Practical Software and Systems Measurement

A foundation for objective project management

PSM Users' Group Conference Keystone, Colorado

July 22-26, 2001

Objective Information for Decision Makers

Practical Software and Systems Measurement

2002 PSM Users' Group Conference

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

in cooperation with ASQ Software Division

Conference Welcome and Introductions

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*

Logistics

- *Meals*
  - *Breakfast Daily*
  - *Lunch Provided - Tues/Thur*
  - *Dinner - Wed*
    - *7:00pm - Dinner (Cash Bar) - River Run Cafe*
- *Registration/Logistics*
  - *Conference Center*

PSM Conference Dinner

- *Travel to River Run - end of Keystone, turn right from right turn only lane*
  - *Keystone Bus*
  - *Paid Parking (nearby)*
  - *Free Parking (front of River Run area)*
- *Cross the Bridge to River Run Café (near the gondola)*

Logistics

- ## *Dress - Summer Casual*

- ## *Messages*
  - *970-496-2316 - message will be left in your room*
  - *Emergencies only - 970-496-4142 - ask for PSM Conference*

- ## *Group Picture*
  - *Wednesday at 1000 - wear shirts*
  - *Follow-the-leader from the registration desk*

Agenda

- *Tuesday*
  - *Presentations, 0830 - 1645*

- *Wednesday*
  - *Presentations, 0830 - 1215*
  - *Workshop Session 1, 1315 - 1715*

- *Thursday*
  - *Workshop Session 2, 0830 - 1200*
  - *Workshop Session 3, 1300 - 1630*
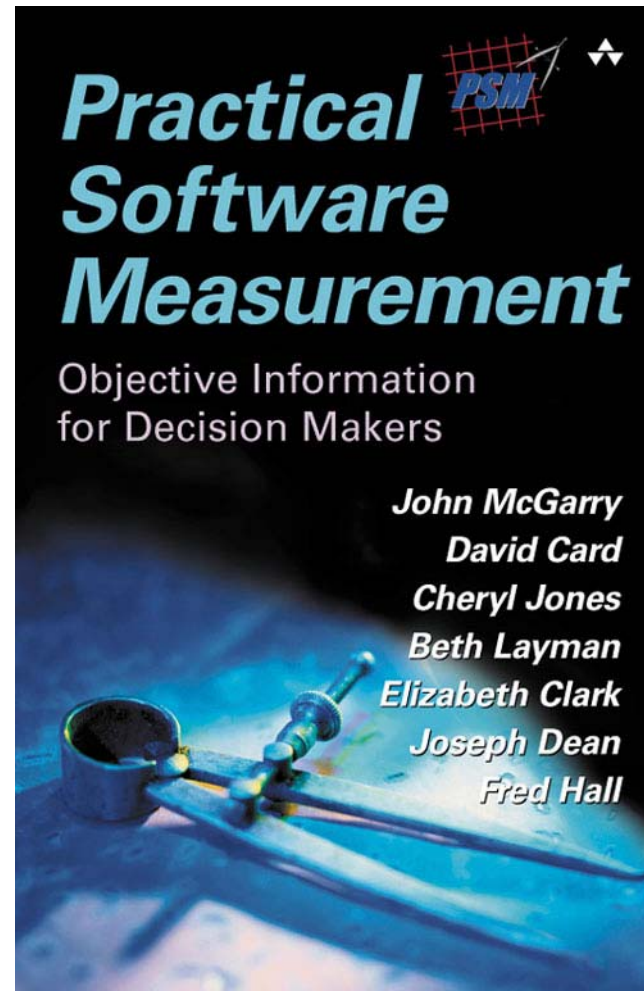
- *Friday*
  - *Wrap-Up and Out-Briefs, 0830 - 1200*

Workshops

- *COSYSMO*

- *Mapping of Measurement Standards (PSM/CMMI/15939, Software, SE)*

- *Progress Measures (General, Rqmts, COTS)*

- *Business Cases for Measurement*

- *Tailoring for Acquisition Support Projects*

- *Measuring Effectiveness of Risk Management Processes*

- *Conducting Effective Pilot Studies*

- *SE Reliability*

Major Accomplishments This Year

- *PSM Published by Addison Wesley*
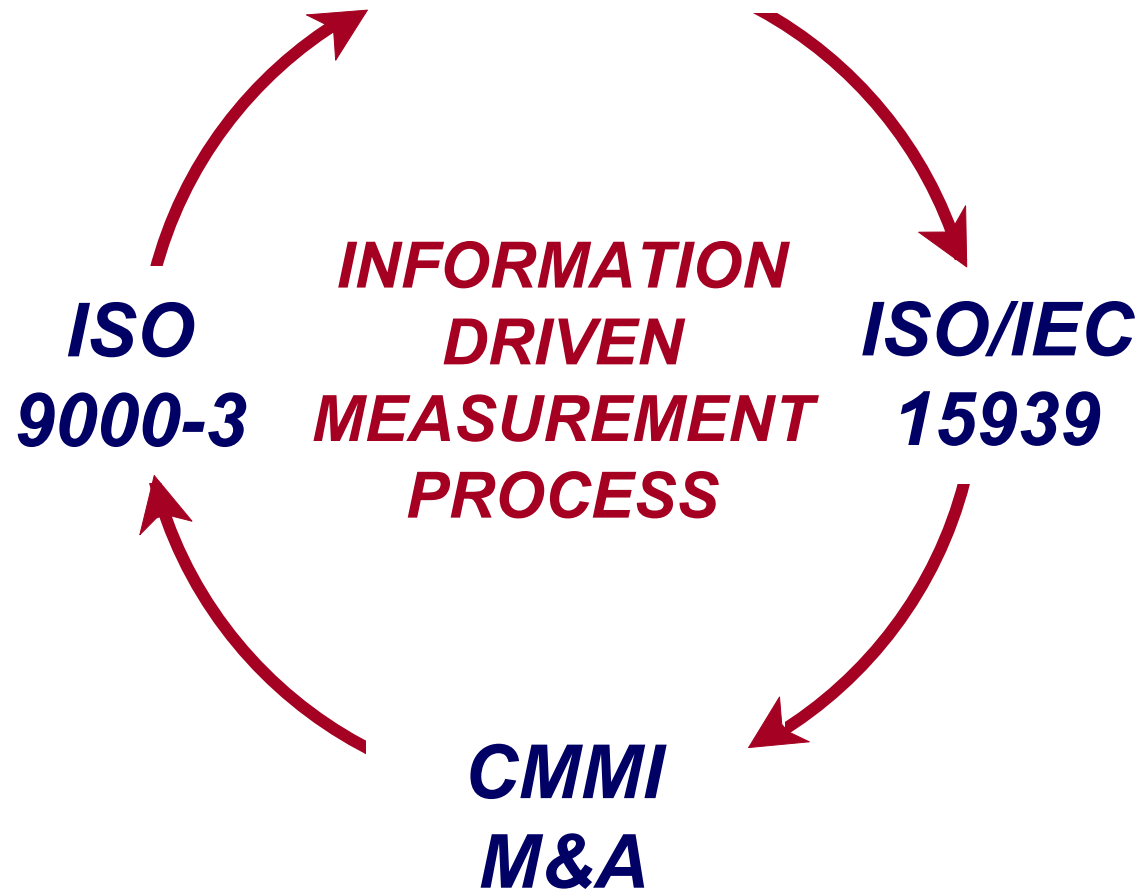
Accomplishments This Year (cont.)

- *CMMI MA Process Area, ISO/IEC 15939, and PSM are Technically Consistent*
  - *CMMI update - MA used in appraisals*
  - *ISO/IEC 15939 passed FDIS Ballot*
  - *PSM updates (field trials)*

- *Training Materials v5.0b Developed*
  - *Mapped to ISO/IEC 15939, Book*
  - *Train-the-Trainer class held 17-19 August 2002*

- *Field Trials of Technology Papers*
  - *Object Oriented Developments*
  - *Spiral/Evolutionary Developments*

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ISO 9000-3

INFORMATION DRIVEN MEASUREMENT PROCESS

ISO/IEC 15939

CMMI M&A

Accomplishments This Year (cont.)

- *PSM Insight Releases - v4.1.2a*
  - *Calculated series and derived measures*
  - *Measurement plan template implementation*
  - *New indicator types - Rolling Periods*
  - *Attribute-by-attribute indicators*
  - *More flexible graphing of dates*
  - *Excel import / export*
  - *Extraction of data table*

- *Created PSM Insight Partnership Program*

PSM Insight Partnership Program

- *Looking for Active Partners for PSM Insight Testing*

- *Benefit to Project:*
  - *Requirements definition based on user needs*
  - *Additional testing*
  - *Test environments / data*

- *Benefit to Partners:*
  - *Ability to influence requirements*
  - *Early test versions of Insight*
  - *Increased functionality - reduced defects*

- *If Interested, Submit an Abstract Detailing Potential Involvement*

FY02/03 Activities - To Be Completed

- *PSM for Process Improvement*

- *Web Site Update*

- *PSM Updates - Parts 8-10*

FY03 Activities - New Tasks

- *Develop Additional Examples to Support Guidance - Measurement Specifications*

- *Measurement with Risk and Performance Management*

- *PSM Insight Releases*
  - *Organizational database capabilities*
  - *Updated terminology*
  - *Enhanced database*

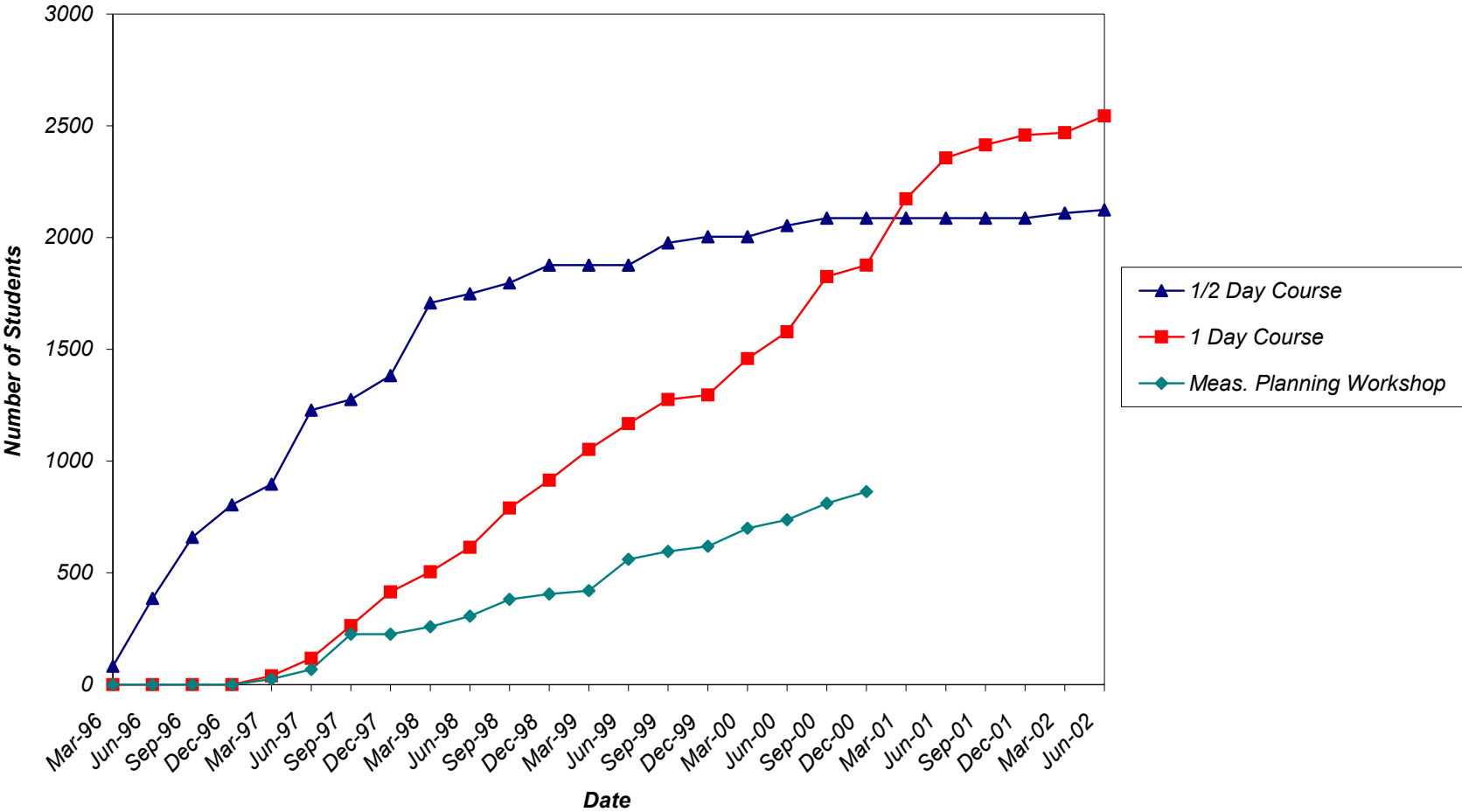- *Case Studies and Papers*

FY03 Studies - Opportunities for Participation

- *Reliability - Workshop Wednesday afternoon*
- *Safety - Meeting at Lunch Tuesday*
- *Business Cases*
- *Measurement Specification Examples*
- *Case Studies*

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FY02/03 Schedule

- *PSM Insight Training*
  - *13-15 August 2002*

- *PSM v5.0 Refresher Training*
  - *Fall - TBD*
  - *Before TWG - January / February 2003*

- *Technical Working Group Meeting*
  - *January / February 2003*

- *Users' Group Meeting*
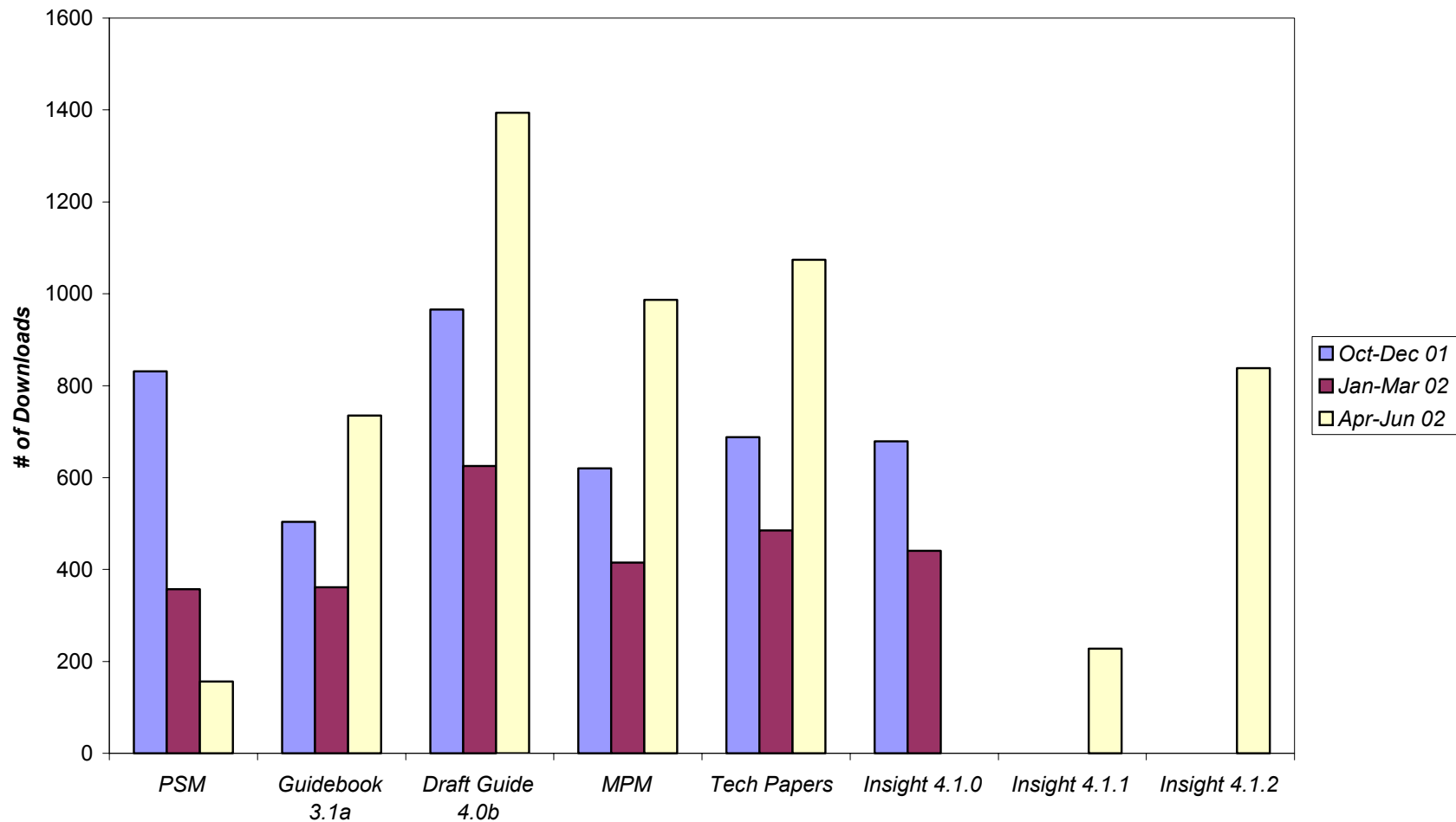 - *July 2003*

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PSM Transition Activity
(Cumulative as of Jun 02)

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Web Downloads

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PSM Participating Organizations

DoD and Government
- US Air Force AFMC
- US Air Force SSSG
- US Air Force STSC
- US Air Force CRSIP
- US Air Force STRATCOM
- US Army AMC
- US Army ATEC
- US Army CECOM
- US Army ODISC4
- US Army SMDC
- US Army TACOM - ARDEC
- 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
- ODUSD (S&T)
- OSD C^{3}1
- OSD PA&E
- Aerospace Corp.
- DCMA
- DFAS
- DISA
- DLA
- DSMC
- FAA
- IDA
- MITRE Corp.
- NDU IRM College
- NASA
- National Park Service
- Sandia National Lab
- SEI
- Soc. Sec. Admin.

International
- Defence Materiel Org. (Australia)
- LiveWare (Argentina)
- NRC (Canada)
- Software and Systems Engineering (Israel)
- Software Improvements (Australia)
- Software Quality Institute (Australia)
- ti Metricas (Brazil)
- Defense Science and Technology Laboratory (UK)

PSM Participating Organizations

Industry

- Abbott Diagnostics
- ABN AMRO Bank
- Accubid Systems
- ACS GSG
- American Sys. Corp.
- Averstar
- BAE Systems
- Bank of America
- Bloodworth Int. Tech.
- Carnegie Mellon Univ.
- CMIS
- CSC
- CTA
- Distributive Software
- D.N. American, Inc.
- DynCorp
- Federal Reserve Bank
- General Dynamics
- General Scientific Corp.
- Graeme & Garland
- GTE
- Hawaiian Electric
- IEEE

- IFPUG
- IITRI
- INCOSE
- Independent Engineering, Inc.
- ITABHI
- James Gregory Assoc.
- Kodak Health Imaging
- Litton/TASC
- Lockheed Martin
- L3 Communications
- NMI Associates, Inc.
- Northrop Grumman
- OAO Corporation
- PRC - Litton
- PRC/TASC
- QSM
- Quality Plus Tech.
- Rational Software
- Raytheon - Hughes
- R.J. Kohl & Associates
- Robbins, GIOIA
- Rockwell Collins

- SAIC
- Sallie Mae
- Sentel
- Software Metrics
- SPC
- Sverdrup Tech.
- Tecolote Research
- TeraQuest Metrics
- Tivoli
- TRW
- Tybrin Corporation
- United Defense
- Univ. Southern CA
- User Trust Network
- US West
- Veridian
- VPI - State University
- West Virginia High Tech. Consortium
- West Virginia University

Transition Organizations

DoD and Government

- *PSM Support Center*
- *US Army ATEC*
- *AFMC CRSIP - STSC Measurement Teams*
- *Federal Aviation Administration (FAA)*
- *Software Engineering Institute*
- *MITRE Corporation*
- *Defense Systems Management College*
- *Naval Undersea Warfare Center (NUWC)*
- *Naval Air Warfare Center (NAWC)*
- *DCMA Software Center*
- *The Aerospace Corporation*

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Transition Organizations

Industry

- *Lockheed Martin*
- *Software Productivity Consortium*
- *TeraQuest Metrics*
- *INCOSE*
- *TRW*
- *Distributive Software*
- *DynCorp*
- *QP Management Group, Inc.*
- *Quality Plus Technologies, Inc.*
- *Texas Guaranteed & Student Loan Center*

Overseas

- *Defence Materiel Organisation (Australia)*
- *Software Quality Institute (Australia)*
- *Software Improvements Pty Ltd. (Australia)*
- *Liveware I.S.S.A (Argentina)*
- *Software and Systems Engineering (Israel)*
- *ti Metricas (Brazil)*