

Inspections

⇒ Fagen (1970s) - peer review of code

- ↳ Fresh look with no assumptions
- ↳ Less expensive to detect fault when inserted
- ↳ Versus cost of testing, isolating, repair and retest

⇒ 3 step process

- | | |
|-----------------------|-------------|
| ↳ Individual analyses | preparation |
| ↳ Team analyses | collection |
| ↳ Repair | repair |

⇒ Factors in reviews

- ↳ Structure - how the steps are organized into a process
- ↳ Techniques - how each step is carried out
- ↳ Inputs - reviewer ability, code quality
- ↳ Context - interactions, project schedule, personal calendars
- ↳ Technology - tool support

Inspections

⇒ Benefits of reviews - top 5 reasons often given

↪ Synergy

- Interaction among team members generates more faults detected

↪ Education

- Less experienced reviewers learn from experienced reviewers

↪ Schedule deadline

- Provides for a planned event

↪ Competition

- Try harder to improve

↪ Requirement

- Process must have it

⇒ Problem

↪ Review process has become a very heavy weight process

- Thru addition over the years

⇒ What are the cost factors

↪ Does the original basis from the 70s still hold

↪ What are the cost tradeoffs today?

Inspections

- ⇒ How do we make trade-offs between
 - ↳ Minimum interval
 - ↳ Minimum effort
 - ↳ Maximum effectiveness
- ⇒ Review process
 - ↳ Preparation
 - Read separately, detect defects
 - ↳ Collection
 - Team meeting to collect/collate defects
 - ↳ Repair
 - Author then repairs
- ⇒ Comparison comment
 - ↳ Previous research and changes focused on structure
 - Only affects interval, not effectiveness
 - ↳ Effectiveness depends on technique and input
 - Recent research focused on techniques