

# Software Peer Reviews & Inspections

## Training Course Offered by The Westfall Team

**Software Peer Reviews & Inspections** is a 2-day course designed to provide a comprehensive knowledge base and practical skills for anyone interested in implementing or improving software peer review and formal inspection techniques and practices in their organization. This course includes training on desk checking, walk-through and formal inspection processes. This course starts with a discussion of peer review basics, including the importance of peer reviews and what work products should be peer reviewed. Students learn to utilize risk-based techniques for determining the type of peer review to hold. Selecting the right people to participate in a peer review is discussed.

Attendees will learn various techniques to improve their desk checking skills in order to identify more significant defects. The course also includes an overview of the steps in the walk-through processes and practices a team walk-through.

The formal inspection process is discussed. Students learn to moderate an inspection, including planning the inspection, holding a kick-off, preparing for the inspection, conducting the inspection meeting, and performing corrective action and follow-up. The course ends with an overview of metrics for tracking the inspection process and analyzing its effectiveness.

**Method of Instruction:** This course is taught through lecture and interactive discussion. Actual examples from the software industry are utilized to make the information relevant. Throughout this course, learned skills are practiced using team exercises. The emphasis of this course is on techniques that allow the attendees to transition the skills learned in this course to their own work environments. For on-site courses, peer reviews can be practices during the exercises utilizing actual work products from the attendee's organization.

**Target Audience:** Software peer review moderators, software developers, testers, software quality engineers, project managers, functional managers, and other stakeholders, who will be involved in planning, moderating and participating in software peer reviews.

**Course Objectives:** Upon successful completion of this course you will be able to:

- Understand the basic concepts and benefits of peer reviews
- Utilize various techniques to improve your desk checking skills
- Describe the steps in the walk-through process
- Conduct effective and efficient inspections
- Facilitate inspections as a moderator

### Detailed Outline:

#### I: Peer Reviews – The Basics

1. Why Peer Reviews?
  - Reviews Defined
  - Types of Reviews
  - What is a Peer Reviews
  - Peer Reviews are a V&V Technique
  - Where Do Peer Reviews Fit?
  - People Make Mistakes
  - Increasing Costs of Fixing Defects
  - Benefits of Peer Reviews – Finding Defects
  - Some Industry Results
  - Other Benefits of Peer Reviews
  - Peer Reviews & the SEI CMM®
2. What to Peer Review
  - IEEE/EIA 12207
  - What Should Be Peer Reviewed
3. Risk Based Peer Reviews
  - Informal vs. Formal Peer Reviews
  - Types of Peer Reviews
  - Which Type to Choose
  - Risk Based Peer Reviews
  - Peer Review Sufficiency
4. Who Participates in Peer Reviews
  - Selecting Reviewers
  - Who is the Author?
  - Who is a Peer?
  - Diversity
  - Specialists
  - Consider the Customer/Supplier Chain
5. Management's Responsibility

#### II: Desk Checking & Walk-Throughs

1. Desk Checking
  - Informal Desk Checking Process
  - More Formal Desk Checking Process
  - Desk Checking – Examples
  - Desk Checking Techniques
  - "Review it Again, Sam!"
  - Mental Execution
  - Test Cases
  - Consider What's Not There
  - Don't Sweat the Small Stuff
  - Keyword Searches
  - "Like Father, Like Son"
  - Writing a "Good" Defect Report
  - Desk Checking – Exercise
2. Walk-Throughs
  - Walk-Through – Examples

# Software Peer Reviews & Inspections

## Training Course Offered by The Westfall Team

- Walk-Through Process
- Walk-Throughs vs. Inspections
- Soft Skills for Walk-Throughs
- Walk-Through – Exercise

### III: Formal Inspections

#### 1. Inspection Process

- Inspection Goal
- General Rules
- Inspection Process
- “Egoless” Inspections
- Inspection Roles
- Moderator
- Author
- Reader
- Recorder
- Inspectors

#### 2. Planning

- Inspection Planning Objectives
- Planning Process
- Moderator Identification
- Inspection Entry Criteria
- One or More Inspections
- Inspection Team Size
- Assigning Roles
- Kickoff Meeting or Not?
- Logistics
- Inspection Announcement
- Inspection Package
- Work Product Checklists
- Review Report
- Inspection Planning – Exercise

#### 3. Kickoff Meeting

- Kickoff Meeting Objectives
- Kickoff Meeting Process
- Areas of Special Focus
- Kickoff Meeting Guidelines
- Kickoff Meeting – Exercise

#### 4. Preparation

- Preparation Objectives
- Preparation Process
- Preparation Rules & Guidelines
- Inspection Log
- Inspection Preparation Summary
- Preparation – Exercise

#### 5. Inspection Meeting

- Inspection Meeting Objectives
- Inspection Meeting Process

- Inspection Log
- Phantom Inspector
- Lessons Learned
- Inspection Meeting Rules & Guidelines
- Watch for Problems
- Inspection Meeting – Exercise

#### 6. Rework & Follow-Up

- Rework Objectives
- Rework Process
- Inspection Log
- Follow-Up Objectives
- Follow-Up Process
- Inspection Log
- Complete Review Report
- Exit Criteria

#### 7. Metrics & Analysis

- Inspections – What Data to Collect
- Selecting Metrics
- Goal/Question/Metrics Paradigm
- Goal – To Perform Inspections
- Number of Inspections
- Total Inspection Effort
- Inspection Coverage
- Goal – Effectively Perform Inspections
- Defect Density per Inspection Rate
- Defects Found
- Defect Logging Rate
- Goal - Process & Product Improvement
- Defect Escapes
- Phase Containment Effectiveness
- Defect Detection Efficiency
- Defect Prone Components
- Metric Do's & Don'ts

### Other Peer Review Courses Include:

#### Software Peer Reviews & Inspections for

**Participants:** A ½-day course designed to provide a working knowledge base and practical skills for anyone interested in participating in software peer review and formal inspections.

**Customized Peer Review Courses:** Our peer review courses are modularized so that they can be easily customized for in-house course offerings that focus on the specific content and topics needed to meet your organization's exact training requirements. For in-house courses, class exercises can also be tailored to include actual examples from your organization in order to make the training even more relevant to your environment.

**Software Peer Reviews Course  
Offered by The Westfall Team**

**For more information about these and other course offered by The Westfall Team:**

**Visit our website at: [www.westfallteam.com](http://www.westfallteam.com)**

**Send an email to: [lwestfall@westfallteam.com](mailto:lwestfall@westfallteam.com)**

**Or call: 972-867-1172**

