



Software Inspection and Review Techniques



Description:

Software inspections and technical reviews detect errors early in the software development cycle, when those errors are least expensive to correct. Furthermore, by participating in software inspections and technical reviews, developers improve their own skills, thus reducing the occurrence of errors in the future. Leading software companies have found that a properly implemented program of inspections and technical reviews drastically reduces the time required for testing, debugging, and rework, and dramatically improves the quality of the resulting product. This workshop, Software Inspection And Review Techniques, provides participants with the opportunity to learn about and experience using these powerful software quality tools. In the workshop, we address the following questions:

- Why do leading software developers rely on inspections and technical reviews to produce high quality software in the most cost effective manner?
- When should you use inspections? When should you use technical reviews? How do these tools differ?
- What is the purpose of an inspection? What are the roles and responsibilities? What materials are necessary for a successful inspection?
- What is the purpose of a technical review? What are the roles and responsibilities? What materials make the review a success?
- What can you do to ensure that the inspection meetings and technical reviews are constructive, effective and efficient?
- How can your organization gain the greatest payoff from inspections and technical reviews?

Software Inspection and Review Techniques presents and reinforces the skills and abilities necessary for an individual to participate and/or to lead a software inspection or a technical review. This workshop concentrates on the purpose of each step in the inspection or review process, and on the roles and responsibilities involved. Emphasis is on doing, not theorizing. The workshop exercises allow participants to practice planning and conducting several inspections and/or reviews. Participants leave the workshop with sample plans, checklists, forms, and procedures.

Duration:

2 days

Learning Objectives:

- Describe the importance of quality workproducts in creating quality software
- Describe what workproducts should be inspected, what work products should be reviewed, and how to schedule the inspections or reviews appropriately
- Identify who should be involved, what materials are necessary, and what tasks they should perform to complete a successful inspection or review
- Create a constructive environment for the inspection or review
- Gather and apply metrics on the inspection process
- Describe how to use software inspections and technical reviews effectively in their own software development environment

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In this workshop, participants learn by doing. Each participant brings to the workshop, a workproduct for which they are responsible. As each step of the inspection or review process is discussed, the participants work together to carry out that step on their work products. These steps include planning, preparing, running constructive meetings, and measuring the effectiveness of the process. Consequently, participants leave the workshop with solid experience in all aspects of software inspections and technical reviews, and with sufficient knowledge to adapt the process to their own environment.

Suggested Audience: Anyone involved in software development can benefit from learning about and using software inspections and reviews. This workshop is designed for software engineers, project managers, test engineers, and training and documentation developers who are developing, modifying, or supporting a software product.

Prerequisites: There are no prerequisites for this workshop. The only real requirement for attending the workshop is a commitment to quality, and a willingness to inspect one's own recently created work products. It is helpful for participants to have some familiarity with software development and quality assurance practices.

Topics Covered:

Introduction

- Participant Introductions
- The Software Challenge
- The Inspections Solution

Inspections and Quality

- Defining Quality
- Importance of Workproducts
- Inspections and Quality

The Software Inspection Process

- Inspection Materials, Steps, and Team Responsibilities
- Inspection Results
- Comparison with Other Verification Methods

Planning an Inspection

- Scheduling and Getting Started
- Collecting the Information
- Identifying the Inspectors

Facilitating the Inspection

- Facilitation Techniques
- Inspection Meetings
- Coordinating the Rework

Measuring the Process

- Importance of Measurements
- Analyzing the Results

Implementing Inspections

- Inspections and Process Improvement
- Adapting the Process
- Participant Follow-up Plan

Conclusion

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