Practical Software and Systems Measurement

A foundation for objective project management

Effective Measurement Implementation

PSM Users Group Conference 2001

Snowmass Village, Colorado

Department of Defense
U.S. Army

Objectives of the Workshop

- *Bring Workshop attendees 'up to speed'*
- *Improve the Measurement Planning Template*
- *Identify 'Evidence' of Measurement Implementation*
- *Solicit Volunteers (take prisoners) to assist with standards mapping*

Workshop Background

- ***3rd Workshop on the Measurement Planning Template***
- ***Version 1 was released after the 2nd WS***
- ***Version 2 will be release after 3rd WS during 4Q2001***
- ***Some of our source material is undergoing minor changes that need to be reflected in Version 2***

Workshop Participants

- *Bikshapathi Adepu*
- *Weldell Mullison*
- *Tom Ryan*
- *Margaret Adcock*
- *Esteban Zuttion*
- *Andre Marcotte*
- *Carl Newman*
- *Ed Evers*
- *Tom Davis*
- *Tom Majewski*
- *Paul Croll*
- *Guy Mercurio*
- *Dana VanOrman*
- *David Magidson*
- *Becky Grant*
- *Ruth Buys*

Results of the Workshop

- *A 'good time' was had by all*
- *8 Improvements were recommended for the Measurement Planning Template (MPT)*
- *Suggested Improvements were made to the MA Practice Implementation Indicator*
- *A list of 'volunteers' / recruits was made for the Standards Compliance Matrix*

8 Improvements for the Template

- *Update the Glossary of Terms*
- *Review & Revise use of 'attribute' in Appendix A*
- *Update Figure of Information Model from 15939*
- *Enhance 'implementation considerations' in Section on Implementation Strategy*
- *Add Section on 'Evaluate & Improve'*
- *Complete Standards Compliance Matrix*
- *Include in Dependencies / Relationships section guidance about 'measurement context diagrams'*
- *Add additional standards / guidance to Appendix G*
  - *ISO9000-3, ISO9001:2000, FAA ICMM*

‘Volunteer’ Recruits for Standards Mapping (Appendix G)

- CMMI - Kevin R / Joe J
- PSM - Cheryl J
- ISO15939 - Khalid E
- DoD5000.2 - Kevin R
- IEEE12207 - Dana V
- ISO15288 - Garry R
- ISO9126 - Kevin R
- ISO14598 - Cheryl J
- ISO9000-3 - TBD
- ISO9001:2000 - ASQ?
- ISO14143 - Caroll D
- IEEE982 - Paul C
- ICMM - Tom Ryan
- IEEE1044 - Paul C
- IEEE 1045 - Paul C
- IEEE1061 - Paul C

Draft Improvement for MA PII SP1.1

Practice ID	MA SP1.1-1. *Establish and maintain measurement objectives that are derived from identified information needs and objectives.*		
PII ID	Work Products (EST.WP)	Indirect Artifacts (EST.ART)	Affirmations (EST.IAFF)
Example Evidence	[1. Documented measurement objectives] • Revisions to measurement objectives Measurement objectives / criteria documented in organizational policies and plans (e.g. strategic, performance, risk management, Quality Assurance)	• Alignment between business goals, measurement objectives/goals, information needs/objectives (questions) • Identified information needs and objectives. • Documented sources of information needs (see model, e.g., strategic plans, process improvement plans, management interviews). • Reviews of measurement objectives with affected stakeholders (e.g., management, providers, users). • Change History of the documented objectives / information needs • Performance objectives for management personnel • Minutes from management meetings regarding the need for information / measurement data etc.	• How do you determine your measurement objectives? • How do you record information needs? • How do you determine the selection of the measures you collect? • DCMA.mil – business plan (Becky Grant) • How do you know your measurement objectives / goals currently support information needs? • Why do you measure THAT !
Assessment Considerations	• The key concept is to "maintain" the alignment of measurement objectives as the information needs evolve over time. This could be performed on an annual basis, or otherwise. • SPs in the MA PA are fairly low level and atomic, relative to other PAs. This puts additional burden on the assessment team to ensure sufficient data ~~and indicators are collected at the practice level, distinct from other practices. It may be difficult to distinguish objective indicators for this PA at the~~ project/organization level on a practice basis; e.g., a single indicator may be used to support implementation of multiple practices. This may also put ~~greater emphasis on interviews as a source of implementation indicators and objective evidence.~~ • Determining the source of information needs may be a challenge if information needs via other processes (Project Planning, Project Monitoring & Control, Risk Management) is insufficiently documented. • Indirect artifacts may be a better source for information needs than stand alone direct work products. • For ML3+ a project will have measures from OPD standard measures as well as project specific information needs. • ~~Consider the project focus, organization focus when assessing this SP at ML2/CL2 vs. ML3/CL3~~		
CMMI Notes	None		

Summary

- ***Excellent Group of Participants***
- ***Real Substantive Progress on Measurement Planning Template***
- ***Quality Feedback on MA PII***
- ***Enthusiastic group of 'volunteers' for Standards Compliance***
- ***THANK YOU ! !***