



SPI01: Project Management

Objectives:

1. Define and highlight importance of software project management.
2. Describe the software project management activities
3. Train software project managers and other individuals involved in software project planning and tracking and oversight in the implementation of the software project management process as described in SECC's SPIG Handbook.

Outcomes:

Upon the completion, participant will be able to:

- Develop a project management plan (PMP).
- Track project execution through collecting artifacts and metrics according to procedures described in PMP.
- Revise PMP.

Target Audience:

Software project managers and other individuals involved in software project planning and monitoring and control.



SPI02: Requirements Management

Objectives:

Successful software projects are built on a foundation of well-understood, well documented requirements. However, many organizations get caught in the process details preventing them from collecting, documenting and managing their requirements effectively. The objective of this workshop is to introduce its participants to the skills and procedures fundamental to requirements gathering and analysis, documentation and validation and requirements management throughout the product development cycle. The workshop lays the foundation for actually implementing improved requirements engineering and management practices not just hear about them.

Outcomes:

Upon the completion, participant will be able to:

- Elicit documents and manage requirements.
- Be familiar with and utilize the requirements management process .
- Customize the requirements management process defined in the SPIG Handbook for SMEs.
- Write a Software Requirements Specification document (SRS).
- Define measurements and metrics for the software requirements.

Target Audience:

Anyone involved with defining, understanding or analyzing requirements for a software product will find useful information in this workshop. The primary audience is those individuals directly involved in software development. A secondary audience is marketers, product managers who are charged with specifying the features and attributes of a software product.



SPI03: Software Product Engineering

Objectives:

To provide the basic concepts of the software product engineering process as described in the software process implementation guide for small and medium enterprises (SPIG Handbook).

The workshop provides an excellent first step towards a long-term journey to produce a quality product through improving the software development process.

Outcomes:

Upon the completion, participant will be able to:

- Utilize standards, methodologies and techniques to promote producing quality product.
- Utilize standard processes for engineering the product.
- Choose an appropriate product life cycle to guide software development process.
- Choose an appropriate integration strategy for the assembly of the product components.
- Build in quality factors such as reliability, maintainability, expandability ...etc.
- Realize the strategic importance of concurrent engineering (integrated product & process development).
- Apply appropriate techniques for verifications & validation throughout the SDLC.
- Understand standards for testing results reporting
- Apply standard documentation for the software development work products.

- Practical guidance
- Exercises to facilitate the understanding the concepts being presented.
- Discussion of related issues will be allowed providing a forum to share experience.

Target Audience:

- Software Development / Design Engineers
- Software Testing Engineers



SPI04: Configuration Management

Objectives:

- Define CM terminology.
- Illustrate CM organizational elements and responsibilities.
- Describe CM policy, process and procedures for SME.
- Perform the CM activities.

Outcomes:

Upon the completion, participant will be able to:

- Establishing the Configuration Management Plan for a Project.
- Be a member of a Configuration Management Group.

Target Audience:

- Project Managers.
- Configuration Management Group Members.
- Any person who will be in charge of a Configuration Management role.
- Process Improvement members Group.



SPI05: Peer Reviews

Objectives:

To provide the basic concepts of the Peer Review Processes as described in the software process implementation guide (SPIG) Handbook for small and medium enterprises.

The workshop provides an excellent first step to develop and improve the skills of the organization attendees about peer reviews to enable him/her to manage a software project to a successful conclusion.

Outcomes:

Upon the completion, participant will be able to:

- Utilize standards, methodologies and techniques to promote producing Quality product.
- Utilize the phases and components of the processes in the SPIG Handbook.
- Understand the objectives, principles and methods of peer reviews.
- Apply standard techniques in planning and organizing peer reviews.
- Realize the roles of reviewers.
- Apply appropriate techniques how to evaluate readiness and completion criteria for peer reviews.
- Build in capabilities of conducting, facilitating and reporting peer reviews.
- Apply standard techniques in tracking and confirming actions coming out of peer reviews
- Expose the peer Review leaders and participants to a peer reviews during software development project life cycle using real-life case studies.
- Understand standards for testing results reporting

Target Audience:

Any member who will participate in peer reviews as well as quality members and process improvement members.



SPI06: Quality Assurance

Objectives:

The aim of the course is to introduce the trainees to software quality assurance (SQA), in which it is the concern of every software engineer to improve quality, reduce cost and improve product time-to-market. The course aims to cover the Software Quality Assurance fundamentals, basic concepts, terminologies, standards as well as QA measurements and to show that the use of metrics is an important part for developing a strategy to improve the quality of both software processes and work products. The course topics also take into consideration the SQA Plan, the SQA Group (its roles and responsibilities), and the QA activities which are performed on every software project, the potential sources of risk and some simplified guidelines and templates, all of which are included in the SQA Process within the SPIG Handbook.

Outcomes:

Upon the completion, participant will be able to:

- To prepare the trainees to become active participants in implementing the SQA Process within their companies.
- Common understanding of basic QA concepts and following the SPIG Handbook.
- Trainees will be able to :
 - i) Apply the concepts gained in setting up their company's QA standards.
 - ii) Develop QA plans.
 - iii) Set simple measurements and metrics.
 - iv) Run quality checks on software products and processes.

And

- v) Write QA reports.

Target Audience:

Managers of small companies, and/or potential members of QA groups within small and medium-sized companies.