

Practical Software and Systems Measurement

Practical Software and Systems Measurement

A foundation for objective project management



**PSM Users' Group
Conference
Keystone, Colorado**

July 26-30, 2004

PSM 1

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Measurement for Enterprise Excellence

PSM 2

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2004 PSM Users' Group Conference

*Sponsored by the PSM Support Center
and the International Council on
Systems Engineering*

*in cooperation with ASQ Software
Division*



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Conference Welcome and Introductions

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Objectives

- **Conference Participants**
 - *User perspectives - share lessons learned*
 - *Discuss guidance for new areas*
 - *Information on related initiatives*
- **PSM Project Expectations**
 - *Technical Inputs in development of new guidance*
 - *Interaction with users - experiences using PSM*

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Logistics

- **Meals**
 - *Breakfast Daily*
 - *Lunch Provided - Tuesday / Thursday*
 - *Dinner - Wednesday at Keystone Stables*
- **Registration/Logistics at the Conference Center**
- **If you need to be reached during the meetings, 970-496-4142**
- **PSM Polo Shirts on Sale for \$35.00 - Stop by the Registration Table**
- **Thursday evening PSM Insight side**
 - *Meet at 1730 by registration desk*
- **Turn in Evaluation Forms and Survey before leaving (drawing for prize)**

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Dinner - Keystone Stables

- **Wednesday, 28 July**
 - 7:00pm **Cash Bar**
 - 8:00pm **Dinner**
 - **DJ/Dance Instructor**
 - **Directions/Shuttle Information in Conference packet you received**
- **Guests are allowed to attend for \$40.00/each - please stop by the registration desk**
- **Casual**

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Agenda

- **Tuesday**
 - **Presentations, 0830 - 1715**
- **Wednesday**
 - **Presentations, 0830 - 1215**
 - **Workshops, 1345 - 1730**
- **Thursday**
 - **Workshops, 0830 - 1200**
 - **Workshops, 1300 - 1715**
- **Friday**
 - **Presentations, 0830 - 0900**
 - **Workshop Outbriefs, 0900 - 1100**

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Agenda

- **After Meeting**
 - **Presentations and Workshop Materials Available from PSM Web Site (www.psm-sc.com)**
 - **CD Will Be Mailed to Each Participant**

Workshops

- **Acquisition Measurement**
- **Safety and Security Measurement**
- **Implementing and Sustaining a Measurement Program**
- **Systems Engineering Measurement - SE Size Measures and COSYSMO Working Group**
- **Process Improvement Measurement Guidance**
- **Measurement in High Maturity Organizations**

Accomplishments This Year

- **Sample Measurement Specifications Developed (template, 16 on web, 15 in review, more under development)**
- **New Technology Papers in Development**
 - *Acquisition Measurement (draft)*
 - *Measurement of Safety and Security (draft)*
 - *Systems Engineering Technical Measures (draft)*
- **PSM Insight Releases - Maintenance upgrades**
- **Rational measurement plug-in**
- **Training Materials v5.0g Developed**
- **Web Site Updates**

Rational Measurement Plug-In

- **Version 1 Released in 2003 for Beta Test and 2004 for Use**
- **Survey of Usage**
 - *People who have downloaded the PSM RUP Plug-in, Version 1?*
 - *People who have deployed the PSM RUP Plug-in, Version 1 in a production environment?*
 - *People who plan to deploy the PSM RUP Plug-in, Version 1 in a production environment?*
- **Version 2 under development**
 - *Incorporates comments from TWG and usage*
 - *Planned for release - 4th quarter 2004*

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FY04/05 Activities - Get Involved

- **Technology Papers (Review Team, Trials)**
 - *Systems engineering technical measures*
 - *Measurement of safety and security processes (PSM/UK/Australia collaboration)*
 - *Acquisition measurement (including 804 performance measurement requirements)*
 - *Measurement in the Rational Unified Process (PSM/Rational collaboration) - trials*
- **Additional Examples to Support Guidance - Measurement Specifications**
- **Experience Reports**
- **Case Studies and Papers**

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FY04 Schedule - Public Courses

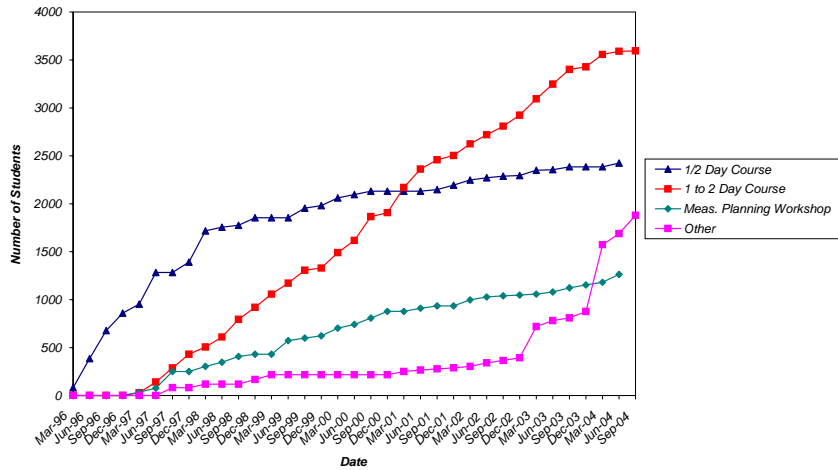
- **PSM Training**
 - *Fall 2004 - VA area*
- **PSM Insight Training**
 - *Fall 2004 - VA area*
- **PSM Train-the-Trainer Course**
 - *Fall 2004 - New Jersey*
- **Technical Working Group Meetings**
 - *PSM TWG - Feb/Mar 2005, Herndon, VA*
 - *Users' Group Meeting - July 2005, Colorado*

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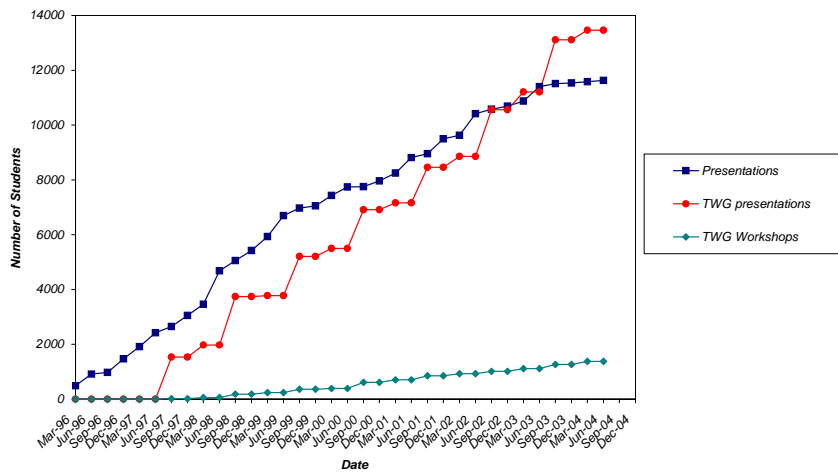
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PSM Transition Activity (Cumulative as of July 2004)



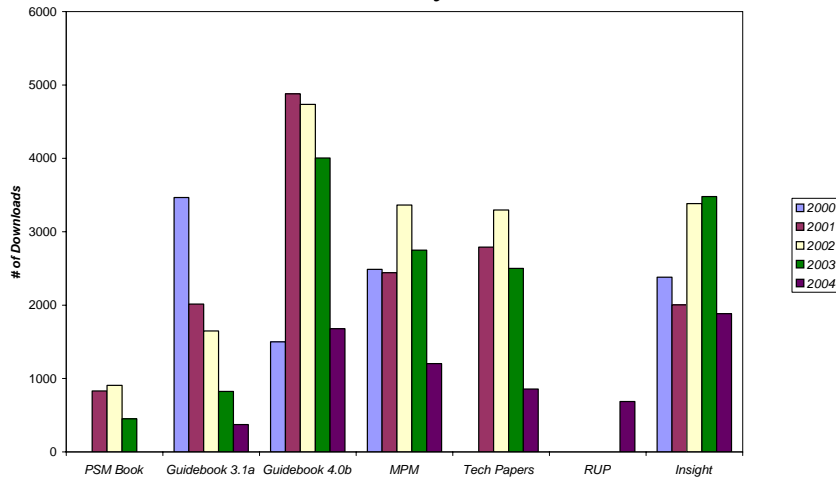
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PSM Performance Management (Cumulative as of July 2004)



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Web Downloads As of July 2004



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PSM Participating Organizations

DoD and Government

- US Air Force AFMC
- US Air Force SSSG
- US Air Force STRATCOM
- US Air Force STSC
- US Army AMC
- US Army CECOM
- US Army RDECOM-ARDEC
- US Army SAALT
- US Army SMDC
- USMC MCTSSA
- US Navy AEDC
- US Navy ASN RDA
- US Navy FMSO
- US Navy NAVAIR
- US Navy NAVSEA
- US Navy NAWC
- US Navy NRL
- US Navy NSWC
- US Navy NUWC
- US Navy OPTEVFOR
- OSD NII
- OSD PA&E
- ODUSD (S&T)
- Aerospace Corp.
- Dept of Homeland Security, Customs & Border Protection
- DAU-DSMC
- DCMA
- DFAS
- DISA
- DLA
- FAA
- IDA
- MITRE Corp.
- NASA
- Sandia National Lab
- Soc. Sec. Admin.
- Software Engineering Institute

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PSM Participating Organizations

Industry

- ACS GSG
- Accenture, Quality and PI
- Alion Science and Technology
- American Sys. Corp.
- Ameritrade Corporation
- Argon Engineering Associates
- Assurance Engineering
- BAE Systems
- Bloodworth Int. Tech.
- Booz Allen Hamilton
- CMIS
- CTA
- Carnegie Mellon Univ.
- Computer Sciences Corp.
- David Consulting Group
- Distributive Software
- Federal Reserve Bank
- First Line Partners
- Frunhofer Ctr. For Experimental Software Engineering
- GTE
- Galorath, Inc.
- General Dynamics
- General Scientific Corporation
- Graeme & Garland
- Hawaiian Electric
- IEEE
- IFPUG
- IITRI
- INCOSE
- ITABHI
- Independent Engineering, Inc.
- IBM
- Jacobs Sverdrup
- James Gregory Assoc.
- Kodak Health Imaging
- L3 Communications
- Lockheed Martin
- Nat. Renewable Energy Lab.
- Northrop Grumman
- OAO Corporation
- Pragma Systems Corporation
- PRICE Systems, LLC
- QSM
- Quality Plus Tech.
- Raytheon - Hughes
- Reifer Consultants
- Robbins, GIOIA
- Rockwell Collins
- SAIC
- Sallie Mae
- SETA
- Sentel
- Software Engineering Assoc., Inc.
- Software Management Solutions
- Software Metrics, Inc.
- Software Productivity Consortium
- Tecolote Research, Inc.
- TeraQuest Metrics
- Texas Guaranteed Student Loan Corporation
- Titan Corporation
- Tivoli
- United Defense
- Univ. Southern CA
- Upsart Systems, LLC
- User Trust Network
- US West
- VPI - State University
- West Virginia High Tech. Consortium
- West Virginia University
- Whittaker Group
- Wind River Systems
- Xcel Energy

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PSM Participating Organizations

International

- Liveware I.S.S.A. (Argentina)
- ADI Limited (Australia)
- Australian Defence Force Academy (Australia)
- Defence Materiel Org.-Australian DoD (Australia)
- Jacobs Sverdrup Technology (Australia)
- Motorola SOC Design Center (Australia)
- S-3 Consulting Pty. Ltd (Australia)
- Saab Systems Pty. Ltd. (Australia)
- Software Improvements Pty. Ltd. (Australia)
- Software Quality Institute (Australia)
- Tenix ESD (Australia)
- ti Metrics (Brazil)
- General Dynamics (Canada)
- NRC (Canada)
- Amdocs (Israel)
- Tangram Hi-Tech Solutions (Israel)
- Centro de Investigacion en Matematicas (Mexico)
- Ericsson Espana SA (Spain)
- Defense Science and Technology Labs (UK)
- UK Ministry of Defense (UK)
- University of York / York Metrics Ltd. (UK)

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Transition Organizations

DoD and Government

- ***US Army RDECOM - ARDEC (PSM Support Center)***
- ***US Air Force Software Technology Support Center***
- ***US Navy NAVAIR***
- ***Naval Undersea Warfare Center***
- ***Aerospace Corporation***
- ***Defense Contract Management Agency***
- ***Defense Acquisition University - Defense Systems Management College***
- ***Federal Aviation Administration***
- ***MITRE Corporation***
- ***Software Engineering Institute***

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Transition Organizations (cont.)

Industry

- ***Argon Engineering Associates***
- ***Computer Sciences Corporation***
- ***David Consulting Group***
- ***Distributive Software***
- ***INCOSE***
- ***Lockheed Martin***
- ***Northrop Grumman***
- ***Quality Plus Technologies, Inc.***
- ***Software Management Solutions***
- ***Software Productivity Consortium***
- ***TeraQuest Metrics***
- ***Texas Guaranteed Student Loan Center***
- ***Titan Corporation***

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Transition Organizations (cont.)

International

- **Liveware I.S.S.A (Argentina)**
- **ADI Limited (Australia)**
- **Australian Defence Force Academy (Australia)**
- **Defence Materiel Organisation - Australian DoD (Australia)**
- **Jacobs Sverdrup Technology (Australia)**
- **Motorola SOC Design Center (Australia)**
- **S-3 Consulting Pty. Ltd. (Australia)**
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- **ti Metricas (Brazil)**
- **Tangram Hi-Tech Solutions (Israel)**
- **Centro de Investigacion en Matematicas (Mexico)**
- **University of York/York Metrics Ltd (UK)**