Workshops to Jumpstart Measurement Planning

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Rationale for Workshop Strategy

• Measurement is an evolutionary process
• Workshops are a primary tool to accelerate planning and development of measurement
  – Practical, usable solutions to each organization’s actual problems and priorities
• Part of a strategy to provide focused guidance and usable solutions as the measurement program evolves
  – Different workshops presented at strategic points as the organization grows in process maturity
Different Workshops Support a Long-term Strategy

• Establishing a measurement process
  – Management Planning Workshop
  – PSM Workshop

• Growing toward higher maturity levels
  – CMM Business Case Development Workshop

• Higher order maturity workshops
  – Organizational Quantitative Management Planning Workshop
  – Project Quantitative Management Planning Workshop
Roadmap

Establishing a measurement process
- Management Planning Workshop
- PSM Workshop

Growing toward higher maturity levels
- CMM Business Case Development Workshop

Higher order maturity workshops
- Organizational Quantitative Management Planning Workshop
- Project Quantitative Management Planning Workshop
1. Management Planning Workshop

**Purpose**

- Insight into operational and strategic performance planning, establish essential drivers of management by fact

**Attendees**

- Senior managers and direct reports

**Prerequisite**

- Enterprise Performance Management Briefing
Management Planning Objectives

- Determine initial scope of measurement program
- Identify Strategic Initiatives
  - Objectives
  - Critical Success Factors
  - Initial Indicators for CSFs
- Define Deployment and Analysis Process
- Define Assessment/Feedback Process
- Initial set of goals to drive measurement planning
  - Prioritized and quantified business goals
- Discuss possible organizational structure for measurement
- Establish policy regarding measurement program
Management Planning Workshop

Business Performance Issues

- Techniques For Enterprise Measurement
- ROI Guidance
- Balanced Scorecard

EPM Overview

Briefing

Workshop

- Understand Measurement Concepts
- Strategies, Critical Factors And Scope
- Alignment And Feedback Guidelines

Hand-off to PSM

Deploy Process

Assess Results

Ongoing Processes

Management by Fact

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2. PSM Workshop

**Purpose**
- Establish an initial measurement process and organizational framework based on PSM principles

**Attendees**
- Software engineering process group (SEPG) staff
- Software engineering leadership
- Representative(s) of sponsor organization(s)

**Prerequisite**
- PSM Course
Workshop Objectives

- Develop a PSM-based measurement plan
- Define project-specific issues and measures based on higher-level issues and indicators
- Explore issues for defining measures and obtaining buy-in
- Define data collection and measurement database issues
- Define analysis and reporting process
- Establish an Action Plan for implementing the measurement process
Roadmap

Establishing a measurement process
- Management Planning Workshop
- PSM Workshop

Growing toward higher maturity levels
- CMM Business Case Development Workshop

Higher order maturity workshops
- Organizational Quantitative Management Planning Workshop
- Project Quantitative Management Planning Workshop
3. CMM Business Case Development Workshop

Objectives

• Develop initial estimates of the costs and benefits of improved maturity for a specific organization

• Build a business case
  – Determine if progressing to a higher state of maturity is cost effective
Workshop Approach

• Collaborative effort of management team to:
  - Identify business areas
  - Define alternative scenarios
  - Identify costs of scenarios
  - Identify benefits of scenarios
  - Evaluate results

• Benefits structured like Balanced Scorecard
• Organizational and industry data applied where appropriate and available
• Output is consensus estimate
## Costs for Area Y in Year Z

<table>
<thead>
<tr>
<th>Cost Element</th>
<th>Current State</th>
<th>Alternative Scenario A</th>
<th>Alternative Scenario B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Assessment Team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment Participants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Impact (Cost to Adopt)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Attention</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## Benefits for Scenario X, Area Y, Year Z

<table>
<thead>
<tr>
<th>Benefit Element</th>
<th>Estimated Impact</th>
<th>Value</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profits</td>
<td>Increase sales/margin</td>
<td>Medium</td>
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</tr>
<tr>
<td>Sales/Market Share</td>
<td>L4 discriminator (5%)</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Improve predictability</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td>10% - 20%</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>20%</td>
<td>Low</td>
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</tr>
<tr>
<td>Cycle Time</td>
<td>15%</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Innovation &amp; Learning</td>
<td>New SPI capabilities</td>
<td>Medium</td>
<td></td>
</tr>
</tbody>
</table>
Costs and Benefits

• Costs
  - Maintain Level 3 - $190,000
  - Additional Cost for Level 4 - $195,000
  - Additional Cost for Tailored - $160,000

• Benefits
  - Level 4 - $492,000+
  - Tailored - $496,000
Roadmap

Establishing a measurement process
- Management Planning Workshop
- PSM Workshop

Growing toward higher maturity levels
- CMM Business Case Development Workshop

☑ Higher order maturity workshops
- Organizational Quantitative Management Planning
- Project Quantitative Management Planning
4. & 5. Higher Order Maturity Workshops

Legend

- Knowledge used to produce
- Training sequence

Italic Personnel Participating

Company activity

SEPG

Quantitative Management Course

SEPG, Executives

Organizational Workshop

SEPG, SQA, Project Leads, Analysts

Org. QM Plan & Procedures

SEPG, SQA, Project Leads, Analysts

Local QM Training

SEPG, SQA, Project Leads, Analysts

Project Workshop

SPC & QM Techniques Course

Project Plans & Procedures

Baselines, Control Charts, Trends, etc.
Steps to Developing QM Strategy

**Organizational Workshop**
- Elicit and quantify business goals
- Identify software process strategies and goals to support achieving business goals
- Determine measurements required to track goal achievement
- Document results in Organizational QM Plan
- Elicit and quantify customer goals

**Project Workshop**
- Establish project-specific goals based on organizational and customer goals
- Determine products and process elements that affect goal satisfaction
- Identify initial indicators of product quality and process performance related to goal satisfaction
- Establish targets and/or baselines for those indicators for each product and process activity
- Assess project ability to meet the targets
- Document results in Project QM Plan
Organizational Workshop Approach

Systematic planning process
Based on a hierarchical system of goal setting
Integrated into local CMM® Level 4 approach
Results in:
• Established set of Business Goals
• Established Software Process Strategies
• Software Process Goals
• Measurement Requirements
Project Workshop Approach

Systematic planning process
Supported by worksheets and templates
Integrated into local CMM® Level 4 approach
Driven by established organizational goals

Activities:
- Quantify and Prioritize Project Goals
- Establish Customer Goals
- Establish Project Process and Product Goals
- Review Process Baselines
- Initiate Documentation of QM Plans
Summary

• Begin measurement program early
• Strategically position tailored workshops based on level of maturity
• Get management involved up front
• Include training for each workshop
• Key Elements:
  – Consistency of focus on business issues
  – Common definition of measures
  – Early development of baseline project data
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