

Introduction to CMMI® - Staged and Continuous

Course Description:

The Introduction to Capability Maturity Model® Integration v1.2, Staged and Continuous course introduces participants to the Capability Maturity Model® Integration and its fundamental concepts. The course discussion emphasizes understanding of the CMMI structure, capability levels, maturity levels and all process areas.

This three-day course describes a framework that organisations can use to determine their ability to establish and maintain adequate processes; it is a model for organisational improvement. The course is composed of lectures and class exercises with ample opportunity for participant questions and discussions.

Introduction to CMMI helps prepare participants to make valid judgements regarding an organisation's implementation of the process areas. The course is helpful in identifying issues that should be addressed in performing process improvement as structured by the respective representation of the CMMI model.

Key Topics

1. Introduction
2. Process Improvement Concepts
3. CMMI Overview
4. CMMI structure, components and institutionalization
5. CMMI Continuous Representation and Capability levels
6. CMMI Staged Representation and Maturity levels
7. Process Areas and their relationship
8. Interpreting CMMI
9. Application of CMMI and practical insight from industrial experiences

Benefits of the course:

- You understand the importance of having mature processes within an engineering organisation and the rationale for process improvement.
- You are able to describe the architecture and components of the CMMI models (capability levels, maturity levels, process areas, goals and practices).
- You are able to apply the CMMI principles to meet the needs of systems engineering and software engineering organisations.
- You learn how to practically use the CMMI for process- and performance improvement.
- This course is a prerequisite for participating as a full team member in a SCAMPI® appraisal. This course also fulfils a prerequisite requirement for any course requiring an official SEI Introductory CMMI course (e.g. "Intermediate concepts of CMMI").

Staged and Continuous Representations:

1. In the staged representation, process areas are organized by maturity levels. Each level is a layer in the foundation for continuous process improvement using a proven and predefined improvement sequence. The staged representation is used to appraise the organizational maturity. The result is represented by one single number, called the maturity level. The staged representation is also well known to organizations having implemented the previous SW-CMM[®].
2. In the continuous representation, capability levels are used to describe a sequential order for approaching process improvement within each process area. It allows selection of the order of improvement that best meets the organization's business objectives. The continuous representation is used to appraise the capability of process areas. The result is a set of capability levels, each number characteristic for a single process area. The continuous representation is also well known to organizations having implemented the previous EIA/IS-731 (System Engineering CMM[®]).
3. Both representations provide essentially the same content and use the same model components but are organized in different ways.
4. In response to community requests the SEI has upgraded this course compared to the previous Introduction to CMMI, Staged Representation and Continuous Representation courses, incorporating concepts from both.

Prerequisites:

Participants should have a background in systems or software engineering, ideally having had exposure to quality assurance, configuration management, and basic management principles.

Who should attend this course:

- Systems and software engineering managers and practitioners interested in understanding Capability Maturity Model[®] Integration
- Appraisal teams who are going to use the CMMI-based appraisal method in the future (SCAMPI[®])
- Systems and Software Engineering Process Group (SEPG/EPG) members and quality managers / engineers who are leading process improvement
- Those who have already taken one of the existing Introduction to CMMI courses (staged or continuous) do not need to take the new course unless they feel they need a refresher.

Speakers:

Vector Consulting Services is offering the Software Engineering Institute's authorized "Introduction to the CMM[®] Integration - Staged and Continuous" course.

This training will be delivered under license agreement with the Software Engineering Institute. The presenter is an SEI authorized CMMI instructor (the Software Engineering Institute is part of the Carnegie Mellon University, Pittsburgh, USA).