The Software Capability Maturity Model® (CMM) for Senior Managers

Are your competitors exploiting software superiority to gain a competitive advantage?

Are you dissatisfied with the current state of software development in your organisation?

Are your software processes capable of satisfying your customer's value proposition?

The marketplace is constantly changing which means that organisational requirements must change to meet the needs of the market. For most sectors, and indeed for software intensive organisations, this requires a high level of organisational agility to respond to these changes. Agility simply defines the organisation's capability to manage the rate of change and the direction of change based on market requirements. For software intensive organisations, continuous software process improvement facilitates that agility and, as such, it is much more than just a short-term need – it is a prerequisite for long-term success and consequently it must be viewed as a way of life.

The Capability Maturity Model (CMM) provides software intensive organisations with an evolutionary improvement path (5 maturity levels) from an ad hoc, immature process to a mature, disciplined one. However, increasing organisational process maturity is not a question of jumping directly from level one to level five. Although often perceived as such, it is imperative that organisational personnel refrain from viewing process improvement as a one-time investment. Many senior managers see Software Process Improvement as an activity invented by quality fanatics with the idea of reaching some level of "Process Utopia." What they fail to see is that it enables the organisation to prosper by combining effective processes with skilled, motivated and creative people focusing on adding value to the business in areas where changes can yield the greatest long-term benefits.

The Software Capability Maturity Model for Senior Managers is a one day seminar that gives a top level view of the CMM® so that senior level managers have sufficient grounding in CMM to understand what is involved in a CMM-based Software Process Improvement (SPI) programme. The tutorial is oriented to senior managers; product and technical managers representing the main business units of the organisation, and will address such issues as: how SPI can benefit the business objectives of an organisation, the tangible and intangible benefits of SPI, and to appreciate the time and effort needed to move between the CMM levels.

- Why improve the software process
- The tangible and intangible benefits of SPI
- Process management concepts
- Overview of SW CMM®
- SW CMM® structure
- Maturity levels and Key Process Areas
- Process improvement roles & responsibilities
- Process improvement infrastructure
- Main implementation concepts and issues

[1] ® Capability Maturity Model and CMM are registered in the U.S. Patent and Trademark Office.

• Training

Introduction to the Capability Maturity Model® (CMM)

The SEI Capability Maturity Model (CMM) for software describes a framework that organisations can use to determine their ability to develop and maintain software; it is a model for organisational improvement. This training presents an overview of CMM and is a pre-requisite to completing the "CBA Lead Assessor Training". The CMM can be applied by organisations to improve their software via a software process assessment. The CMM can also be applied by acquisition or purchasing organisations to select qualified software vendors via contractor evaluations. The underlying principles of the CMM stand behind all current approaches to software development process assessment and improvement, including ISO and SPICE (ISO/IEC 15504). This 3 day course presents an overview for practitioners of the CMM's five-level maturity scale and explains all of its Key Process Areas to provide a complete overview of the concepts of the CMM. It enables the participants to identify the issues essential for process improvement using the CMM and to begin to make judgements on the implementation of the CMM. The course is based on versions 1.1 of the CMM.

Benefits of the Course

- You will learn the principles of CMM for process improvement
- You will learn the basics of the process-improvement procedures whose design underlies all current international software process improvement efforts.
- You will learn the basics that underpin all current assessment procedures

• Assessment

CBA IPI Assessment

The CMM-Based Appraisal for Internal Process Improvement (CBA IPI) method was developed by the Software Engineering Institute in 1995 and has been used by hundreds of organisations worlwide.

It is a diagnostic tool that provides an accurate picture of the strengths and weaknesses of an organisation's software process, using the CMM as reference model.

ESI assembles and trains, if required, a competent assessment team under the leadership of an authorised Lead Assessor, to conduct a structured series of activities with key people in the organisation to understand their problems, concerns and ideas for improvement.

The results of these assessments are formally registered in the Software Engineering Institute Process Appraisal Information System (PAIS).