Quantifying Appraisal Readiness: Are you ready for your SCAMPI?

8th Annual CMMI Technology Conference & User Group

November 2008

Pat Mitryk

cognence inc

Improving Software Economics

Agenda

- Readiness Defined?

- Why Readiness Review?

- Approach

- Example Results

- Lessons Learned – The Good, Bad and the Dreaded Overtime

Readiness Defined – The Go/No Go

Appraisal Readiness* is:

- A determination of whether or not the appraisal team and appraised organization are ready to conduct the appraisal as planned. Readiness is reviewed from several aspects:
  - Data:
    - Are the PIIDs complete?
    - Are the PIIDs accurate?
  - Teamwork
    - Are team members operating efficiently (keeping to the schedule)?
    - Are team members playing together nicely – communicating well/being objective?
  - Logistics:
    - Are the facilities and equipment adequate?
    - Are all appraisal participants available?
  - Plans and schedule estimates:
    - Is the planned appraisal schedule commensurate with any constraints?
    - Progress against our data collection plan?
    - Are the risks are adequately captured?

*SCAMPI MDD v1.2

What Were the CMMI Folks Thinking??

Why require Readiness Review activities?

"The certainty of misery is better than the misery of uncertainty" -- Pogo

- Reduces risk, keeps the appraisal team lead employed and appraisal team members happy
- The Readiness Review will reduce the burning to a few small embers
- Verification of the appraisal data collection plan

Range of Activities for Readiness Review

- Criteria to determine Readiness Review time and effort?
  - Any other preparatory activities done?
    - SCAMPI C(s)?
    - PIID workshops with our PIID preparers?
  - Long- vs. Short-term PIID creation?
  - Who mapped the organization's processes to CMMI practices?
  - What are the lead times between process improvement and appraisal activities?
  - Combine with Appraisal Team Training?
  - Should we hold a separate and focused activity vs. combined with a SCAMPI C/B?
  - Are we preparing for a large-scale or complex SCAMPI A?

What You Get for the $?

- Can reduce the time spent for the SCAMPI B or A onsite

- Reduces the risk of unplanned appraisal overtime
  - Remember those crazy late nights common in "discovery" appraisals

- Answers key questions:
  - Is the existing evidence sufficient?
  - Is there too much evidence?
  - Where/How will we get the objective evidence we need?

More Benefits…

- Identifies specific gaps in data readiness – which will translate to SCAMPI-ruled weakness (no direct evidence – NI, PI…)

- Clarifies gap closure activities and estimation of the timeline until a SCAMPI B or A can be realistically held:

  – What are our weaknesses?

  – Can we fill those gaps with other data gathering techniques?

  – How will we prioritize activities around gap closure?

  – How long will it take to close the gaps and institutionalize the improvement?

  – How do those impact our current SCAMPI schedule?

Yes, Even More Benefits…

- Increases specific awareness for scoping the SCAMPI and may change assumptions guiding the choice of representative projects – those in scope as focus and non-focus

- Can be combined with team training to:

  - Enable early learning of individual and team capabilities

  - Promote initial teamwork – and allows extra time for norming …..before any storming begins

  - Provide insight into the rate of progress of each mini-team

Questions that Need Answers…

1. What weaknesses do we have? (i.e., gaps in data)

2. Do we have a process gap or an implementation gap?

   - Process is missing, therefore institutionalization within a short timeframe is risky

        Vs.

   - Process exists, but one or more projects have not adequately implemented

3. What are our opportunities to fix the gaps?

   - Longer timeline for process gaps

   - Project start or in-process fix

Approach

- Establish mini teams and assign work – typically by PA

- Each mini team reviews PIID evidence and provides two scores

  1. Does the PIID link work – does it take us to the appropriate document, document section or directory?

  2. Is the artifact reasonable for each instantiation of each practice?

- Review progress – pace at which mini teams are progressing

- Review cumulative results

Judgment of Readiness

- The fine line of judgment….Appraisal vs. Readiness Review*
  - Do not characterize or judge strength or weakness – this takes to much time and is beyond RR objectives
    - If we begin characterization, then the SCAMPI clock starts ticking
  - Make comments concerning:
    - Appropriate-ness of direct vs. indirect artifact evidence– common to have team debate and discussion here
    - Suggestions for what may be a better evidence artifact
      - Assuming something may exist
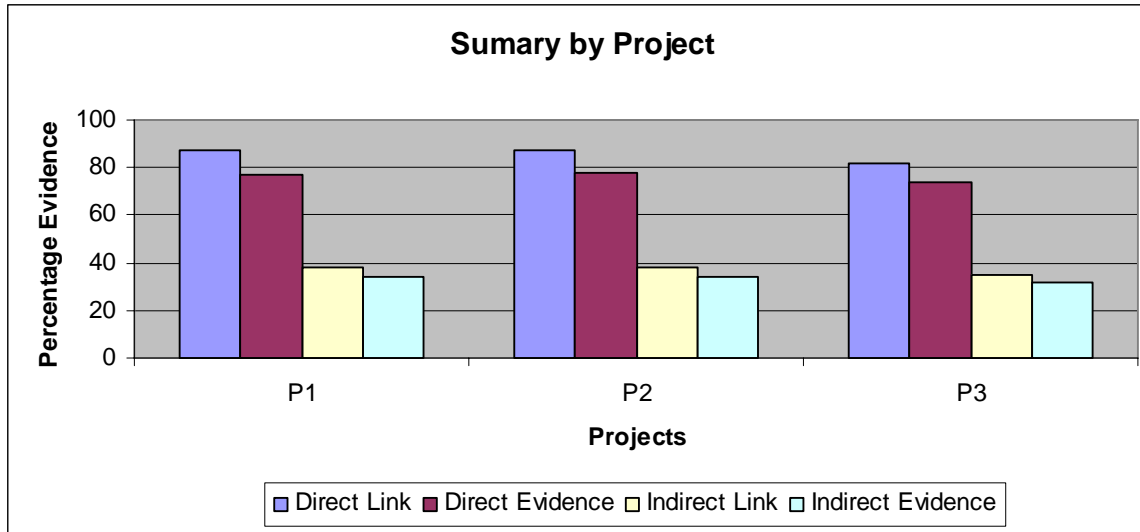   - Using an artifact which we may have seen

  *Note: I start with a bogie of three minutes / practice to provide RR "score" and any notes

Results – Raw Data Aggregation

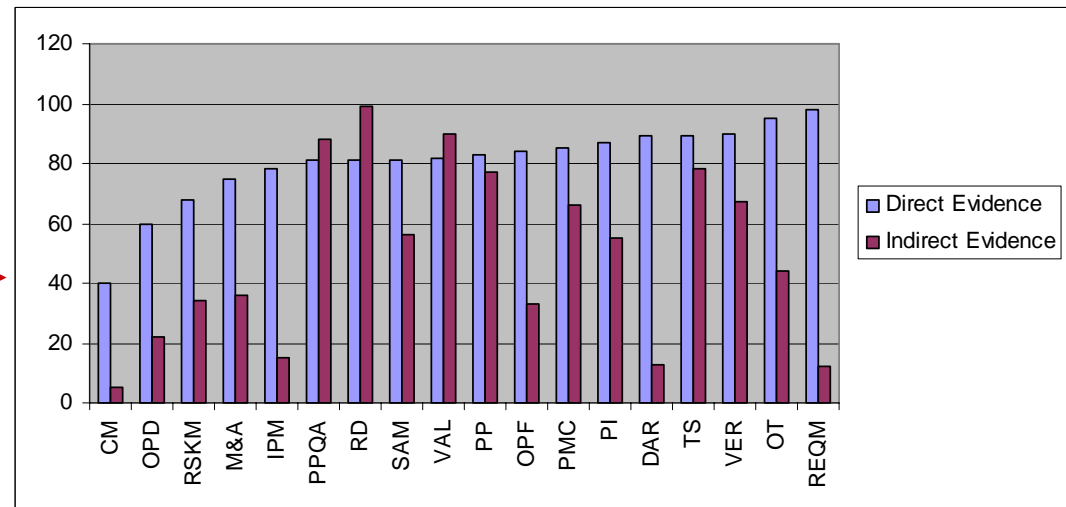| Project Management Process Areas	Project Planning				Prog Mon & Control				Supplier Mgt				Integ Prog Mgt *				Risk Management			
	DL	DE	IL	IE	DL	DE	IL	IE	DL	DE	IL	IE	DL	DE	IL	IE	DL	DE	IL	IE
Max #	26	26	26	26	22	22	22	22	20	20	20	20	21	21	21	21	19	19	19	19
P1 #	26	23	12	12	22	19	14	14	20	18	9	9	21	17	11	11	18	16	12	10
P2 #	26	23	12	12	22	19	14	14	20	18	9	9	21	17	11	11	18	16	12	10
P3 #	23	19	12	12	21	18	14	14	17	14	9	9	21	16	11	11	8	7	5	5
P4 #	22	17	11	10	22	22	13	13	16	13	9	8	21	21	12	12	19	19	14	14
P5 #	24	24	14	14	22	22	22	22	18	18	11	11	21	21	12	12	13	13	6	6
P1 %	100%	88%	46%	46%	100%	86%	64%	64%	100%	90%	45%	45%	100%	81%	52%	52%	95%	84%	63%	53%
P2 %	100%	88%	46%	46%	100%	86%	64%	64%	100%	90%	45%	45%	100%	81%	52%	52%	95%	84%	63%	53%
P3 %	88%	73%	46%	46%	95%	82%	64%	64%	85%	70%	45%	45%	100%	76%	52%	52%	42%	37%	26%	26%
P4 %	85%	65%	42%	38%	100%	100%	59%	59%	80%	65%	45%	40%	100%	100%	57%	57%	100%	100%	74%	74%
P5 %	92%	92%	54%	54%	100%	100%	100%	100%	90%	90%	55%	55%	100%	100%	57%	57%	68%	68%	32%	32%
3 Projects Total #	75	65	36	36	65	56	42	42	57	50	27	27	63	50	33	33	44	39	29	25
3 Projects Total %	96%	83%	46%	46%	98%	85%	64%	64%	95%	83%	45%	45%	100%	79%	52%	52%	77%	68%	51%	44%
4 Projects Total #	97	82	47	46	87	78	55	55	73	63	36	35	84	71	45	45	63	58	43	39
4 Projects Total %	93%	79%	45%	44%	99%	89%	63%	63%	91%	79%	45%	44%	100%	85%	54%	54%	83%	76%	57%	51%
5 Projects Total #	121	106	61	60	109	100	77	77	91	81	47	46	105	92	57	57	76	71	49	45
5 Projects Total %	93%	82%	47%	46%	99%	91%	70%	70%	91%	81%	47%	46%	100%	88%	54%	54%	80%	75%	52%	47%

Can be done with a simple spreadsheet solution

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Presentation Data to Tell A Story of "Readiness"

Sumary by Project

Which projects should we work first?

Direct Link ■ Direct Evidence □ Indirect Link □ Indirect Evidence

Which Process Areass should we work first?

Direct Evidence ■ Indirect Evidence

Presentation Data to Tell A Story of "Readiness"

Need Evidentiary Work
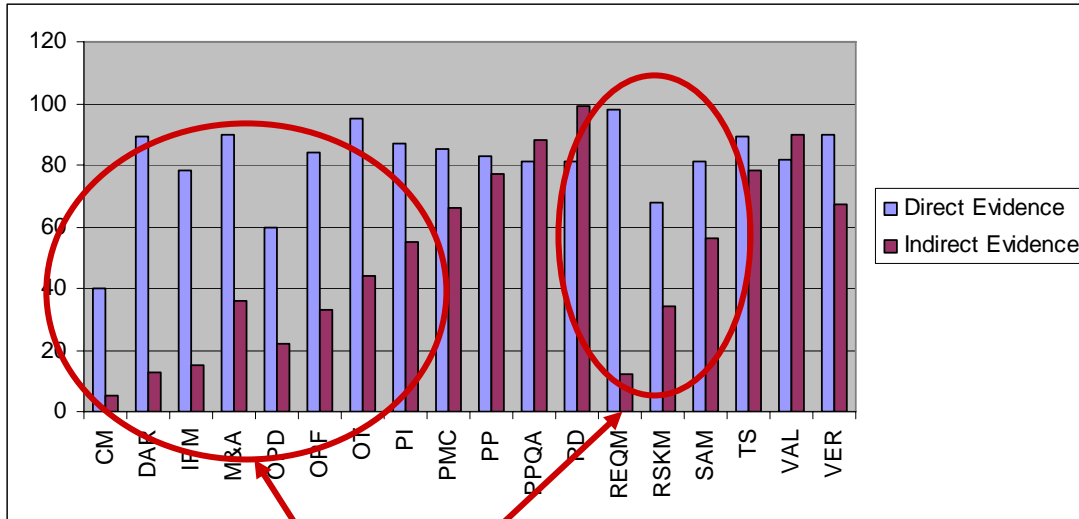
Set Your Minimum Goals
Based on SCAMPI Class or On-site Schedule Constraints
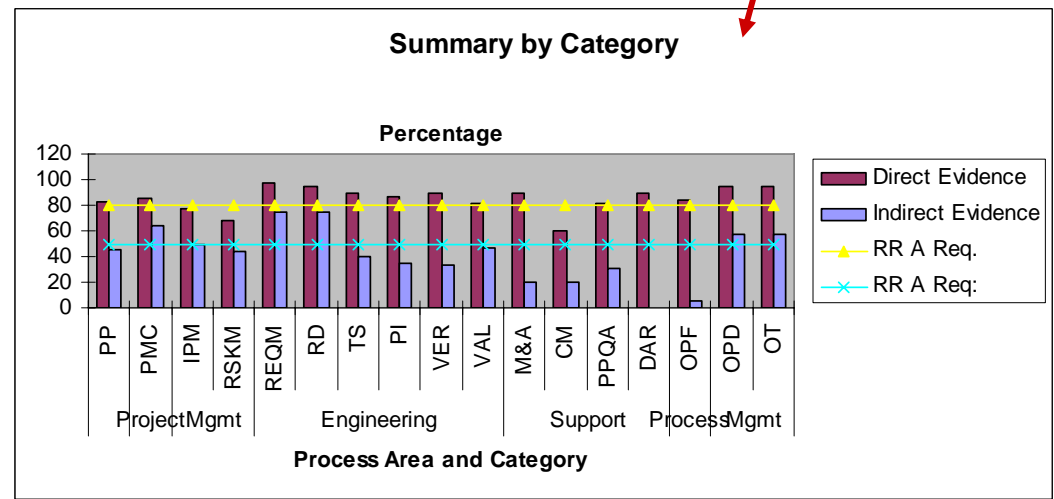
Conclusions and decisions?

- Do we hold the SCAMPI as scheduled?
  - Postpone or reschedule?
- Do we need more or less time on our SCAMPI A/B onsite schedule?
- Where are our largest gaps?
- What are the gap priorities?
  - In need of the longest lead time?
- Will any of the gaps affect the selection of focus/non-focus project?

Readiness Review vs. SCAMPI?

Readiness Review

- Pace if fast – involves quick decisions and scoring

- Basis of judgments, decisions and follow-on action = preparedness for SCAMPI

- Scope = same as SCAMPI or limited to high risk areas

- May involve one LA or entire team depending on all goals

SCAMPI C

- Pace if slower – involves evaluation, declaration of, and rationale for each weakness

- Basis of judgments, decisions and follow-on action = effective process improvement

- Scope can be limited or comprehensive

- May involve just one LA

Lessons Learned

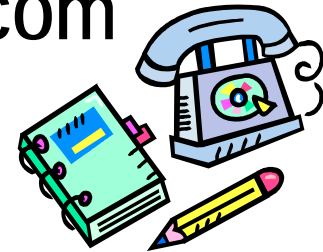"What we anticipate seldom occurs….. what we least expect generally happens" -- Disraeli

– As in defining quality requirements, if we fail to do a good job in identifying issues early, we will surely pay for it later with hours of unexpected overtime:

- Even the best "PIID preparers" need a quality review of their work
- Take the opportunity to move the discussions regarding the designation of direct and/or indirect out in front of the SCAMPI on site

Questions?

Pat Mitryk

pat_mitryk@cognence.com

(732) 804-6410

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