

17 Software Reviews

- A meeting conducted by technical people
- A technical assessment of a work product created during the software engineering process
- Software quality assurance mechanism
- A training ground

It is not a project summary or progress assessment

Not a meeting intended solely to impart information

Not a mechanism for political or personal reprisal

Cost impact of software defects:

Error: a quality problem found before the software is released to end users.

Defect: a quality problem found only after the software has been released to end-users.

- Error and defect have different economic, business, psychological, and human impact.
- Review activities have been shown to be 75% effective in uncovering design flaws.

Defect Amplification and Removal:

Defect amplification is a term used to describe how a defect introduced early in the software engineering workflow and untested, can and often will be amplified into multiple errors during design and more errors in construction.

Review Metrics:

Total errors found, Error total = (Error minor) + (Error major)

Error density = (Error total) / WPS

WPS: Unit of work product reviewed.

The more inspection with a consistent effort reduces time to deploy the product.

Formal Technical Reviews (FTR):

Objectives of an FTR are:

- To uncover errors in function, logic, or implementation for any representation of the software
- To verify that the software under review meets its requirements
- To ensure that the software has been represented according to predefined standards.
- To make projects more manageable.

Review Meeting:

- Between three and five people should be involved in the review

- Advance preparation should occur but should require no more than two hours of work for each person
- The duration of the review meeting should be less than two hours.

Review Outcome:

- Accept the product without further modification
- Reject the product due to severe errors
- Accept the product provisionally.

Review Players:

Producer: The individual who has developed the work product.

Review leader: Evaluates the product for readiness, generates copies of product materials.

Reviewer(s): Expected to spend between one and two hours reviewing the product.

Recorder: reviewer who records all important issues raised during the review.

During the FTR, the recorder records all issues raised and summarizes these in a review issues list to serve as an action list for the producer.

Postmortem Evaluations:

- A postmortem evaluation (PME) is a mechanism to determine what went right and what went wrong with the software engineering process and practices applied to a specific project.

Agile Reviews:

- During the sprint planning meeting, user stories are reviewed and ordered according to priority.
- The daily Scrum meeting is an informal way to ensure that team members are all working on the same priorities and try to catch any defects that may cause the sprint to fail.