marketing, operations, business unit leadership, and finance fields for companies including Dana Corporation, Thyssen Krupp, Allied Signal, Bosch, and Hendrickson International prior to joining the Continental Automotive team. A former certified quality engineer, he is the holder of many patents, and has played a key role in many of Continental's acquisitions throughout the past decade.

**About Continental**

With annual sales of more than €25.5 billion for 2010, Continental is among the leading automotive suppliers worldwide. As a supplier of brake systems, systems and components for powertrains and chassis, instrumentation, infotainment solutions, vehicle electronics, tires and technical elastomers, Continental contributes to enhanced driving safety and global climate protection. Continental is also a competent partner in networked automobile communication. Continental currently employs approximately 149,000 in 46 countries.

January 9, 2012

**Topic:**

HIGHER GROUND: The Integration of Innovation and Quality Technology

**Speaker and his/her title and affiliation**

Larry R. Smith, Ford Motor Company Retired, and Consultant, The Quality Smith

**Abstract**

The current quality technology is very rich. Solving problems and improving processes with the seven basic tools and seven management and planning tools has been the heart of quality management. Powerful, more recent methods such as lean and design for six sigma are useful for preventing problems.

The current innovation technology is also very rich. The seven creativity tools and Genrich Altshuller's TRIZ provide a means to understand the evolution of systems and to systematically identify and resolve system conflicts through team oriented innovation.

The integration of quality and innovation technology can take problem solving and process improvement to a higher, much more effective level of effectiveness. Examples will demonstrate how this concept applies for both technical and non-technical situations.

**Bio**

Larry R. Smith "graduated" (retired) from Ford in 2005 where he was quality coach of the Ford Motor Company's Heritage team, a team charged with revitalizing the Ford Rouge manufacturing complex. Larry's career emphasis has been in quality engineering and product development. He was instrumental in initiating a six sigma effort at Ford Motor Company and acted as deployment champion for the Superduty Truck Platform, whose six sigma projects saved \$49 million in the first year of operation. He was also champion of a volunteer Ford Environmental Idea Process Team, focused on developing ideas related to design and manufacture of vehicles whose use improves conditions for human beings and the environment. Larry has held a variety of quality management positions in his 27 years at Ford, primarily in Vehicle Operations, North American Truck, Powertrain Operations, and Casting Operations.

Since Ford, Larry has consulted and conducted training on quality and innovation methods with his own company, The Quality Smith, and for Ideation, GOAL/QPC, Global Productivity Solutions and the Juran Institute. He has worked with corporations such as Abbott, Delphi, Unilever, Raytheon, Apple, Bosch, organizations such as the American Society for Quality, the Public Health Foundation, the European Organization for Quality, and consulting firms in China, India, and Malaysia.

A fellow of the American Society for Quality and elected national director from 2004-2006, Smith is a past president of the Altshuller Institute for TRIZ Studies and has been involved in numerous applications of TRIZ since 1993. A member of the Board of Directors of GOAL/QPC from 1994 to 2007, Larry is also a past president of the Detroit Chapter of ASM International.

February 6, 2012

Topic: The Journey to Deploying Continuous Process Improvement at the US Department of Defense, Army TACOM Life Cycle Management Command, Warren Michigan

James M. Wasiloff

MBB and CPI Deployment Director, US Army TACOM Life Cycle Command+

**Abstract:** Since 2007, the US Army Tank-Automotive and Armaments Command (TACOM) Life Cycle Management Command (LCMC) has made efforts to institutionalize a culture of innovation and continuous improvement. The goal to have TACOM LCMC associates at every level advocate, pursue and implement continuous process improvement methods through the promulgation of Lean Six Sigma across the command is a nonstop effort. A strong record of accomplishment has been achieved with significant operational and validated financial benefits. In 2011, broad US government mandated initiatives on efficiencies have renewed the focus on Continuous Process Improvement. Challenges remain as transition from a reactive, problem solving culture to a preemptive, problem prevention enterprise is embraced.

#### Bio

- Currently serving as Master Black Belt and Director, Continuous Process Improvement, Lean Six Sigma Deployment, Department of Defense, US Army, TACOM Life Cycle Management Command
- Engaged in leading the deployment of LSS / DFSS throughout TACOM.
- MBB / Senior Manager, Reliability and Robust Engineering; Systems Engineering, General Dynamics Land Systems, Sterling Heights Michigan.
- Lead the deployment of advanced Reliability and Robustness, Lean Six Sigma and Design for Six Sigma operational excellence methodologies for the Land Systems Division.
- Managed Reliability and Six Sigma personnel located throughout the US
- Prior to joining General Dynamics, he held various Six Sigma, Quality and Reliability management and technical specialist positions at Daimler Chrysler and Ford.
- Jim is a certified Six Sigma Master Black Belt and has specialized in the implementation of Design for Six Sigma and related pre-emptive problem avoidance methodologies.
- He has authored several technical papers in Reliability, Robust Engineering, Axiomatic Design, Design for Six Sigma, Mechanism Design and Synthesis and Design of Experiments subject areas.
- He has trained and mentored many Lean Six Sigma and Design for Six Sigma Master Black Belts, Black Belts and Green Belts.
- Jim also held management and technical positions in the Automotive Industry, Defense sector and US Government with experience in military vehicle systems engineering, concept, design, development and manufacturing.
- Jim has chaired technical symposia, conferences and interchange sessions hosted by professional organizations including the Society of Automotive Engineers, American Society for Quality, American Society of Mechanical Engineers and Society of Reliability Engineers.
- He has a Bachelor of Science degree in Mechanical Engineering from Oakland University, a Master of Science degree in Industrial and Systems Engineering from University of Michigan and is currently enrolled in a Doctorate in Engineering program in Manufacturing (Reliability and Robust Engineering) at University of Michigan.
- He also serves as a Flotilla Staff Officer in the United States Coast Guard Auxiliary, Department of Homeland Security

March 5, 2012

Topic: Implementing Service Quality Standards in Financial Services

Speaker and his/her title and affiliation

Lori Dellinger – AVP, Manager of Loan Files & Image Quality (Citizens Republic Bancorp)

Service Quality Division, Chair

Young Quality Professionals Network, Co-Chair

Abstract

Implementation of service quality tools and standards can be challenging in a transactional environment. Lori will provide a case study of how she has deployed a successful quality program for a document imaging and document records department.

Bio

Lori Dellinger is Assistant Vice President and Manager of Loan Files & Image Quality at Citizens Republic Bancorp in Flint, Michigan. Lori received her Bachelor's of Arts in Anthropology at the University of Michigan-Flint, and is beginning graduate studies in Social Sciences in Fall 2011. Lori is a senior member of ASQ and is currently Chair of the Service Quality Division and Co-Chair of the Young Quality Professionals Network. She also is certified through Motorola as a Six Sigma Green Belt and attained ASQ certifications of CQIA and CQPA. Lori is a three time WCQI presenter and was invited to present at the first China-American Quality Summit in Shenzhen, China (March 2011).

April 2, 2012

Topic: An approach to Product Risk Reduction

Speaker and his/her title and affiliation

Robert Langdon – TRW Automotive - Steering

Abstract

Often Product Robustness is an afterthought once all concept and design verification work has been complete. Planning for robustness testing prior to CV and DV testing can minimize the resources and cost, while identifying and addressing risk earlier in the development process.

Bio

Robert Langdon is Graduate of GMI Engineering and Management Institute with a BSME ('89) and MSE ('94). While at Delphi he held positions in Quality, Manufacturing and Product Engineering. At GKN Sintermetals he was Six Sigma Manager for North American operations. As a Sr. Consultant for Shainin Problem Solving and Prevention he spent 10 years helping companies solve their most difficult technical manufacturing and product development problems. Most recently he is employed with TRW Automotive to focus on Product Risk Reduction and Robustness within the Steering Division.

May 7, 2012

**Topic:**

Design for Six Sigma Application – Window Regulator Noise Prevention

**Speaker and his/her title and affiliation**

Molly Mo

Technical Expert - Reliability Engineering and Applied Statistics

Americas Quality, Ford Motor Company

**Abstract**

This case study demonstrates how DFSS disciplines are applied at Ford to improve design robustness and prevent recurrence. Key steps of DFSS principles include: 1) Define: Understand customer and quality history. 2) Characterize: Understand system to characterize robustness opportunities through transfer function. 3) Optimize: Optimize design for robust performance. 4) Verify: Verify and validate results.

**Bio**

Molly Mo has worked at Ford Motor Company for 13 years in various quality roles. She has received multiple Corporate Quality Awards for her perseverance in working with teams to deliver the Best-in-Class quality performance; her leadership and execution of DFSS projects to improve design robustness; and her in-depth technical trainings to over 1000 engineers across regions.

Currently Molly is a Technical Expert in Americas Quality of Ford Motor Company. She has extensive experience in conducting statistical analysis, building predictive models of customer satisfaction, forecasting warranty, data mining etc.

Molly is a certified Black Belt and Master Black Belt through Ford Motor Company. She has a M.S. degree in Applied Statistics from West Virginia University and M.E. degree in Reliability Engineering from University of Maryland.