

# Formal Technical reviews

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A formal technical review or FTR is done to detect early bugs in software development. If bugs are detected early, the cost of fixing them is much less, than fixing them when the product is finished.

## Participants

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Typically an FTR is done with a team of reviewers. The roles and the amount of reviewers differs from review to review.

### Inspection

- Producer
- Moderator
- Reviewers

### PSP "Personal Software Process"

A PSP is conducted individually so the only role is the producer in this case.

### 414 Technical review

- Producer
- Reviewer

## Roles

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### Moderator

The moderator leads and prepares the review meetings. Ensuring adherence and managing discussions.

### Author/Producer

The writer of the code

### Reviewer

People that review the code and look for bugs or design flaws.

## Process

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## Planning

Gather the review package, assemble a team for the reviews. Determine dates for the review meetings.

## Orientation

Author provides an overview of the project. Reviewers get the review package.

## Preparation

Find the maximum number of non-minor issues. Review the code and fill in the review forms. Note critical, severe and moderate issues on the review form. Minor issues and question can be asked on the work product.

## Review meeting

Create a listing of all non-minor issues found. Create group synergy. Improve individual reviewing skill, by watching others. Create a shared knowledge of the work product.

## Rework

Assess each issue, determine if it is a defect and remove the defect if necessary. Minor issues can be resolved as necessary. The actions taken to resolve an issue are also filled in on an author data sheet.

## Verify

Assess the reworked product and the inspection process and fail or pass the product as necessary.

## PSP (personal reviews) process

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### Generate checklist

Generate a checklist based on defect history.

### Design/Code review

Apply the checklist at the end of each coding phase and look for defects.

### Evaluation/Improvement

Calculate the time saving of the review and the effectiveness of the checklist. If the checklist is not effective enough, add more items to it.

# 414 Technical Review

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A 414 tehcnical review is performed by two people: the producer and the reviewer. It is driven by top-down checklists that are part of the requirements. A 414 review is not formally measured or evaluated.

## Critical success factor: Measurement

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We measure:

- Time spent on each phase
- Number of issues of each type discovered
- Utility of review meeting, checklist, etc.