Appraisal Program Quality Report

Software Engineering Institute Carnegie Mellon University Pittsburgh, PA 15213

Will Hayes November, 2007

Contents / Agenda

Required Use of SEI Appraisal System

- Advance Setup Requirements
- Timely Closure Requirements

High Maturity Appraisals

- Certification Requirements
- Reporting Requirements
- Auditing and Data Analysis

Questions and Answers

- Managing Conflict of Interest
- On Site Appraisal Auditing
- Continuing Professional Education

SEI Appraisal System: *Expectations for Usage*

Required Use of SEI Appraisal System

Recent Policy Announcement

- All SCAMPI appraisals must be setup in advance of Phase II (Onsite)
 - Specified items from Appraisal Input 30 days in advance
 - Remaining items from Appraisal Input 7 days in advance
 - All elements of the Appraisal Plan 1 day in advance
- Business cycles are sometimes shorter than 30 days
 - Exceptions will be handled routinely
 - These are not waivers, but expected occurrences
 - Exceptions are not intended to be the norm
 - Discussing how to handle this within SAS, rather than email.

Required Use of SEI Appraisal System₂

Constructive Feedback We've Received

- Concern about limited value for <u>requiring</u> B&C setup in advance
 - We agree, this does seem excessive we will change it
- Wording of the communication is needlessly overly complex
 - "... no later than 30 days prior to the start of ..."
 - Simpler to say "... at least 30 days prior ..."
- The policy does not address closure of SAS records in a timely way
 - Contract language says all data must be submitted within 30 days
 - We will require complete SAS record within 30 days of the end of phase II (onsite)

Required Use of SEI Appraisal System₃

What About SEI Response Time?

- We are committed to make a determination within 30 days
 - The quality review clock starts when the LA has successfully hit the "submit button" – all required fields are complete
 - Within 30 days we will report either:
 - The SAS record has passed our quality review
 - There is an issue that requires attention from the LA
 - The routine things take less than 30 days
 - Appraisal program manager is tracking this cycle time
- Most LAs are very timely in their responses to our follow-ups

High Maturity Appraisals: Certification, Reporting and Auditing

Certification

A Maturing Profession

- We want to protect your investment, and the investment of many others
- Raising the floor, not pushing the envelope
 - Base all appraisals outcomes on common criteria
 - Assure that organizations realize intended benefits
 - Improving the engineering practice is our mission

Confluence of Many Stakeholder Voices

- SEI is balancing many legitimate inputs
 - Optimal technical solutions are not always obvious to everyone
 - We are working to be inclusive, and many have contributed
 - Valuable advice and technical input received at every step

Reporting High Maturity Appraisals

Increase Confidence in Reported Results

- Requiring supplemental information increases transparency
- Transparency serves people operating in good faith the most

Compliance to Reporting Requirements Has Been an Issue

- Not every LA seems to be aware of the specific requirements
- Motivation behind requirements may not be obvious to some

We are working on this to make it easier for all parties, and to better achieve our objective.

Reporting High Maturity Appraisals₂

The Stated Requirements:

SCAMPI Method Definition Document – Page II-119 (3.1.1 Parameters & Limits)

If the appraisal resulted in capability or maturity level 4 or 5 ratings, the organizational processes or subprocesses and the corresponding PAs that were determined to be under statistical control must be included in the final findings.

SCAMPI Method Definition Document – Page II-130 (3.2.2 Parameters & Limits)

For high maturity appraisals (capability or maturity level 4 or 5), the appraisal team leader must validate that a substantial portion of the organization's and projects' quality and process-performance objectives and statistically managed subprocesses can be mapped directly to and support: (1) the established business objectives as stated and disseminated to key employees of the organization, and (2) the needs and priorities of customers, end users, and other stakeholders. This validation is required to prevent the granting of high maturity ratings for trivial improvements.

Reporting High Maturity Appraisals₃

Appendix A: Appraisal Disclosure Statement Template:

Additional Information for Appraisals Resulting in Capability or Maturity Level 4 or 5 Ratings

Describe which processes or subprocesses are under statistical management and were included in the objective evidence for this appraisal. Also list the PA(s) and organizational quality and process-performance objective(s) these processes or subprocesses pertain to.

Process/Subprocess	Process Area(s)	Quality/Process Performance Objective(s)

Reporting High Maturity Appraisals₄

SAS User's Guide, Page 11:

Beneath the model display, you will see fields to enter the Assigned Maturity Level. If you are assigning a Maturity Level 4 or 5, there is a comment box provided for your description of the critical subprocesses under statistical management that have earned this rating.

Describe which processes or subprocesses are under statistical management and were included in the objective evidence for this appraisal. Also list the PA(s) and organizational quality and process-performance objective(s) these processes or subprocesses pertain to.

An acceptable response in this field will identify the following:

- The process/subprocess being statistically managed
- The process area(s) quality/process
- The performance objectives being met
- * QUALITY NOTE: * The data input into the SAS record will be displayed exactly as entered on the ADS and on the PARS website. Entering references to the Plan or other submitted artifacts will not present your appraisal data in a positive way. It will be questioned during our Quality review and will require the appraisal to be reopened for you to correct the data.

Reporting High Maturity Appraisals₅

Three Items of Information Are Required

- Subprocess
- Process area
- Goal served through statistical management of the subprocesses

Serving Business Goals is the Most Important Thing

- The motivation for asking is to assure that 'trivial' applications of statistical techniques are not accepted as evidence
 - The intent is to rigorously manage the things that have impact
 - Level 4 is not about analysis of large amounts of data
 - Level 5 is not about 'one-off' six sigma projects

Reporting High Maturity Appraisals₅

Common Issues Encountered:

- No mention of subprocesses
- No mention of business goals
- No mention of process areas
- Very high-level goals mentioned
- Providing just a list of measures or analyses
- Very large amount of information, often relating to other topics
 - Process Performance Baselines
 - Process Performance Models
 - History of process improvement

Questions and Answers:

Questions Receiving Attention Answers Being Developed

Managing Potential Conflicts of Interest

Some Things Are Very Clear

- "Do not appraise your own work"
- Authoring the process means you can't appraise it

Where is the Boundary?

- How much coaching do you have to do before you cross the line?
- How much training is too much to maintain objectivity?
- Can we really maintain an objective view if we do a series of informal appraisals leading up to the benchmarking appraisal?
- Is it acceptable to be a team member on an A where you've consulted?

SEI Policy Will Be Enhanced

On-Site Auditing – Increasing Level of Activity

SEI Auditing Program is About to Expand

- We are hiring new senior level staff
- We are budgeting for more on-site audits

Good Experience To Date

- Mentoring-focused audits have been well received
 - Helping Lead Appraisers to see improvement opportunities
 - We were received in the spirit of improvement
- Site visits following appraisals are very challenging

Audits Will Now be "Real Time" During Appraisal Events

- Random as well as event-driven audits will be done
- The goal is to assure quality practices not to mentor, per. se.

Continuing Professional Education

Maintaining Authorization and Certification is Important

- A maturing profession requires a focus on competencies
 - SLA-BOK work has been very well received
 - CLF calls out a lifecycle of developing competencies
 - This lifecycle does not end when certification is achieved
 - Maintaining credentials must be an active process
 - Developing deeper capabilities are required

SEI Work Continues Under the Leadership of Steve Masters

New Member of Our Team

A new member has joined the Appraisal Program Quality Team

- This person is charged with helping to bring continuity and consistency to the processes we use, and to the workload we manage.
- An advocate for effective communications among stakeholders in the process – SEI staff, as well as Partners and Lead Appraisers.
- We are pleased to welcome

Darlene Moore

dmoore@sei.cmu.edu

