

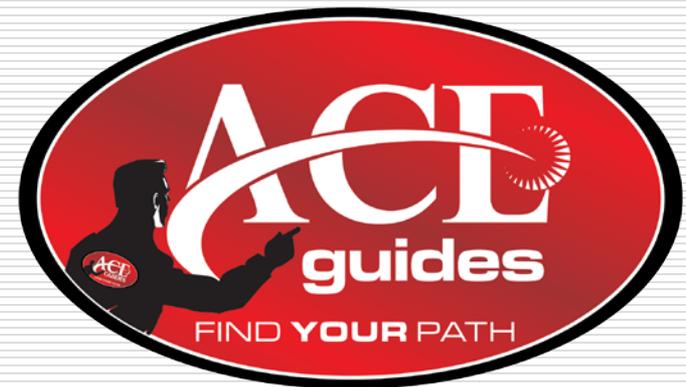
Managed Discovery? PIIDs?

How do I decide which
SCAMPI data collection techniques
are right for my organization?

Sam Fogle

SCAMPI High-Maturity Lead Appraiser

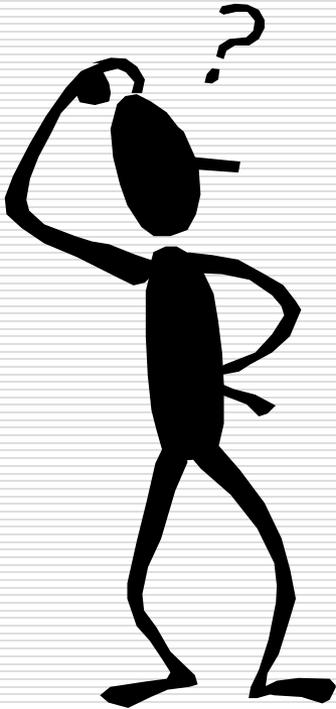
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Agenda

- Data Collection Approaches
- So, What Do I Build?
- Got Any Tips?
- Problems We Have Met & Lessons We Have Learned

Data Collection Approaches



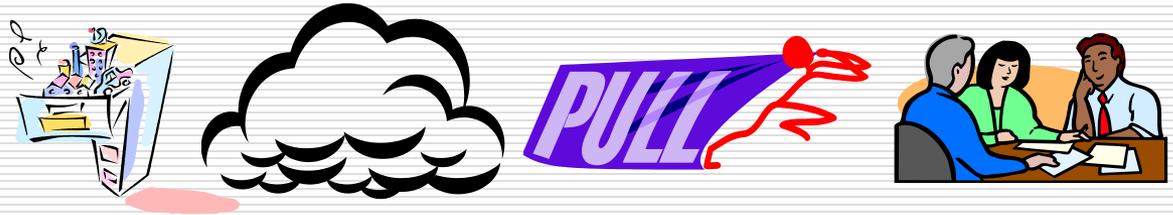
Appraisal Terms and Concepts

- “To make reasonable judgments regarding an organization’s implemented processes relative to the appraisal reference model, appraisal teams **base their judgments on the collection of objective evidence** for each specific and generic practice applicable to process area goals within the appraisal scope.” *
- Objective evidence or “footprints”, left behind after a practice has been implemented, are Practice Implementation Indicators (PIIs)
- A mapping between model practices and the PIIs is called the Objective Evidence Database

*From the SCAMPISM A, V 1.3: Method Definition Document

Appraisal Approaches

1. Full Discovery



Full discovery requires that the appraisal team do a search for evidence for each practice

SCAMPISM pilots took more than a month

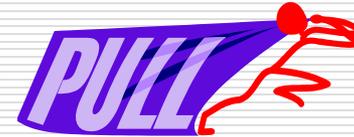
Appraisal conduct needed to be streamlined

Appraisal Approaches

2. Full Verification



Complete Mapping



In full verification, the organization provides a mapping of evidence for each practice. The appraisal team only searches when the data provided is not clear or convincing

This mapping could require >1K hrs to develop

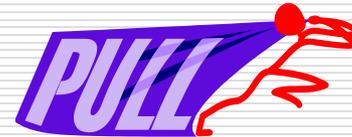
A streamlined option for appraisal preparation was needed

Appraisal Approaches

3. Managed Discovery



Mapping
of Key
Artifacts



Managed discovery has the organization provide key artifacts that address the majority of the practices and the appraisal team asks for additional evidence as required

The appraisal conduct may require additional time but preparation is simplified

Appraisal Approaches

Comparison of the three approaches:

	Preparation	Conduct	Risk
Full Discovery	Low	High	High
Full Verification	High	Low	Low
Managed Discovery	Moderate	Moderate	Moderate

SCAMPI V1.3 allows all of the above or anywhere in between

It is up to the organization and lead appraiser to plan a data collection strategy that best meets the organization's needs

Do I still need some form of PIID?

Probably!

For many appraisals, the decision will be made that some level of Objective Evidence Database or Mapping that relates CMMI practices to your data will be required

So, What Do I Build?



An Appropriate Set of Artifacts?

- Enough to convince the appraisal team that a practice has been implemented*
 - Multiple instances for items that are produced frequently, e.g. meeting minutes
 - Cover the breadth of the practice

*Talk to your Lead Appraiser

Who Should Build Your Mapping?

What kind of knowledge is needed?

- Understanding of the model practices
- Understanding of the appraisal method
- Understanding of how the project's data is organized

Do you have one person with all 3?

If not, then you need a team

- Process person?
- Project representative?
- Consultant?



Mapping Contents

- CMMI[®] practice name
- Artifact name
- Artifact location
- Basic Unit (Project) or Support Group
- Comments (may explain relevance of data)
- ...

Mapping Format

- Does your Lead Appraiser have a tool that they recommend?
- Will you use the data for internal purposes?
- How easy is it to insert or retrieve data?
- How easy is it to correct/update the data?
- Will you map practices to artifacts or artifacts to practices?

Cost & Timing

- Objective Evidence Database development can be a major driver of total appraisal cost
- The highest quality will come from developing the Objective Evidence Database in several iterations, so start early
- If it is possible to use the same sampling in a series of appraisals (SCAMPI B, then SCAMPI A), then going through the SCAMPI B will identify many of the Objective Evidence Database issues and allow corrections to the data collection process prior to the SCAMPI A

Validation

- Involve team members in quality checks
- Don't wait for Readiness Review to check the quality of the Objective Evidence Database
- Evolve mapping over a series of appraisals
- Effort devoted to the Objective Evidence Database (including quality checks) should be proportional to the importance of achieving the ratings

Remember: having an inaccurate mapping does not just make it harder to find the correct data, it may convince the appraisal team that appropriate data does NOT exist

Got Any Tips?



Potential Work Saver

Is the standard process detailed enough so that it will be fairly consistent between implementations where a specific type of data will be found?

If so, then provide the units/projects with a mapping that already tells them where to find the evidence

e.g.

PP SP 2.2 Identify Project Risks

see section 3.4 of the Risk Management Plan

Use Directories

When the evidence you want to include is a frequently generated item (e.g. monthly meeting minutes or peer review reports) linking to the directory where the items are stored will provide advantages

- The link will not go stale – new items will continue to be populated into the directory so fresh evidence is available
- The appraisal team is free to sample from the set, thus aiding confidence in institutionalization

Problems We Have Met & Lessons We Have Learned



Problems

- What sort of problems have you encountered in trying to plan for or develop your mappings?
- Have others encountered this same problem? And if so, were you able to solve it?

Lessons Learned

- What other lessons have you learned related to Objective Evidence Databases?

Mapping Preparation

If done poorly

- Can consume vast resources to prepare
- Will reflect a poor understanding of what is needed
- Will cause appraisal to proceed very slowly
- Can confuse the true state of the practice

If done well

- Will require limited restarts or rework
- Accurately reflects the work done in the organization
- Provides an efficient means for an appraisal team to find appropriate evidence
- Identifies appraisal risks by uncovering holes in implementation

Questions ?

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