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3RD ANNUAL

Software Process Symposium

October 18, 2005

The Pines Manor
Edison, New Jersey

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An illustration of a man in a white shirt and green pants standing on a staircase, holding a rolled-up document. A woman in a red dress is walking up the stairs. In the background, there is a large building with many windows and a hillside with green bushes. The scene is set in a warm, golden light.

3 R D A N N U A L Software Process Symposium

October 18, 2005
The Pines Manor
Edison, New Jersey

***Join us for the 3rd annual conference
where you will experience:***

A day of engaging and informative presentations from experts in Software Process Improvement.

Three dynamic Keynote speakers, one in the morning, one following lunch, and one at closing.

Four different tracks featuring presentations on topics that are timely and offer practical advice for your software process improvement (SPI) efforts.

Time during breaks and lunch to visit vendor tables to discuss tools, techniques, services and training.

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TUESDAY, OCTOBER 18, 2005

7:30 am REGISTRATION & CONTINENTAL BREAKFAST IN THE EXHIBIT HALL

GENERAL SESSION

8:15 am WELCOME REMARKS, LOGISTICS, SPONSOR THANKS

8:30 am **EXCESS FRICTION: WHEN DEADLINES KILL PROCESS AND RUIN YOUR LIFE**
Michael Mah, QSM Associates, Inc.

TRACKS	IMPLEMENTING CMMI	SOFTWARE MEASUREMENTS	GENERAL TOPICS	MANAGING PEOPLE
9:30 am	CMMI and Process Improvement and Results: A Global Corporation – Software Organization Perspective <i>Ron Weidemann, NCR Corporation</i>	Performance Modeling – Understanding and Measuring the Benefits of Process Improvement <i>David Herron, David Consulting Group</i>	Outsourcing Failure Analysis <i>Steve Hunsberger, McGraw-Hill</i>	Moving From Reward to Reinforcement <i>John H. Maher, Jr., Organization & Process Improvement, Inc.</i>

10:10 am **BREAK IN THE EXHIBIT HALL**

10:40 am	A Case Study: Moving a Large Organization to CMMI Level 2 <i>David Rothenberg & Kuria Njenga, Depository Trust & Clearing Corporation</i>	Trustworthy Systems Through Quantitative Software Engineering <i>Larry Bernstein, Stevens Institute of Technology</i>	Cooperative Appraisals for Capability and Risk Evaluation <i>Michael Barnett, MTC Technologies & Diane Claser, US Army CECOM SEC</i>	Building a Skills-Based Co. to Facilitate Organizational and Cultural Change <i>Steven M. Venokur, People Sciences, Inc.</i>
11:30 am	Process Commonality and Extensibility <i>Dr. Michael D'Ambrosa, BAE Systems</i>	Defining Metrics with Muscle – Using ITIL as a Framework <i>Irv Brownstein, The Productivity Group, Inc.</i>	How to Balance a Software Quality Assurance Improvement Initiative with a CMMI Initiative <i>Barry Dusault, Software Management Solutions, Inc.</i>	Implementing The People Side Of CMMI – The People CMM – To Effect Organizational & Cultural Change <i>Paul D. Storfer, Human Capital Science, LLC</i>

12:10 pm **LUNCH**

1:20 pm **A CIO'S PERSPECTIVE ON PROCESS IMPROVEMENT**
Stasia Iwanicki, Capital One Financial

TRACKS	IMPLEMENTING CMMI	SOFTWARE MEASUREMENTS	GENERAL TOPICS
2:20 pm	Requirements Engineering Tool Integration <i>Dr. Lisa K. Meisenbacher, Siemens Research</i>	"As good as or better than Expert" Estimation Methods <i>Linda Laird, Stevens Institute of Technology</i>	Lean Work Cells for Software Development Teams <i>Bruce Eckfeldt & Rex Madden, Cyrus Innovation, LLC</i>

3:00 pm **BREAK IN THE EXHIBIT HALL**

3:30 pm	Friends in Small Places – The CMMI Works for Small Organizations, Too! <i>Jerome J. Guld, Center for Excellence in Software</i>	Using Six Sigma in a CMMI World <i>Larry K. Bramble, Integrated System Diagnostics, Inc.</i>	Improving Business Results with ISO 9001, ISO 90003, and CMMI <i>Harvey Stromberg & Boris Mutafelija, Systems and Software Consortium, Inc.</i>
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4:20 pm **THE SCAMPI APPRAISAL PROGRAM**
Dr. Jack Ferguson, Software Engineering Institute

5:10 pm **ADJOURN**

Presentation Abstracts

KEYNOTE SPEAKERS

Excess Friction: When Deadlines Kill Process and Ruin Your Life



Michael Mah, QSM Associates, Inc.

8:30 am - 9:30 am – The high-pressure demands of the software field are a breeding ground for conflict within and between organizations that affect us both personally and professionally. In this environment – to build more and more in less and less time – friction is a fact of life. Excess friction kills process, exacerbates conflict and can drive a team to failure, while too little is unrealistic. Somewhere in-between lies a sweet spot we call “Optimal Friction” where friction serves a useful purpose, but doesn’t cause collapse – at work, in health, and at home. He addresses how software executives and their teams can more effectively manage the high-tension pressures of work life, while maximizing chances of process improvement success.

Michael Mah is a managing partner with QSM Associates Inc., and a senior consultant with the Cutter Consortium. He is a contributing author of “IT Measurement, Advice from the Experts”, Prentice Hall ©2003, and the upcoming book, “Optimal Friction.” Michael also publishes his writings on-line through the Cutter Consortium as part of the Agile Software Development & Project Management Advisory, the Business-IT Strategies Advisory, Sourcing & Vendor Relationships Advisory, and the Business Technology Trends & Impacts Advisory Services. His experience is in organizational development, IT negotiation, software project estimation, productivity benchmarking, outsourcing, risk management, and project “runaway prevention.” Michael has been a keynote and featured speaker for events such as the SEPG, the Cutter Summit series, the Better Software Conference, PMI and SEI SPIN chapter meetings.

A CIO's Perspective on Process Improvement



Stasia Iwanicki, Capital One Financial

1:20pm - 2:20pm – Process improvement is all about transforming Information Technology. This can only be successfully accomplished when the IT executive is fully engaged, understands the required level of commitment and is capable of managing expectations throughout the organization. Stasia Iwanicki has directed major transformation initiatives for several Fortune 100 companies. Her presentation will focus on the benefits to be derived through large scale transformation and incremental continuous improvement. She will discuss the challenges and rewards of leading process improvement programs and present her thoughts on why you should pursue them in spite of the apparent obstacles and difficulties. Of greatest interest will be the lessons Stasia has learned from her many years of guiding organization improvements. Key lessons learned include how to build momentum and engage associates along with some creative ideas that can yield substantial improvements.

Stasia Iwanicki is currently the Chief Information Officer for a division of Capital One Financial based in Boise, ID. Her career began in banking 17 years ago. She has led many large process improvement initiatives with companies such as; AT&T, Fleet Bank, JP Morgan Chase and Capital One. Her passion is continuous improvement and the achievement of world class people, process, and technology. Stasia’s passion for process began with Total Quality Management in 1992 and has only grown since. She is a certified Project Management Professional with PMI, a Six Sigma Black Belt, and has been working to bring organizations to higher levels of the Capability Maturity Model since 1998. She led the effort to define formal project offices in several fortune 200 corporations including their systems development lifecycles (SDLCs). She believes strongly in the co-existence of many improvement initiatives such as: Business Process Management, industry benchmarking, LEAN process engineering, and CMMI to achieve lasting results.

The SCAMPI Appraisal Program



Dr. Jack Ferguson, Software Engineering Institute

4:20pm - 5:10pm – This session will present the requirements for SCAMPI Class A, B and C appraisals for both the appraised organization and the Lead Appraiser. It will focus on the differences between the well-known SCAMPI A method and the new SCAMPI B and C methods. It will also describe training and experience requirements to become a SCAMPI A Lead Appraiser as well as a SCAMPI B&C Team Leader. Future directions of the appraisal program will also be discussed.

Dr. Jack Ferguson is manager of the SEI SCAMPI Appraisal Program. He retired from the Air Force, where he worked in the DoD space program and was the Program Manager for the SEI in its formative years. He led development of the SA-CMM and the CMMI Product Suite, and was the Director of Software Intensive Systems for OSD from 1999 to 2001. Jack has a Ph.D. in Aerospace Engineering from the University of Texas at Austin.

“(The Symposium) was great last year and better this year. Striving to keep learning continuously is a goal that the SPIN/SMS Symposium helps to achieve.”
Jeff Davis

“This was a very thorough and comprehensive presentation of the software engineering environment today.”
**Frank Lewis
ILEX Systems**

“It was definitely well worth the time. Lots of good nuggets of wisdom.”
**John Browning
Pershing**

CMMI and Process Improvement and Results: A Global Corporation – Software Organization Perspective

9:30am - 10:10am

Ron Weidemann, NCR Corporation

This session will present the experiences of a major computer company in implementing CMM/CMMI and how it can help your organization. The talk will share actual product results from using the CMMI model and discuss the company's current direction and strategy. We will also address questions on applicability of CMM or CMMI to a Waterfall or Agile development models since NCR had successes with both. We will share the process measures currently being used in our organization. Other topics presented include considerations in migrating from CMM to CMMI, choosing the right CMMI representation (staged or continuous), and the value of IPPDs.

A Case Study: Moving a Large Organization to CMMI Level 2

10:40am - 11:30am

David Rothenberg & Kuria Njenga, Depository Trust & Clearing Corporation

This session presents a case study on moving a 400-person organization to CMMI Level 2 along with the authors' approach to tackling the challenges along the way. The talk explains differences between CMMI and CMM, examines the process areas of CMMI Level 2, and provides a summary of the logistical planning and tactical operation that were developed to identify and close the process gaps and introduce improved processes to the organization. The presentation is geared towards the beginner/intermediate person interested in learning about CMMI, process improvement and project management practices.

Process Commonality and Extensibility

11:30am - 12:10pm

Dr. Michael D'Ambrosa, BAE Systems

BAE Systems CNIR is expanding its CMMI initiative to all of engineering, which includes systems, analog and digital hardware, and mechanical engineering. In order to minimize costs, we have adapted a "maximal commonality" principle. Thus our top-level procedures are common engineering procedures, with lower-level "discipline amplifications" to deal with meaningful differences. This approach addresses the "process requirements churn" caused by acquisitions, divestitures, discipline extensions, and model extensions. Details of the process architecture evolution with supporting examples are provided.

Requirements Engineering Tool Integration

2:20pm - 3:00pm

Dr. Lisa K. Meisenbacher, Siemens Research

This session will describe a case study that highlights tools and integration methods for CMMI compliant requirements development and requirements management. Specific examples will be provided that detail the capabilities (and/or limitations) of existing commercial products that a requirements engineer may use to model a business process and elicit detailed requirements. In addition, the case study will describe three challenges encountered with tool integration: traceability, hierarchical organization, and tool maintenance.

Friends in Small Places – The CMMI Works for Small Organizations, Too!

3:30pm - 4:20pm

Jerome J. Guld, Center for Excellence in Software

The Capability Maturity Model Integration is suited for process improvement in small organizations just as well as multinational conglomerates. Challenges in deploying process improvements in small organizations are numerous and well known: small process staff, task-centric culture, and rapid priority shifts. Large organizations also have their own challenges using CMMI, and frequently overcome them by breaking the process deployment down into smaller pieces. From that perspective, small organizations are already halfway to the finish line! This presentation guides the smaller organization in recognizing and using its natural advantages to deploy process improvements more effectively.

"For the record, I thought this symposium was the best value for the money spent I have received in several years."

Alex Lamb
L3, Communications,
ILEX Systems

"Excellent choice of topics. It was difficult to choose which ones to attend and which ones to miss."

Partha Mallikarjun
Citigroup

Performance Modeling – Understanding and Measuring the Benefits of Process Improvement

9:30am - 10:10am

David Herron, David Consulting Group

Business savvy organizations typically perform a cost benefit analysis to determine the potential impact of the planned process improvements. One vehicle for determining potential benefits associated with process improvement is performance modeling. Performance models involve the development of parametric models that utilize historical data points for purposes of analyzing the impact of selected process improvements. They provide a knowledge base for improved decision making by identifying areas of high impact (e.g., productivity and quality). Senior level managers are very interested in performance modeling since it often provides an opportunity for comparison to industry best practices.

"Well organized. Advance prep made this go smoothly. High quality presentations. Great opportunity for informal networking with other professionals."

**Barbara Dreon
Northrup Grumman**

Trustworthy Systems Through Quantitative Software Engineering

10:40am - 11:30am

Larry Bernstein, Stevens Institute of Technology

This session provides the practitioner with structured experiences that teach the critical engineering skills needed to build reliable software products. This talk provides attendees with good practices that are elicited through applying stresses common in the business world and examining responses and their logical consequences. The emphasis is on problem analysis, fitting the software engineering structure to the problem, and producing products that are on schedule, within budget, and satisfactory to the customer. Case studies from practical projects are used to illustrate the practices presented. Quantitative analysis is applied to software estimation engineering principles.

Defining Metrics with Muscle – Using ITIL as a Framework

11:30am - 12:10pm

Irv Brownstein, The Productivity Group, Inc.

This presentation focuses on developing the key metrics needed to manage a successful IT Infrastructure Library (ITIL) program. The initial segment of the presentation establishes the foundation and identifies the factors that form the basis for an ITIL metrics program. Building on that foundation, you will learn how to define key metrics in each ITIL area, how the balanced score card relates to ITIL, how to determine where you are today, how to set metrics targets and goals, and how to launch a successful ITIL metrics program.

"As good as or better than Expert" Estimation Methods

2:20pm - 3:00pm

Linda Laird, Stevens Institute of Technology

Software estimation methodologies are notoriously inaccurate. Studies have shown that there are currently two estimation methods which give consistent estimation results which are as good as or better than experts. This talk will describe the Use Case Points and Estimation by Analogy methodologies along with recommendations for implementation. The talk will also provide a brief overview of estimation techniques and the problems involved.

Using Six Sigma in a CMMI World

3:30pm - 4:20pm

Larry K. Bramble, Integrated System Diagnostics, Inc.

The Six Sigma approach to process improvement involves the Define, Measure, Analyze, Improve, and Control structure. The associated techniques, methods, and tools that are part of Six Sigma can be used to implement and support the concepts of CMMI at any maturity level. This session describes how these techniques can be integrated with your process improvement infrastructure to support project and process monitoring, goal-driven process improvement, problem analysis, and defect removal. No formal company-wide Six Sigma program is required to obtain the benefits of the tools and methods.

Outsourcing Failure Analysis

9:30am - 10:10am

Steve Hunsberger, McGraw-Hill

This presentation begins by highlighting various examples of failed outsourced projects (projects not meeting requirements). It will then analyze which factors were involved in causing the failure. These factors include legal, cultural, financial, measurement, environmental or simply distance related problems. After these problems are clearly articulated, the means and methods for avoiding these problems will be explored and organized into repeatable practices. Finally, a simple set of guidelines will be presented that can be used to prevent Outsourcing contract and delivery failure. These guidelines could be implemented across many Information Technology based organizations within the US.

Cooperative Appraisals for Capability and Risk Evaluation

10:40am - 11:30am

Michael Barnett, MTC Technologies & Diane Glaser, US Army CECOM SEC

The US Army CE-LCMC SEC is working with the Software Engineering Institute in creating a framework for cooperative Government/Industry appraisals for process improvement and risk evaluation. Traditionally, all bidders for DoD projects underwent a risk evaluation which included site visits that cost the Government significant time and effort. The proposed cooperative appraisals base an award on the merits of a process proposal with the understanding that an onsite evaluation would follow after contract award. This presentation describes the efforts of the authors in performing post-award cooperative appraisals, the mechanics of a cooperative appraisal, the lessons learned, and the benefits to both the Government and the appraised organization.

How to Balance a Software Quality Assurance Improvement Initiative with a CMMI Initiative

11:30am - 12:10pm

Barry Dusault, Software Management Solutions, Inc.

Some organizations are investing in a CMMI initiative to obtain comprehensive process maturity benefits, while at the same time needing to immediately address software quality issues through implementing better testing processes. The two initiatives can be complementary, but they typically have differences in factors such as timeframe, scope within the SDLC, affected stakeholders, commitment of resources, and how the results are measured and validated. This presentation will discuss how organizations that need to pursue both types of quality initiatives can optimize their concurrent activities while making best use of related deliverables and commitment of resources.

Lean Work Cells for Software Development Teams

2:20pm - 3:00pm

Bruce Eckfeldt & Rex Madden, Cyrus Innovation, LLC

This presentation is an experience report of applying the lean work cell concept developed by Toyota in the 1960's to a software engineering project. One of the many elements of lean cells is the concept of work cells which are small, multi-skilled teams located together in a highly organized work environment. The presentation shows how companies that produce software products can improve quality, better meet end user needs, increase overall process throughput, and improve the work environment using the values and practices of lean thinking.

Improving Business Results with ISO 9001, ISO 90003, and CMMI

3:30pm - 4:20pm

Harvey Stromberg & Boris Mutafelija, Systems and Software Consortium, Inc.

The synergy between CMMI and ISO 9001/ISO 90003 makes using those standards simultaneously in process improvement advantageous. This presentation compares ISO 9001 and ISO 90003 with CMMI and then uses CMMI as a tool for structuring a process improvement program. In some instances ISO 90003 does not provide adequate guidelines for interpreting ISO 9001 for software – that's where CMMI is used to clarify ISO 9001 requirements. The maturity/capability levels of CMMI provides an effective road map for process improvement, something that is not explicitly described in ISO 90003.

"The ROI and networking (of this event) is easily 100x to 500x the cost of admission."

**Lenny Eng
Citigroup**

Moving From Reward to Reinforcement

9:30am - 10:10am

John H. Maher, Jr., Organization & Process Improvement, Inc.

For years, we've told organizations to "alter your reward system" to motivate improvement. While this is necessary, it's not enough. To get real improvement, we have to bring the message down to earth from "somebody else's program" to "the way I do my work". This talk presents a five-layer model for making that transition, based on real work, with real people, and real managers paying attention throughout the life cycle. Using the model as a framework for reinforcement, you will get a set of questions and points to emphasize, so you can apply them to your improvement efforts right away.

Building a Skills-Based Company to Facilitate Organizational and Cultural Change

10:40am - 11:30am

Steven M. Venokur, People Sciences, Inc.

Aging skill sets, retirement, new technologies, culture changes, and other factors put many companies at risk of talent loss. Yet, numerous companies ignore the most fundamental solution to address the threat of under-qualified staff – establishing a skills-based organization. An agile, appropriately skilled workforce will not only provide a significant return on investment, but also motivate people to be more productive and fulfilled. And, most importantly, talent will be available to capitalize on growth opportunities. This talk will show how to (1) build a skill assessment capability in the organization, (2) establish skill standards that send messages about career, culture and performance goals, and (3) establish a "Skills Chain" from recruitment to performance to succession planning.

Implementing The People Side Of CMMI – The People CMM – To Effect Organizational And Cultural Change

11:30am - 12:10pm

Paul D. Storfer, Human Capital Science, LLC

The People CMM (P-CMM) is a maturity framework that describes the key elements of managing and developing the workforce of an organization. It describes a path from an ad hoc approach to managing the workforce, to a mature, disciplined development of the knowledge, skills, and motivation of the people that fuels enhanced business performance. Through case studies of competency system implementation, attendees will gain insight into structured processes for managing and developing its overall workforce. These practices have been chosen from experience as those that have significant impact on individual, team, and organizational performance.

"Have lots of good ideas to take back to help with implementation planning. Different tracks offered a good variety and made for easy selection."

**Anna Alton
Users Incorporated**

3 R D A N N U A L
Software Process Symposium

October 18, 2005

The Pines Manor – Edison, New Jersey

ATTENDEE REGISTRATION FORM

1. REGISTRANT INFORMATION

First Name _____ Last Name _____

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2. SYMPOSIUM REGISTRATION FEE

Early Bird (Before 8/26/05).....\$250

Between 8/27/05 – 9/30/05.....\$275

After 9/30/05.....\$300

Symposium Registration Fee: \$ _____

On-site registrations will incur a \$25 surcharge, so pre-register by 12 noon, Monday, October 17th to avoid this fee.

3. INTRO TO CMMI® SPECIAL OFFER

By registering for the symposium you will receive a discount off the Intro to the CMMI workshop held on Oct. 19-21, 2005 (cannot be combined with other offers or promotions). For complete workshop details, call or visit us on the Web at www.softwarems.com/training/courses/sei-cmmi.shtml.

Early Bird (Before 9/21/05).....\$950 (regular \$1075)

After 9/21/05.....\$1050 (regular \$1195)

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CANCELLATION POLICY

*Cancellations by 8/26/05 will receive a refund minus a \$25 administrative fee.

*Cancellations between 8/27/05 and 9/30/05 will receive a refund minus a \$100 administrative fee.

*No refund after 9/30/05