

INCOSE TECHNICAL BOARD
LIAISON ADVISORY STATEMENTS
(INCOSE-TA-2003-008-01)

Approved by the INCOSE Technical Board on June 29, 2003

A. Name of Liaison Effort – Practical Software and Systems Measurement

B. INCOSE Liaison Representative – Garry Roedler

C. INCOSE point of contact and participants -

C.1 Address Lockheed Martin Management and Data Systems
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D. Description of proposed standard or liaison activity

A liaison exists between INCOSE (MWG) and the Practical Software and Systems Measurement (PSM) Initiative in order to develop and maintain the integrated “Practical Software and Systems Measurement” product line. This includes participation in key PSM strategic and tactical planning activities.

E. INCOSE's level of participation

- Member of PSM Steering Group and Strategic Planning Committee
- Part of development/maintenance team for PSM guidebook and associated products (e.g., white papers, briefings, training)
- PSM transition organization – provide training, presentations, and workshops on PSM and its applications in conjunction with the PSM project office
- Co-sponsor of the annual PSM User Group Conference (INCOSE has been a co-sponsor for the past 3 years – no cost to INCOSE other than publicity via Insight newsletter and flyers at symposium – good visibility of MWG activities)

F. Justification, including relevance to INCOSE and its members

The liaison has actually been in place at the MWG and TC level since 1997. This proposal is intended to raise the visibility and awareness of the liaison across INCOSE and promote greater integration of the work program. The INCOSE MWG led the project to expand the PSM scope to include systems. The PSM Guidebook V4.0 acknowledges INCOSE contributions. PSM has also been the basis of the current measurement approach used in the MWG products/projects. The approach has been leveraged for CMMI and several ISO process standards (ISO/IEC 15939, ISO/IEC 12207, and ISO/IEC 15288). Through the MWG and its association with PSM, we have had the opportunity to influence the development of the measurement content of these important documents. It is important to continue this level of influence to help achieve the INCOSE objectives.

- Provides greater visibility of INCOSE taking a leadership role in the engineering community.

1. Acknowledgement in guidebook (several thousand copies distributed), training courses, and briefings
 2. PSM/INCOSE MWG briefings (over 2,000 people in past 2 years)
 3. Listing as a Transition Organization on PSM web site
 4. Co-sponsorship of PSM User Conference (approx. 100 people per year, including key DoD and industry leaders)
- Significantly reduces cost and timeline for the generation of an integrated systems measurement product line for the engineering community.
 - Associates INCOSE with the widely used PSM product line. PSM has become the defacto standard for software and systems measurement. This liaison shows that INCOSE is interested in promoting more standardized processes.
 - Provides a well-structured, consistent, and proven measurement process for both software and systems that is consistent with the complementary INCOSE measurement products.

G. Objectives satisfied or to be satisfied

1. Current CAB Objectives aided by this liaison:
 - a. OBJECTIVE: Assemble a collection of proven SE process, methods, practices, and handbooks for commercial and government applications.
 - Current PSM product line includes well-structured, consistent, and proven measurement process for both software and systems that has become a defacto standard for measurement in many applications.
 - b. OBJECTIVE: Assemble a collection of proven SE Training Materials for commercial and government applications.
 - Current PSM product line includes training courses of various lengths. It has been administered to several thousand people from both government and commercial applications with excellent feedback.
 - c. OBJECTIVE: Maintain Awareness of On-Going Activities in the Industry Standards Arena, leveraging the investment of INCOSE Member Companies in this same area so as a community we are proactively engaged and aware of standards activities that may impact us.
 - The PSM measurement approach has been leveraged for CMMI and several ISO process standards (ISO/IEC 15939, ISO/IEC 12207, and ISO/IEC 15288). Through the MWG and its association with PSM, we have had the opportunity to influence the development of the measurement content of these important documents. Our work has leveraged the investment in standards by LMC, SPC, Mitre, DoD, and Distributive Software.
 - d. OBJECTIVE: An SE Relevant Parametric Cost Estimating Tool
2. In the past, several CAB Objectives/Priorities have been satisfied by this liaison. (Available upon request.)

H. Dependencies, risks, and issues

No risks identified looking forward. No risks or issues seen in the past association.

Past association has been dependent on INCOSE MWG expertise and effort contributed. This liaison is dependent on ongoing interest and effort by the MWG.

I. Anticipated schedule

1. PSM User Group Conference – 14-18 July 2003 (occurs every July – schedule is deconflicted with INCOSE symposium)
2. Collaborative white paper on Technical Performance Measurement (draft on 1 July 2003, final by 1 September 2003)
3. Steering Group meetings quarterly
4. PSM Technical Working Group meeting – February 2004
5. Training sessions – ongoing, as scheduled

J. Relationship to existing/planned collaborations and other standards activities

- Some relationship to COSYSMO project due to joint team and overlap of INCOSE people.
- Products of the MWG are developed with a consistent set of concepts, terminology and approaches to those in PSM, selected standards, and CMMI in order to provide additional consistency in the measurement products available to the engineering community.

K. Relationship to INCOSE Technical Operating Plan, if any

None known.

L. Expected Duration of Effort

Ongoing. Liaison has been in place at MWG and TC level since 1997.

M. INCOSE privileges and other benefits (e.g. price discounts, name/logo on cover, etc.)

1. See justification above. Significant visibility for INCOSE, including acknowledgements in guidebook, training, and briefings.
2. All products created as a result of this collaborative effort shall be available for use and distribution by the INCOSE MWG/TB and the PSM project.

N. Draft Joint Working Agreement (or plan for developing), as required

N.1 Signatures

N.2 Date signed

N.3 Location of Agreement

O. Key Issues and INCOSE Advisories

O.1 Issue #1 – Future measurement product needs

O.1.1 INCOSE Advisory – Plan is to influence the PSM Steering Group and Strategic Planning Committee to develop web enabled guidance. This should include an online

candidate measurement specification repository that can be queried by various project attributes to determine a focused set of candidate measures that are applicable to the subject project.

O.2 Issue #2 – Future measurement training needs

O.2.1 INCOSE Advisory - Plan is to influence the PSM Steering Group and Strategic Planning Committee to develop CBT or web enabled training for various audiences.

Approved by the INCOSE Technical Board William F. Mackey, Chairman

Date: June 29, 2003