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The following comments were collected at the PSM TWG PSM Plug-In Workshop on 25 February, 2004.

1. Getting Started with PSM (Slide 1)

- 1) In the third bullet, it talks about the “nine best practices, called measurement principles”. What are they? They should be listed here or referenced.
- 2) “What is RUP?” section: Add “For more information about RUP, refer to the “Getting started with RUP” section.”
- 3) “Where do I start?”: Hyperlink to book reference or the PSM reference page.
- 4) “Where do I start?”: This references the PSM Guidebook. We should probably reference the PSM book instead of the guidebook to reduce confusion.
- 5) “Providing Feedback”: Feedback should be sent using comment form on the PSM Web site.

2. Overview

2.1 Concept: Practical Software & System Measurement (Slide 3)

- 1) The Additional PSM Resource link is broken.
- 2) “Characteristics of a PSM Project”: Characteristics listing is missing.
- 3) The “How to Get Started” section is empty.

2.2 PSM Key Concepts (Slide 4)

- 1) Any other key concepts we want to highlight? What about breaking out the Measurement Information Model and Measurement Process Model into their own concept pages instead of containing them in the Concepts: Measurement page? How about adding the Measurement Construct
- 2) If we break out, the order the concepts:
 - a) Measurement
 - b) Measurement Process Model
 - c) Integrated Analysis Model
 - d) Measurement Information Model. (Is this the same the Measurement Concept? Need to clarify with Cheryl.)

2.2.1 Concepts: Measurement (Slide 5)

- 1) If we have the new list of concepts, then we don’t need to have the MIM and MPM here.
- 2) Slide 8: MIM section is incomplete. Should it contain the Measurement Construct? Or break MC out in separate section.

2.3 PSM Guidelines (Slide 10)

- 1) Add “Guideline: Analysis Techniques” (summary of Chapter 5, PSM book)

2.3.1 Guidelines: Measurement (Slide 11)

- 1) Add risk measures to every phase
- 2) Consider adding program (executive level) measures like balanced scorecard.
- 3) Look at measurement at role level - best practices
- 4) Look into including s/w safety & security measures
- 5) Include process measurement methods and charts
- 6) Include steps on how to implement process
- 7) Add training measures (project-level measures)
- 8) Add reference to Integrated Analysis Model (talk a little about it)
- 9) Should sub-contract management be added to RUP (base) considering it is important in CMM?
- 10) Add risk management to measurable concepts or information categories
- 11) Add “number of configured items” to product size
- 12) Add process rating (project level)

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- 13) Consider adding fifth phase to RUP – Operation Phase
- 14) Slide 12: Add Requirement TBD's to Work Unit Progress
- 15) Slide 13: Drop Reference Maturing Rating from list since it's more of an executive-level measure and this table contains project-level measures
- 16) Slide 15: As a base measure, just looking Open & Closed Problem Reports really doesn't tell you much unless criteria are applied to the defect. Should criteria examples be included?
- 17) Slide 16: Define "task complete". Is the task closed and no further effort will be applied?
- 18) Slide 16: Add Requirements to Physical Size since every project regardless of size should develop and track reqts.
- 19) Slide 16: Explain criteria factor for Defects.
- 20) Slide 19: Requirements coverage is higher priority

2.4 PSM References (Slide 20)

- 1) Add relationship diagram and description between PSM and existing standards and model (CMMI).
- 2) Include 15939 title
- 3) Add ISO 9126 and 14598

2.5 Microsoft Word Templates for PSM (Slide 21)

2.6 Installing and Customizing Microsoft Word Templates for PSM (Slide 22)

3. Disciplines

3.1 Project Management: Overview (Slide 23)

3.1.1 Introduction to Project Management (Slide 24)

- 1) Replace 'metric' with 'measurement'
- 2) Add more info about measurement using PSM concepts and how it relates to project management.

3.1.2 Concepts

3.1.2.1 Concepts: Organizational Context for the RUP (Slide 26)

- 1) SEPA: Add something like "SEPA should use measurement to drive process improvement."
- 2) PRA: Add something like "Measurement should be used as much as possible to track progress, issues, improvements, etc."
- 3) SEEA: Add something like "Measurement should be used to track areas such as environment capacity, technology effectiveness, resource availability, etc."

3.1.2.2 Concepts: Risk (Slide 27)

- 1) Measurement should be used to track risk status (impact mitigation or elimination of risk).

3.1.3 Project Management: Workflow (Slide 28)

- 1) 2nd Paragraph: Add something about developing Measurement Plan
- 2) 3rd Paragraph: "The PM and MA should decide on information needs and the corresponding measurements."

3.1.3.1 Workflow Detail: Conceive New Project (Slide 30)

- 1) Add "Establish and Sustain Commitment" here? Or in "Plan the Project"?

3.1.3.2 Workflow Detail: Evaluate Project Scope and Risk (Slide 31)

3.1.3.3 Workflow Detail: Plan the Project (Slide 32)

- 1) Slide 33: Perhaps a blurb about "Establish and Sustain Commitment" here?

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3.1.3.4 Workflow Detail: Plan for Next Iteration (Slide 34)

3.1.3.5 Workflow Detail: Manage Iteration (Slide 36)

3.1.3.6 Workflow Detail: Monitor & Control Project (Slide 38)

3.1.3.7 Workflow Detail: Close-Out Phase (Slide 40)

- 1) Diagram: Project Measurements (artifact) should be input into this.
- 2) Project Measurements should be “required artifacts” in all of the milestones.

3.1.3.8 Workflow Detail: Close-Out Project (Slide 41)

- 1) Diagram: Project Measurements (artifact) should be input into this.

3.1.4 Project Management: Activity Overview (Slide 42)

3.1.5 Project Management: Artifact Overview (Slide 43)

- 1) Add Information Needs List to diagram.

3.1.6 Guidelines

3.1.6.1 Guidelines: Important Decisions in Project Management (Slide 44)

- 1) Slide 45: Add Information Needs List

3.2 Test: Overview (Slide 46)

3.2.1 Introduction to Test (Slide 47)

- 1) Slide 48, Relation to Other Disciplines: Add to PM: “Measurement should be performed during testing to measure test progress, test effectiveness, test coverage, and product quality.

3.2.2 Concepts

3.2.2.1 Concepts: Key Measures of Test (Slide 49)

- 1) What about Test Progress measures?

3.2.2.2 Concepts: Stages/Levels of Test (Slide 57)

3.2.3 Test: Workflow (Slide 59)

3.2.3.1 Workflow Detail: Define Evaluation Mission (Slide 60)

3.2.3.1.1 Concepts: Product Quality (Slide 61)

3.2.3.1.2 Concepts: Evaluating Quality (Slide 63)

3.2.3.1.3 Concepts: Measuring Quality (Slide 64)

- 1) Replace ‘metric’
- 2) Should point to PSM Plug-In’s “Concepts: Measurement” instead of base RUP’s “Concepts: Metrics”
- 3) Slide 65: All of the “Guideline: Metrics” links should be referencing the plug-in’s “Guideline: Measurement” instead.

3.2.3.2 Workflow Detail: Validate Build Stability (Slide 67)

3.2.3.2.1 Concepts: Test Automation and Tools (Slide 69)

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3.2.3.3 Workflow Detail: Test and Evaluate (Slide 70)

- 1) Add to diagram: Project Measurements input into Determine Test Results activity
- 2) The Change Request output from Determine Test Results should be Test Evaluation Summary instead.
- 3) Add to Description: Collect measures on test results to show progress.

3.2.3.4 Workflow Detail: Achieve Acceptable Mission (Slide 72)

- 1) Input to Assess and Improve Test Effort: Measurement Analysis and Recommendations
- 2) Add to diagram: Project Measurements input into Determine Test Results activity.

3.2.3.4.1 Concepts: Quality Dimensions (Slide 74)

3.2.3.5 Workflow Detail: Improve Test Assets (Slide 75)

3.2.4 Test Activities Overview (Slide 76)

3.2.5 Test Artifacts Overview (Slide 77)

4. Roles and Activities (Slide 78)

4.1 Project Manager (Slide 79)

- 1) It would be better if the structure of the diagram looks like the RUP base.
- 2) Slide 80: Related Information: Any other white papers we can include? Specifically on PSM topics? What about the “Safety and Security” white paper, the “Systems Interoperability” white paper, and the “OO Measurement” white paper? These are currently on the PSM Web site.

4.1.1 Concepts

4.1.1.1 Concepts: Estimating Project Effort (Slide 81)

- 1) What about content from the PSM book, Chapter 5.1 on Estimation?

4.1.2 Activity: Assess Iteration (Slide 82)

- 1) Replace ‘metrics’ with ‘measures’, e.g., “Collect Metrics”
- 2) Slide 83, “Collect metrics (measures)”: Consider updating with PSM guidelines

4.1.2.1 Guidelines: Reviews (Slide 86)

- 1) Track peer reviews through measurement.

4.1.3 Activity: Report Status (Slide 90)

- 1) Should there be any output artifact documenting the status? Mainly when the activity is intended to document the status? Something like: Status Assessment Report. [DI] If you look at the base RUP, the Report Status does have an output of Status Assessment Report. Consider adding this back into the plug-in.
- 2) Under “Role” What is “PSM Project Manager Assess (replacing contributor)”? What does the “replacing contributor” mean?
- 3) In Navigation tree, there are two Report Status nodes. The first Report Status is from the base RUP and should not be shown in the tree. The second one is from the PSM Plug-In.
- 4) Slide 91: Align what’s listed here with what is listed in the Guidelines: Measurement.

4.1.4 Activity: Define Monitoring & Control Processes (Slide 92)

- 1) Replace ‘metrics’
- 2) The definition of “project indicator” seems to be different from PSM’s definition of indicator.

4.1.4.1.1 Guidelines: Measurement (Slide 94)

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4.1.5 Activity: Develop Quality Assurance Plan (Slide 105)

4.1.6 Activity: Compile Software Development Plan (Slide 107)

4.1.7 Activity: Develop Measurement Plan (Slide 109)

- 1) Navigation Tree: The first “Develop Measurement Plan” is from the base RUP. It should not show up in the tree.
- 2) OK, but shouldn’t we include Measurement Analyst, together with Project Manager, in Role section as the preparation of the resulting artifact “Measurement Plan” is shared with Measurement Analyst? [DI] There is a RUP limitation in that an activity can only belong to a single role.
- 3) What is “Project Manager Pln (replaces contributor)”?
- 4) Shouldn’t we include the “Project Measurements” artifact as a resulting artifact from this activity?

4.1.8 Activity: Monitor Project Status (Slide 114)

- 1) Navigation tree: The first Monitor Status is from base RUP and should not be shown in the tree.
- 2) Do we need this activity? Seems like it could be the same as the “Perform” and “Evaluate Measurement” activities. However, perhaps for the PM role, you may still want to “Monitor Project Status”. We need to define what’s in this activity.
- 3) Slide 115: Keep this with PM’s “Monitor Project Status”.
- 4) Slide 115: PM should continuously review measures to ensure they satisfy their information needs.

4.2 Measurement Analyst (Slide 116)

[AM] Put activities in the following order: Plan M., Perform M., Evaluate M. [DI] Yes, would be nice, but not sure we can control the order.

4.2.1 Activity: Plan Measurement (Slide 118)

- 1) I miss the Measurement Plan as output artifact although this artifact is an output from Develop Measurement Plan activity. But, in paragraph “Documenting the Project Measurement Plan” it is said: “the final task of the planning process is documenting the project Measurement Plan”, so I think that it could be misunderstood that only Measurement Specification is produced by this activity.
- 2) Is Measurement Specification the same as Measurement Information Specification?
- 3) Slide 121: Keep table in “Selecting the Applicable Measures” consistent with the Guidelines: Measurement.

4.2.2 Activity: Perform Measurement (Slide 127)

4.2.3 Activity: Evaluate Measurement (Slide 138)

- 1) Need input artifact to the activity: “Measurement Analysis and Recommendations” artifact.
- 2) As resulting artifact, this activity shall provide: “Measurement Evaluation Report” (as stated in the first paragraph under the Evaluate the Measures step). This artifact needs to be defined (new) or maybe it’s the same as Measurement Analysis and Recommendations.
- 3) Naming of step “Evaluate Measures” is not the same. Should be “Evaluate the Measures”.
- 4)

4.3 Test Manager (Slide 141)

4.3.1 Activity: Assess and Advocate Quality (Slide 143)

4.3.2 Assess and Improve Test Effort (Slide 147)

- 1) Navigation tree: The first Assess and Improve Test Effort is obsolete. The second one should replace the first.
- 2) Add to Input Artifact: Test Assessment Summary (draft)
- 3) Add to Output Artifact: Test Assessment Summary (baseline)
- 4) Remove Measurement Analysis and Recommendation from Output Artifact

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5. Artifacts (Slide 150)

5.1 PSM Artifacts (Slide 151)

5.1.1 Artifact: Measurement Plan (Slide 152)

- 1) Duplicate links in Input and Output. Should only reference PSM content.
- 2) Slide 153: “The Measurement Analyst role collaborates with the Measurement Analyst role...” This looks like a problem in the model?

5.1.1.1 Template: Measurement Plan (Slide 154)

5.1.2 Artifact: Information Needs List (Slide 156)

5.1.3 Artifact: Measurement Specification (Slide 158)

- 1) Consider updating the “Measurement Specification” to “Measurement Information Specification”. I believe the latter is the latest term used.
- 2) There should be some Input to Activities listed.

5.1.3.1 Template: Measurement Information Specification (Slide 160)

5.1.4 Artifact: Project Measurements (Slide 166)

- 1) Artifact is more a resulting artifact from activity “Plan Measurement” than from “Monitor Project Status”
- 2) Duplicate references in Input and Output.

5.1.5 Artifact: Measurement Analysis and Recommendations (Slide 168)

- 1) Add Evaluate Measurement” to Input to Activities
- 2) Remove Assess and Improve Test Effort from Output list.

6. PSM Resource Center (Slide 170)

7. What’s New in the PSM Plug-In (Slide 171)

8. About the PSM Plug-In (Slide 172)

9. PSM Roles and Activities (Slide 173)

- 1) Why is Project Manager listed here? Maybe we should clarify that PM is not a new PSM role, but an existing RUP role that’s modified?
- 2) The definition here is definition of RUP and not the PSM roles and activities.