

CMMI 1.3 CHANGES

By Neil Potter and Mary Sakry

Introduction

The new CMMI 1.3 models are out. In this newsletter we will take a look at what has changed and how you need to prepare for any future appraisal. The article is divided into four main sections covering the changes for CMMI 1.3 DEV, CMMI 1.3 SVC, high maturity and SCAMPI 1.3. We do not cover the Acquisition model.

CMMI 1.3 DEV changes

The practices in Maturity Levels (ML) 2 and 3 have not substantially changed. The majority of the changes are primarily grammatical improvements. Changes of substance are:

- Two practices from SAM have been deleted that referred to monitoring a supplier's processes and work products. Feedback had been given to SEI that some supplier relationships don't allow for such detailed monitoring. However, we recommend that wherever you can, monitoring supplier performance early in a project can show you issues to address while they are still small and there is time to recover.
- The optional Specific Goals of Integrated Product and Process Development (IPPD) have been deleted and replaced with two new practices, one on team formation in Organizational Process Definition (OPD) and a related practice in Integrated Project Management (IPM). These are not optional any more and will require some work, depending on the complexity of the teams you have.
- Generic Practice (GP) 3.2 has been rewritten to be less cumbersome by pushing the words, "measurement, measurement results and example

work products," down to the informative text.

This makes the practice a little easier to implement since the expectation for some type of (useful) measure per PA (or related process) has been replaced with "process-related experiences." The CMMI defines this as:

"Including information and artifacts derived from planning and performing the process. Examples of process-related experiences include work products, measures, measurement results, lessons learned, and process improvement suggestions."

A discussion on GP 3.2 example measures (based on CMMI 1.2) is given in one of our previous tidbit articles (#4) at <http://www.processgroup.com/monthlytidbits.html>

- GP 2.8: Some appraisers (not Mary or Neil!) have insisted that GP 2.8, "Monitor the process," must be a measure since the informative text said so. The informative text now says, "The purpose of this generic practice is to perform the direct day-to-day monitoring and controlling of the process. Appropriate visibility into the process is maintained so that appropriate corrective action can be taken when necessary. Monitoring and controlling the process can involve measuring appropriate attributes of the process or work products produced by the process."

In the tables below we list all of the changes to the ML 2 and 3 practices. We have excluded practices that only had grammatical changes. A reference is also provided to the complete file showing all the goal and practice changes in Levels 2 and 3, and a (large) file from SEI showing all of the informative text changes.

¹ <http://www.sei.cmu.edu/cmmi/tools/cmmiv1-3/>

CMMI 1.3 SVC changes

The primary change in 1.3 is the replacement of the word "project" by the word "work." This makes the model more readable since in a services organization the work is usually continuous, rather than organized in discrete projects with a beginning and end.

The other changes are minor and don't address many of the issues Neil has had specifically at Maturity Level 2, where the PA practices are unmodified from the DEV model, making them harder to understand (without translation) for a services group.

All of the practices that changed in Maturity Levels 2 and 3 are listed in a summary file at the URL on page 3.

High maturity changes

The main motivation of CMMI 1.3 was to be clearer about the expectations of Levels 4 and 5. Rewriting the informative text and deleting Generic Goals (GG) 4 and 5 from each PA has addressed this.

- GG 4 + 5: These generic goals were in CMMI 1.2 for every PA to allow organizations to take selected PAs to higher capability levels. However, taking PAs such as Risk Management, Organizational Process Performance and Quantitative Project Management to levels 4 or 5 made little sense, or was straight-out impossible. (No one is going to place the process of organizational process performance under statistical control.)

In CMMI 1.3, a specific process can now be improved to level 4 or 5 by applying the PAs of level 4 (or 5) to that process. This has always been the case in the staged model, but was less clear in the continuous model.

- Organizational Performance Management (OPM) has replaced Organizational Innovation and Deployment (OID). The changes clarify that improvements at Level 5 are based on statistical and quantitative management practices achieved at Level 4. This has always been the case, but not clearly articulated in the model. Read the official SEI change document or final version of CMMI to see the changes.

SCAMPI 1.3 potential changes

The new SCAMPI appraisal process is not yet out. It is due January 2011. Here are some of the likely changes based on SEI presentations in October:

- Project selection: There will be a new method of selecting projects to appraise. This will be some type



of statistical tool used by appraisers to select a representative sample of projects based on characteristics regarding the type of work being performed and the size of the organization. This should not be a big change for any good appraiser, who has been using judgment to select representative samples. The change, it is hoped, will improve general appraisal accuracy where 1,000-person organizations submit their three best projects for an appraisal. The details of this new selection process are still being worked by SEI. The old terms of focus and non-focus projects have been removed from the method.

- The requirement for "direct" and "indirect" artifacts will be removed. Instead, there will be rules stating the appropriate evidence needed to be collected in the appraisal to represent the population. In essence, it will be the same as we have now, that is, written and verbal evidence of the practices.
- The lead appraiser's experience may no longer count in calculating the experience of the team. This may be an issue for some organizations, particularly when working with new hires on the appraisal team.
- Each SCAMPI Class A appraisal will require a fee to be paid to SEI (through the vendor). The fee was initially set at \$1,000 per appraisal, but the price is being reviewed and will be officially decided and implemented March 15th, 2011.

Transition dates and upgrade requirements for appraisal teams

- The transition date when organizations must use SCAMPI and CMMI 1.3 is December 1, 2011. Current CMMI 1.2 appraisal results are still valid for three years from their appraisal date.
- Appraisal teams using CMMI 1.3 Level 2 and 3 will not need to take the upgrade training from 1.2 to 1.3; only the lead appraiser will. There will probably be an expectation for lead appraisers to brief their teams in the SCAMPI and CMMI 1.3 changes, but this has not been defined yet. Level 4 and 5 teams will need to take the upgrade class, which will be offered, online (and via the appraiser) December 17, 2011.

SUMMARY FILES SHOWING ALL CHANGES IN DEV and SVC

<http://www.processgroup.com/cmml1p3-changes.html>

DEV PRACTICES THAT HAVE CHANGED (red = deleted, blue = added)

Supplier Agreement Management

SG 2	Agreements with the suppliers are satisfied by both the project and the supplier.	
	SP 2.2	Select, monitor, and analyze processes used by the supplier.
	SP 2.3	Select and evaluate work products from the supplier of custom-made products.

GP 3.2

GP 3.2	Collect work products, measures, measurement results, and improvement information <u>process-related experiences</u> derived from planning and performing the requirements management process to support the future use and improvement of the organization's processes and process assets.
--------	---

Requirements Development

SG 3	The requirements are analyzed and validated. , and a definition of required functionality is developed.	
	SP 3.2	Establish and maintain a definition of required functionality <u>and quality attributes</u> .

Product Integration

The purpose of Product Integration (PI) is to assemble the product from the product components, ensure that the product, as integrated, ~~functions behaves~~ properly (i.e., possesses the required functionality and quality attributes), and deliver the product.

	SP 1.1	Determine the product component integration sequence. <u>Establish and maintain a product integration strategy.</u>
--	--------	--

Organizational Process Definition

The purpose of Organizational Process Definition (OPD) is to establish and maintain a usable set of organizational process assets ~~and~~, work environment standards, and rules and guidelines for teams.

	<u>SP 1.7</u>	<u>Establish and maintain organizational rules and guidelines for the structure, formation, and operation of teams.</u>
--	---------------	---

Integrated Project Management

	<u>SP 1.6</u>	<u>Establish and maintain teams.</u>
--	---------------	--------------------------------------

Practical Solutions for Your Project Challenges

Webinar-style sessions to save on travel, or onsite coaching to save on time.

- ❑ **Run your software development projects faster and incrementally.**
Two-day workshop, AGILE SOFTWARE DEVELOPMENT (SCRUM).
- ❑ **Achieve more with your time. Make your staff more productive.**
One-day workshop, TIME MANAGEMENT.
- ❑ **Understand how to save money, produce more and work faster.**
Two-day workshop, DOING MORE FOR LESS.
- ❑ **Understand customer needs. Clarify product requirements early.**
Two-day workshop, IN SEARCH OF EXCELLENT REQUIREMENTS.
- ❑ **Manage projects effectively. Meet project deadlines and reduce risks.**
Three-day workshop, PROJECT PLANNING AND MANAGEMENT.
- ❑ **Meet project deadlines. Scope and estimate the project work.**
One-day workshop, PROJECT ESTIMATION.
- ❑ **Avoid schedule delays caused by needless product rework. Find defects rapidly.**
Two-day workshop, INSPECTION (PEER REVIEWS).
- ❑ **Hands-on SEI CMMI. Perform a CMMI gap-analysis.**
The following workshops are available:
 - CMMI-DEV: Overview (1/2 day), LEVEL 2 (1 day), LEVEL 3 (2 days), INTRO TO CMMI-DEV (3 days).
 - CMMI-SVC: INTRO (3 days), Supplement class (1 day), LEVEL 2 (1 day).
- ❑ **Identify critical changes to improve organizational results. Benchmark against the CMMI.**
A PROCESS APPRAISAL examines your organization's engineering and management practices and generates a focused list of strengths and critical areas for improvement. Our SEI-authorized Lead Appraisers conduct customized CMMI-based appraisals.
- ❑ **Clarify and refine business/project measures and analysis.**
One-day workshop, MEASUREMENT AND ANALYSIS.
- ❑ **Systematically evaluate decision alternatives.**
Half-day workshop, DECISION ANALYSIS AND RESOLUTION.
- ❑ **Goal/problem-based improvement.**
Two-day workshop, MAKING PROCESS IMPROVEMENT WORK.
- ❑ **Manage your suppliers.**
One and one-half-day workshop, SUPPLIER MANAGEMENT.
- ❑ **Tailored assistance. Dedicated phone-based assistance.**
This service consists of customized education and coaching on your specific problems (e.g., meeting deadlines, quality and cultural change).

Detailed information is available at www.processgroup.com/services.html. Contact us at **972-418-9541** or help@processgroup.com to discuss your needs.

Read Our Book!

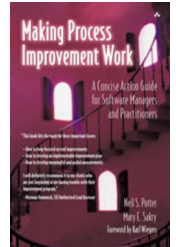
Also available in Chinese and Japanese.
See www.processgroup.com/book.html

Here is the book's Table of Contents:

Foreword by Karl Wieggers

Preface

Acknowledgments



Chapter 1. Developing a Plan

- Scope the Improvement
- Develop an Action Plan
- Determine Risks and Plan to Mitigate
- Chapter Summary

Chapter 2. Implementing the Plan

- Sell Solutions Based on Need
- Work with the Willing and Needy First
- Keep Focused on the Goals and Problems
- Align the Behaviors of Managers and Practitioners
- Chapter Summary

Chapter 3. Checking Progress

- Are We Making Progress on the Goals?
- Are We Making Progress on our Improvement Plan?
- Are We Making Progress on the Improvement Framework?
- What Lessons Have We Learned So Far?
- Chapter Summary

Conclusion

Appendices

References

The Process Group

Telephone: 972-418-9541

Fax: 866-526-4645

E-mail: help@processgroup.com

Web: www.processgroup.com

POST back issues are on line