SPI, CMMI®

Summary

The primary mechanism for achieving maturity and bottom line results in a specific organization is a focused, structured, and institutionalized program of continuous software process improvement (SPI). This course introduces participants to the underlying premise of SPI, and CMM-Integration as the primary reference model. It emphasizes understanding of maturity and capability levels and the grouping of process areas (PAs). The framework described can be used by organizations to determine their ability to develop and maintain systems; it is a model for organizational improvement. Finally, course participants will be engaged in discussions about which maturity level is required for an organization, considerations regarding Return-Of-Investment (ROI) calculations and successful change management strategies.

The course is composed of lectures and class exercises with ample opportunity for participant questions and discussions. Much of the class time is devoted to exercises in which participants, typically working in small teams, practice the skills being taught.

Audience

This course is designed for anyone interested and/or involved in SPI and CMMI®.

Criteria

Course candidates should have a background and some years experience in software engineering. The "Foundation" courses are highly recommended.

Duration

2 days (4 modules).

Remarks

Two case studies will be distributed to the course participants prior to the course for preparation purposes.
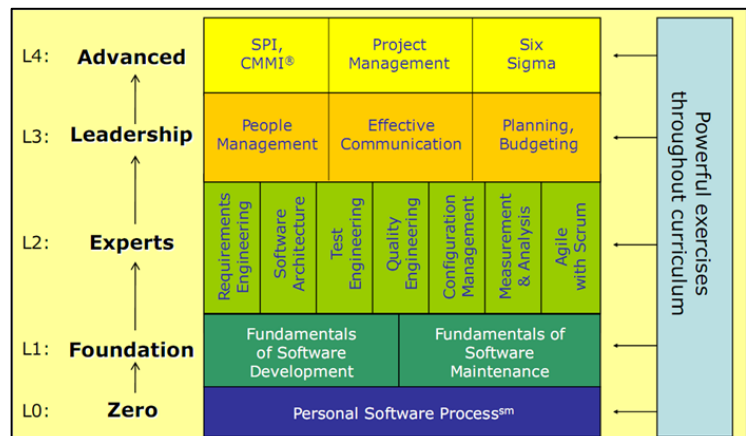

Our Software Engineering Curriculum

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Program

Module 1:
- Software Process Improvement
  - o Why?
  - o How to start?
- CMMI® Overview
  - o Disciplines and models
  - o Process areas and their components
  - o Representations: Staged versus Continuous

Module 2:
- Level 2: From Chaos to Project Discipline
  - o What is Level 2?
  - o Process Areas and Specific Goals
- Level 3: Towards Standardization
  - o What is Level 3?
  - o Process Areas and Specific Goals

Module 3:
- Level 4: Let the Numbers Count
  - o What is Level 4?
  - o Process Areas and Specific Goals
- Level 5: Statistical Process Control
  - o What is Level 5?
  - o Process Areas and Specific Goals

Module 4:
- Assessments
  - o ARC
  - o SCAMPI^{sm}
  - o Lessons learned
- Which maturity level?
  - o Towards engineering maturity
  - o ROI considerations
- Change Management
  - o Leadership and creativity
  - o Critical success factors

During the course, 1-2 challenging exercises in each module are used to demonstrate the discussed concepts and techniques. Example solutions to all course exercises are provided.

SE-CURE AG can also customize this course or any of our other standard courses to meet your exact in-house training needs and specifications. For example, class exercises can be tailored to include actual examples from your organization in order to make the training more relevant to your environment.

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