



Specification of information systems

The seminar discusses key economy and technology factors and a pragmatic model for successful specification and planning of investments in information systems .

Length: ½ day

Seminar Description

With state of the art Blueprint Technology for specification of information systems is it today possible to achieve a high precision on the bases for calculation, investment decisions, planning of the realization and validation of delivery.

The seminar focuses on key aspects for successful specification of information systems , size estimation and validation of delivery. The seminar introduces how to successfully perform business process mapping, feasibility study, requirements specification, product specification, size estimation, planning and acceptance testing of information systems . The seminar also discusses the primary root cases for budget overruns, delayed delivery, high maintenance costs and the key focus areas to eliminate these cost driving factors.

The seminar also introduces business process mapping, requirements specification and product specification with the Unified Modeling Language (UML) blueprints and system size and cost estimation with Function Point (FP) analysis for well-founded investment decisions.

UML has a high precision and information density compared to traditional text based requirement specifications and enable precise specification of complex logic. UML enable early verification of correctness and completeness of requirements and system specifications. In addition UML enable seamless integration of business process models/ blueprints with the information system blueprints. UML also have a wide acceptance as an industry standard for information system blueprints.

Specifications with UML are a superior basis for procurement and calculation of information systems and as an interface between the customer and supplier that can be an internal IT-department, an external contractor or a supplier of standard systems.

For size estimation of information systems has Function Points a wide acceptance as the most accurate metric and as a base for economic decisions. Function points can be compared to other units like m², m³, watt etc. and is regarded as the most fair and technology neutral unit for procured and delivered "goods" (i.e. functionality).

The seminar also discusses evaluation and improvement of development organizations with the Capability Maturity Model (CMM) and Six Sigma quality system.

In addition the seminar includes how to seamlessly integrate business process models/blueprints with the information system blueprints. This approach enables a complete view of the information system support for the business and is an excellent base to verify that the system provides a correct support for the customers business and as a base for IT-value analysis.

Objectives

Upon completion you have a good understanding of the key technology to achieve successful identification of customer needs, specification of solution, planning of realization, validation of delivery and IT-value analysis.

Audience

Purchasers of information systems, CEO's, CIO's, IT managers, business managers, project managers, system analysts and all that are interested in economy and technology aspects on specification and estimation of investments in information systems.

Content

The primary cost drivers for information systems development

- Project resolution history
- Major sources for defects
- Requirements creeping
- Dominating cost drivers

Investment model for information systems

- Process areas and phases
- Value of blueprints and metrics
- Model for fixed price procurement, realization and validation
- Continuous control of cost and risk
- The customer-supplier interface
- The business map and mapping to the requirements specification
- Calculation of information system size
- The waterfall process and iterative development
- Verification of specifications

Business maps and requirements specification with UML

- The business map
- Actors and use cases
- Seamless integration of business maps and specifications with activity diagrams
- Organization of functional requirements
- Classification of requirements
- Information system blueprints based on UML (Unified Modeling Language)
- Objects and lifecycle diagrams
- Traceability business map – requirement specification – product specification - implementation
- Validation of delivery (Acceptance testing)
- The complete bid specification
- Cross reference diagrams business map – information system

Measurement and size estimation

- Metrics for Cost Of Quality (COQ)
- Measurements of information systems size with function points
- Analysis of IT value
- Process analysis
- Investment calculation
- Payment model based on utilized functionality

The SEI – CMM/CMMI model

- The CMM/CMMI models five levels and mapping to productivity and quality
- Key process areas
- Visibility into the Software Process for each level
- Examples on measured data for defect density, development cost, estimation precision etc. for various CMM levels

SEI = Software Engineering Institute

CMM = Capability Maturity Model

CMMI= Capability Maturity Model Integrated (Updated version of CMM with other process frameworks)

The seminar includes documentation, a UML specification blueprint example including function point estimation in excel format.