AN INDUSTRIAL EXPERIENCE ASSESSING ORGANIZATIONAL MATUREITY WITH ISO/IEC 15504-7

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Presentation for SPICE 2009 by Timo Varkoi

INTRODUCTION

- A workshop in a software intensive to adopt CMMI-DEV
- Workshop Objectives
  - understand the organization business goals,
  - analyze the current state of the processes,
  - produce an estimation about the degree of satisfaction of the current process regards the CMMI-DEV maturity level 3, and
  - produce a general plan for a process improvement cycle to achieve the defined business goals using the CMMI-DEV maturity level 3.
- Additional representation of the estimation in terms of the recent ISO/IEC 15504-7 Organizational maturity levels
ASSessment PLaNning

- Assessment target: typical successful low maturity organization – needs improvements
- PRO2PI ("Pro cess Capability Profile to Process Improvement")
  - a methodology for process improvement driven by a Process Capability Profile model
  - defines exploratory assessment as an assessment with the objective to explore options to support process improvement in a small, low maturity enterprise
- PRO2PI-WORK is a method for a workshop to establish a PRO2PI
- Scope: CMMI-DEV Maturity Levels 2&3
- The assessment follows
  - ARC-C requirements
  - ISO/IEC 15504-7 Class 3 requirements

ASSessment REsults

- The result of the preliminary assessment, represented as CMMI-DEV Maturity Levels
- The estimation is that the organizational unit will satisfy about 30% of ML 2 and about 35% of ML 3

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<th>PMC</th>
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Table 1 - Exploratory assessment results, presented by CMMI-DEV maturity levels 2 and 3
ASSESSMENT RESULTS

- Results may be misleading
  - CMMI-DEV maturity levels consider the engineering process areas, even with low capabilities, only from maturity level 3.
  - This organization, however, has low capability good development engineering practices.
- An adjustment in the planning
  - to include a representation of these results using an application of the ISO/IEC 15504-7 Organizational maturity levels 1, 2 and 3 on the continuous representation of CMMI-DEV model
  - The objective of this decision was to produce a better result.
    - Process improvement point-of-view

The result represented by CMMI-DEV Organizational Maturity Levels

The estimation is that the organizational unit will satisfy about 80% of OML 1, about 50% of OML 2 and about 35% of OML 3

Table 1 - Exploratory assessment results, presented by 15504-7 organizational maturity levels 1, 2 and 3

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CONCLUSION

- Based on this experience
  - Exploratory assessment results using the ISO/IEC 15504-7 Organizational maturity levels 1, 2 and 3 was better than the same results using the original CMMI-DEV maturity levels 2 and 3, in terms of the communication about the current situation and of the orientation for a improvement cycle.
  - The evolution of the capability of engineering process areas, from level 1 to level 2 and then to level 3, is more explicitly in the ISO/IEC 15504-7 Organizational maturity levels.
  - This explicitly will help low maturity organizations to understand better the path to maturity level 3.