Finding the Perfect Recipe:
Preparing for a CMMI SCAMPI A

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What’s on the menu?

» A more traditional recipe for preparation

» Our recipe adaptation
  • Creative…based on traditional but met our needs
  • Included some alternative ingredients
  • A little leaner and agile-like
  • It was less expensive and more cost effective

» Chef tips!
Chef de Cuisine: Keymind Division

» 25-person division of a 500-person umbrella organization, Axiom Resource Management, Inc.
» IT and Creative division of Axiom
» Specializes in Web-based application development
» Strong focus on employing continuous build integration, user-centered design, and full Section 508 compliance
A not-for-profit applied research & technology transfer organization

Affiliated with the University of Maryland

Our philosophy: understanding the context and suggesting appropriate improvements

Our Process Improvement approach
  - Understanding the effort (e.g., gap analyses)
  - Planning the improvement initiative
  - Implementing the improvement initiative plan
  - Conducting an assessment

Other Competencies
  - Software/Systems Management, Measurement and Empirical Studies
  - Knowledge Management
  - Software Architecture, Testing, and IV&V
A Traditional Recipe

Grandma Jane Granowski

Old-fashioned Molasses Cookies

1 1/2 c. brown sugar
3/4 c. shortening/margarine
3/4 c. molasses
2 eggs
tsp. ginger
tsp. cinnamon
3 tsp baking
1 tsp hot
Salt

1/2 cup
# Appraisal Requirements

<table>
<thead>
<tr>
<th>Uses</th>
<th>Types of Objective Evidence</th>
<th>Coverage Reqmts</th>
<th>Cost</th>
<th>Minimum Team Size</th>
<th>Leader Reqmts</th>
<th>Ratings Received</th>
<th>Confidence in Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCAMPI C</strong></td>
<td>Documents or Interviews</td>
<td>No</td>
<td>Low</td>
<td>1</td>
<td>Trained and experienced</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>- Planning improvement Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Decision Making Guidance</td>
<td>Document and Interviews</td>
<td>No</td>
<td>Medium</td>
<td>2</td>
<td>Trained and experienced</td>
<td>No</td>
<td>Medium</td>
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<tr>
<td><strong>SCAMPI A</strong></td>
<td>Documents and Interviews</td>
<td>Yes</td>
<td>High</td>
<td>4</td>
<td>Authorized Lead Appraiser</td>
<td>Yes</td>
<td>High</td>
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<tr>
<td>- Mitigate Risks</td>
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## A Traditional Recipe

<table>
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<tr>
<th>Objective</th>
<th>Scope</th>
<th>Timeframe</th>
<th>Duration</th>
<th>Minimum Team Size</th>
<th>Tools Used</th>
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<tr>
<td><strong>SCAMPI C</strong></td>
<td>Informal, quick look to identify gaps</td>
<td>All practices of the organization with a focused on indirect evidence</td>
<td>18-24 months prior to SCAMPI A</td>
<td>1 to 2 days</td>
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<tr>
<td><strong>SCAMPI B</strong></td>
<td>Systematic analysis to identify gaps</td>
<td>Practices from selected process areas on a few projects</td>
<td>6-8 months prior to SCAMPI A</td>
<td>1-2 weeks</td>
<td>2</td>
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<tr>
<td><strong>SCAMPI A</strong></td>
<td>Formal analysis of organization at a single point in time using select projects with the goal of provide quality rating benchmarks relative to the CMMI</td>
<td>All practices for focus projects of the organization being appraised</td>
<td>When you are highly confident you will get the desired outcome</td>
<td>2-3 weeks</td>
<td>4</td>
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Our Recipe
How Our Recipe Started

» Initially planned to follow a more traditional recipe
» Appraisal preparation activities were incorporated in the Process Improvement (PI) Plan
Adapting the Recipe

» Went shopping: Found a lead appraiser via Decision Analysis and Resolution (DAR)
  • Three candidates
  • Evaluated each approach
  • Compared cost proposals

» Interviewed each lead appraiser

chef’s TIP
Leverage your SCAMPI preparation activities to show process evidence at the organizational level
Adapting the Recipe

» Lead appraiser suggested holding an ARC*-compliant event as opposed to a SCAMPI B
» Tested it out (just like a new recipe)
» Discovered we needed to make some “fixes” to the recipe
» Went so well, planned, and did it again

*ARC = Appraisal Requirements for CMMI v.1.2

chef’s TIP
Don’t be afraid to test the process
Key Ingredients: ARC-Compliant Events

Conducted Two ARC-Compliant Events
- All projects in the organization used the same practices
- Needed to ensure our interpretation of each practice was the same as the lead appraiser’s

Each event focused on a different project
- Examined all L2 and L3 practices on each project
Further Recipe Refinements: Handling of Findings

- Estimated the time and effort to complete each finding
- Updated PI Schedule for the appraisal activities given the finding results
- Identified and prioritized findings – not all findings were critical
- Verified implementation of critical “fixes” in the next ARC B/C compliant event

**TIP**
Status PI sponsor to maintain buy-in and obtain specific support needed as per the event findings
Further Recipe Refinements: SCAMPI Team Selection

» Planned for four SCAMPI Team participants but wanted at least one additional participant
» Lead appraiser had called for volunteers in the past
» More shopping!

**chef’s TIP**

Screen volunteers carefully to ensure that they can deliver on your organization’s appraisal approach
Adaptation and Creativity Can Be a Good Thing!

» Our Recipe
  • Was initially planned as more traditional
  • But, evolved and adapted over time

» CMMI Level 3!

» Saved at least $42K

» Onsite period was much shorter…
To Go Traditional or To Adapt?

» It depends!
  • On the organization needs, the lead appraiser, etc…

» For our approach it helped when:
  • A standard methodology was implemented on projects in the organization appraised
  • The types of projects in the organization were similar--or if dissimilar, the ARC-compliant events should be conducted for each project type (e.g., software development, maintenance)
  • ARC-Compliant events were implemented on the projects targeted for the SCAMPI A (focus projects)
## Our Recipe Adaptations

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In Summary

» Examine the rationale, feasibility, and effectiveness of the appraisal plan
» Conduct iterative ARC-compliant events on key projects
» Recruit SCAMPI A team members
» Work creatively with your lead appraiser
» Use your defined Decision Analysis and Resolution (DAR) processes when you have tough decision to make.
References


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Questions?