The Secrets of SCAMPI Appraisals!

Jeff Dalton, President
Broadsword, an SEI Partner
SCAMPI Lead Appraiser
CMMI Instructor
Agile Envangelist
ScrumMaster

Visit “AskTheCMMIAppraiser.com
Welcome back my friends . . . to the show that never ends!

Jeff Dalton
President of Broadsword
Certified Lead Appraiser
Certified CMMI Instructor
Co-Chair of the SEI Partner Board
Author of AgileCMMI Methodology

http://www.askTheCMMIAppraiser.com

CMMIAppraiser on Twitter

“You cut through the noise and get us to the solution”
- Client who named our company “Broadsword.”
Participate! Ask questions! Make comments!

Actually, your phone is *muted*, because 100 people talking at once is annoying.

Attendee names are hidden to protect your privacy. You are not alone!

You can ask questions on my blog [http://asktheCMMIAppraiser.com](http://asktheCMMIAppraiser.com) and I’ll answer within 24 hours.
Welcome!

Join us on the Path to Greatness

Appraisals – Training – Consulting – Accelerators

The full presentation will be available on our website at:

http://www.broadswordsolutions.com/resources
We are focusing on what you NEED to know!

A 2-hour webinar not an effective substitute for Appraisal Team Training or being on a team!
• A Little about CMMI
• SCAMPI Method
• Planning an Appraisal
• Sampling Rules and Data Sufficiency
• Interviews
• Tips for successful appraisals
• Wrap up
I’ve heard CMMI is only for huge companies

Organization Size
Based on the total number of employees within the area of the organization that was appraised

- 1 to 100: 61.4%
- 101 to 200: 16.9%
- 201 to 200+: 21.7%
- 501 to 1000: 4.7%
- 1001 to 2000: 2.3%
- 2000+: 1.6%
- 25 or fewer: 18.0%
- 26 to 50: 22.7%
- 76 to 100: 8.0%
- 51 to 75: 12.7%
- 301 to 500: 5.9%
- 201 to 300: 7.1%

Based on 5301 organizations reporting size data
What Maturity Level are most companies?

Maturity Profile by All Reporting Organizations in the USA

Based on 1287 organizations in the USA
Can we get to ML3 by Tuesday?

Time to Move Up

Number of months to move to next maturity level

- 75th Percentile
- Median
- 25th Percentile

Time Period of Initial Appraisal
- 1 to 2
- 2 to 3
- 3 to 4
- 3 to 5

Orgs
- 7
- 227
- 50
- 46
CMMI v1.3 Upgrade Timeline

November 2010
CMMI v1.3 is Released
You can conduct either a CMMI v1.2 OR v1.3 Appraisal using SCAMPI v1.2

March 2011
SCAMPI v1.3 Is Released
You can conduct either a CMMI v1.2 OR v1.3 Appraisal using SCAMPI v1.2 OR SCAMPI v1.3
(just to keep it simple)

November 2011
CMMI v1.2 is toast!
You can conduct ONLY a CMMI v1.3 Appraisal using EITHER SCAMPI v1.2 OR SCAMPI v1.3

March 2012
SCAMPI v1.3 Follows
Finally! Everything is in Harmony!
CMMI and SCAMPI = v1.3
So, c’mon Jeff, what are the secrets of a SCAMPI Appraisal?

I’m busy here!
What is a SCAMPI? Is it an Audit?

One time I followed a Lead Appraiser that insisted on seeing a work product for each Practice . . .

Each SUB Practice! Ahhhhhhh!

ATM’s worked 12-14 hour days all week!

It drove all the wrong behaviors, wasted money, and made them hate CMMI!
But what is it really? Is it an Exam?

I followed another Lead Appraiser that tested each practitioner by having them recite the Generic Practices...

Backwards!

Ouch!

Talk about looking for data in all the wrong places!
It’s really about LEARNING about ourselves

“Wow! We Planned and that project turned out to be faster! AWWWESOME!”
SCAMPI v1.3

Standard

CMMI

Appraisal

Method for

Process

Improvement

CMMI + Sampling and Data sufficiency rules

Appraisal Requirements

Appraisal Team

Actual Practice

Findings, Recommendations

Organizational Process Suite

Lessons Learned/Improvements

Process Deployment

Organization/Projects

SEIPartner

Broadsword
“Throughout our history with CMMI, we have been challenged by the tension between a process compliance mentality versus the “other view” that this should always be about process improvement.

I hope that we have recognized that we create appraisal teams with the consensus theme so that judgment can occur, often with significant debates. If instead the exercise becomes a ritual of filling boxes with checkmarks, we might wish to change to automated decision tools to save money and ‘get a level.’”

Mike Phillips, CMMI Program Director
Appraisal Fundamentals

- Start with a process reference model
- Use a defined appraisal method
- Involve senior management as an appraisal sponsor
- Observe non-attribution
- Approach the appraisal collaboratively
Pick a Representation and Level

5. Focus on process improvement

4. Process measured and controlled

3. Process characterized for the organization and is proactive

2. Process characterized for projects and is often reactive

1. Process unpredictable, poorly controlled and reactive

Optimizing

Quantitatively Managed

Defined

Managed

Performed

SEI Partner

Broadsword

CMMI
## Staged Representation: CMMI-DEV

<table>
<thead>
<tr>
<th>Level</th>
<th>Focus</th>
<th>Process Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Optimizing</td>
<td>Continuous Process Improvement</td>
<td>• Organizational Performance Management • Casual Analysis &amp; Resolution</td>
</tr>
<tr>
<td>4 Quantitatively Managed</td>
<td>Quantitative Management</td>
<td>• Organizational Process Performance • Quantitative Project Management</td>
</tr>
<tr>
<td>3 Defined</td>
<td>Process Standardization</td>
<td>• Requirements Development • Technical Solutions • Product Integration • Verification • Validation • <strong>Organizational Process Focus</strong></td>
</tr>
<tr>
<td>2 Managed</td>
<td>Basic Project Management</td>
<td>• Requirements Management • Project Planning • Project Monitoring &amp; Control • Supplier Agreement Management</td>
</tr>
<tr>
<td>1 Initial</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Determine Class of Appraisal

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount of objective evidence gathered</strong></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td><em>(relative)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ratings generated</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Resource needs</strong></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td><em>(relative)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Team size</strong></td>
<td>Large</td>
<td>Medium</td>
<td>Small</td>
</tr>
<tr>
<td><em>(relative)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appraisal Team Leader Requirements</strong></td>
<td>Lead Appraiser</td>
<td>Lead Appraiser or B/C Team Leader</td>
<td>Lead Appraiser or B/C Team Leader</td>
</tr>
</tbody>
</table>
Verify performance at the Practice Level
SCAMPI Appraisal Team Fundamentals

Fairly & honestly appraise process performance using CMMI as a benchmark

• Take opinions into consideration **ONLY** when debating the Objective Evidence and its relevance to CMMI
• Do not judge or audit work performance

Make positive observations

• Classify observations as areas of “strength” or areas of “weakness”
• Do not classify anything (observations, performance, etc.) as “good” or “bad”
• Remember, there is no “passing” of “failing”

Maintain confidentiality

• Do not attribute comments or “weaknesses” to any individual or team
• Destroy detailed notes about interviews once the findings have been completed
• Do not reveal the status of any interviews or findings until they are complete

Have fun!

• Remember, this work is contributing to the improvement of the work environment
• Consider participation as a career enhancement for the whole team
• Strive to work normal hours
• Good humor is mandatory and must be enforced!
<table>
<thead>
<tr>
<th>SCAMPI Appraisal Activities (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month 1</strong></td>
</tr>
</tbody>
</table>
| Plan, Prepare, and Train | | D1  
| Obtain & Examine Artifacts | | D2  
| Participants Briefing | | D3  
| Conduct Interviews | | D4  
| Consolidate & Analyze Data | | D5  
| Prepare Findings | | D6  
| Validate Findings | | D7  
| PA/Goal Findings | |    |
| Present Results | |    |
Introduction of Standard (Required) Sampling Factors:

- Location – Where is the work being performed?
- Customer – Who is it being performed for?
- Funding Source – Who is funding the work?
- Management Structure – Who leads what work?
- Type of Work being Performed – Software, engineering?

These factors will determine the “Sub Groups” that are part of the sample. Think of these as “virtual divisions” or the Organizational Unit.
Sampling Factors (example)

Each of these examples is a “sub group” and each has within it “basic units.” Think of basic units as Projects or support groups (like SEPG or CM teams).

Still with me?
The “three project minimum” rule is gone forever….  

<table>
<thead>
<tr>
<th>Minimum number of Basic Units to be selected from a given subgroup (2)</th>
<th>Number of Subgroups (5)</th>
<th>Number of Basic units in a given Subgroups (8)</th>
<th>Total number of Basic Units (19)</th>
</tr>
</thead>
</table>

This is very bad news for **professional level-seekers**. You know who you are!
Then add in “Data Sufficiency” rules

Some projects in each sub-group need to be evaluated “end-to-end.”

• All relevant Process Areas

Some need to be sampled across Process Areas

• Select one or more Process Areas to evaluate on multiple projects

“Focus” and “non-Focus” Projects are no longer part of SCAMPI

This increases the sample size and will make it impossible for our certificate-waving friends to sample 4% of their company and say they are Maturity Level Five (and yes, you should be ashamed).
Other new Features of SCAMPI

Planning

- Data collection planning is now required
- New Data Sufficiency rules to replace “Focus” and “non-Focus” concepts
- All teams must be trained for EACH appraisal
- Team must meet at least ONCE before each appraisal
- Experience requirement excludes Lead Appraiser!
- Plan and submit to appraisal record to SAS at LEAST 30 days in advance*
- Lead Appraisers can only perform 3 SCAMPI A’s per quarter*

Evidence

- Indirect and Direct Evidence is OUT! Whooo hooo! Oh wait.
- Now we have just “Artifact” and “Affirmation.”

*these were actually slip-streamed into v1.2 in 2010.
What to Expect at the Appraisal

Documents

Affirmations

Presentations
# Appraisal Interviews

## Project Interviews

- Project Manager (and other project team members, as necessary)
- One or more 60-90 minute interviews
- Specific questions focused on the project and all process areas under appraisal
- Specific responses to verify process adoption at the **project** level

## Functional Area Representative (FAR) Interviews

- Teams of practitioners in similar roles:
  - Project Managers (5-10)
  - Engineers/Developers (5-10)
  - Line Managers
  - Sponsor(s)
  - Requirements/Test (5-10)
- One or more 60-90 minute interviews
- Broad questions focused on roles and associated responsibilities
- General responses, not project specific, to verify process adoption at the **organizational** level

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[SEI Partner CMMI]

[Broadsword]
Appraisal Interview *Do’s*...

- Think through how you perform a process and describe it from beginning to end
- Use your methodology as the framework for your answer
- Ask clarifying questions--the terminology may be different from what you are used to
- Refer the appraiser to someone who might know the answer if you don’t
Ex: Possible Objective Evidence

PP SP1.1-1:

Indirect artifacts*:
- meeting minutes
- team charter
- WBS development notes

Direct artifacts*:
- top-level workplan
- task descriptions
- work package descriptions

Establish a top-level work breakdown structure (WBS) to estimate the scope of the project.

* SCAMPI v1.3 requires only “Artifacts” but the content of those artifacts must support process performance. Thus, not much changed!

Affirmations:
- “I worked on the PM team”
- “We used a workplan”
### Characterizing Practice Implementation

<table>
<thead>
<tr>
<th>Implementation Characterization</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Fully Implemented (FI)**      | • Artifacts present and appropriate  
• Supported by affirmation  
• No weaknesses noted |
| **Largely Implemented (LI)**    | • Artifacts present and appropriate  
• Supported by affirmation  
• One or more weaknesses noted |
| **Partially Implemented (PI)**  | • Artifacts absent or judged inadequate  
• Artifacts or affirmations indicate some aspects of the practice are implemented  
• One or more weaknesses noted |
| **Not Implemented (NI)**        | • Any situation not covered by above |
### Project Planning SG 1 encompasses 4 Specific Practices (SPs)

<table>
<thead>
<tr>
<th>SP 1.1</th>
<th>Proj 1</th>
<th>Proj 2</th>
<th>Proj 3</th>
<th>Proj 4</th>
<th>Rollup</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>LI</td>
<td>LI</td>
<td>FI</td>
<td></td>
<td>LI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SP 1.2</th>
<th>Proj 1</th>
<th>Proj 2</th>
<th>Proj 3</th>
<th>Proj 4</th>
<th>Rollup</th>
</tr>
</thead>
<tbody>
<tr>
<td>NI</td>
<td>FI</td>
<td>FI</td>
<td>FI</td>
<td></td>
<td>NI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SP 1.3</th>
<th>Proj 1</th>
<th>Proj 2</th>
<th>Proj 3</th>
<th>Proj 4</th>
<th>Rollup</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>LI</td>
<td>FI</td>
<td>FI</td>
<td></td>
<td>PI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SP 1.4</th>
<th>Proj 1</th>
<th>Proj 2</th>
<th>Proj 3</th>
<th>Proj 4</th>
<th>Rollup</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI</td>
<td>FI</td>
<td>FI</td>
<td>FI</td>
<td></td>
<td>FI</td>
</tr>
</tbody>
</table>

Project Planning SG 1 is **NOT Satisfied**
### Example: Results of a SCAMPI Appraisal

<table>
<thead>
<tr>
<th>Area</th>
<th>Standard Group (SG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements Management (REQM)</td>
<td>SG1: Manage Requirements</td>
</tr>
<tr>
<td>Project Planning (PP)</td>
<td>SG1: Establish Estimates</td>
</tr>
<tr>
<td></td>
<td>SG2: Develop a Project Plan</td>
</tr>
<tr>
<td></td>
<td>SG3: Obtain Commitment to the Plan</td>
</tr>
<tr>
<td>Project Monitoring &amp; Control (PMC)</td>
<td>SG1: Monitor Project Against Plan</td>
</tr>
<tr>
<td></td>
<td>SG2: Manage Corrective Action to Closure</td>
</tr>
<tr>
<td>Measurement &amp; Analysis (MA)</td>
<td>SG1: Align Measurement and Analysis Activities</td>
</tr>
<tr>
<td></td>
<td>SG2: Provide Measurement Results</td>
</tr>
<tr>
<td>Process &amp; Product Quality Assurance (PPQA)</td>
<td>SG1: Objectively Evaluate Processes &amp; Work Products</td>
</tr>
<tr>
<td></td>
<td>SG2: Provide Objective Insight</td>
</tr>
<tr>
<td>Configuration Management (CM)</td>
<td>SG1: Establish Baselines</td>
</tr>
<tr>
<td></td>
<td>SG2: Track and Control Changes</td>
</tr>
<tr>
<td></td>
<td>SG3: Establish Integrity</td>
</tr>
</tbody>
</table>
Some tips for making your Appraisal successful
SCAMPI should be a Time-Boxed Event

They don’t do this for a living, nor should they!

A structured event for learning about themselves

Engineers will keep searching and analyzing

Teams need help focusing

We learn all we can in the time we’ve allotted. Then Pencils Down!
Strive for “Structured Introspection”

Decide what you want to learn
Decide how you want to learn it
Learn a little
Have introspective conversations
Learn some more
Talk to people to learn more
Iterate through a structured response
Share it with your peers
Back to work!

“Filling out PIIDs is not on our “Bucket List!”
Neither is making the Lead Appraiser happy
Every reason we use SCAMPI should be focused on learning.
If you focus on learning you’ll most likely get your name in PARS!
Know thy Lead Appraiser... Months before!

- Teacher
- Coach
- Leader
- Peacemaker
- Psycho-analyst
- Consensus Builder
- Comedian
- Evangelist
- Scrum Master-ish

This is in addition to the “price-of-admission” experience, training, testing, observations, and certifications.

Notice that “Deity,” “Ratings Fairy,” “unreasonable jerk” and “The Decider,” is not on this list!
Go to the SEI Partner site to find 3-4 Lead Appraisers you feel are aligned with your company’s culture.

Use Google to research their presentations, papers, and web sites. All of the best LA’s have an extensive digital and written evidence of their thought leadership.

Lead Appraiser’s tend to live “on the road” so location should not be a driving factor.

Discuss your Goals and Objectives with the candidate LA to get a feel for whether they will be able to help you achieve them.

Most reputable LA’s have similar pricing for Appraisals and Training. Beware of those who have dramatically lower pricing. You won’t be happy.

The most important factors are familiarity with your business model and experience in the industry with the CMMI and process improvement.
Tips for selecting a Lead Appraiser

You should look for a Lead Appraiser who:

• Is a cultural fit with you and your organization

• Has experience with the methods and techniques you use (Agile, Scrum, V-Model…)

• Asks you a lot of questions when you first meet them

• Appears to be genuinely interested in what you do, and always wants to learn more

• Has experience in and understands your industry

• Doesn’t nickel and dime you for every phone call

• And most important….is willing to do what it takes to help make you successful
Selecting Appraisal Team Members

In addition to the pre-requisites, it might be easier to tell you what we don’t want:

People who are free most of the time

Those who are incapable of trusting their teammates

People you cannot collaborate freely

People who always insist on being right - or are bullies

People who think they get to approve everything through resistance

Guess that leaves my mother-in-law out…. 
Selecting Appraisal Team Members

Appraisal Teams also must meet the following criteria:

- Have completed the Intro to CMMI Class
- Have 25+ years of combined experience excluding the Lead Appraiser
- Not be newbies . . . 6+ years of experience
- Not have reporting relationships within the team (“yes boss!”)
- Not be executives from the organization is being appraisal
- Have completed the SCAMPI Appraisal Team Training
Frequently Asked Questions

• Can I get to ML3 by Tuesday?  No.
• We have no processes, can we be ML5 by the end of the year?  No
• Our process leader has two years of experience. Is that enough? No
• We have one artifact for each Practice. Are we Level Four? No.
• The team the wrote the processes wants to be on the appraisal team. No
• We’re Agile. Does CMMI fit? Yes
• We’re waterfall. Does CMMI fit? Yes. The answer to these is always “yes.”
• Should we hide things from the Lead Appraiser? No.

For more questions visit my blog at http://www.asktheCMMIAppraiser.com
So you’ve had an Appraisal. Are you Mature?

That depends on WHY you did it!
CMMI was intended to make your company GREAT!

Focus on the “Path to Greatness” and a nice certificate will likely follow . . .
What? This wasn’t enough for you?

Attend one of the classes on our CMMI ROAD SHOW!

Sept 14th – 16th  
Introduction to CMMI v1.3  
Huntsville, AL

November 16th-18th  
Introduction to CMMI v1.3  
Troy, MI

. . . or attend another one of our FREE Webinars!

September 9th  
CMMI for Executives: What THEY need to know

October 7th  
CMMI: All you need to know

Click over to www.broadswordsolutions.com today and register!
Thank you!

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Appraisals - Training – Consulting – Accelerators

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