

Code Review

Group 3

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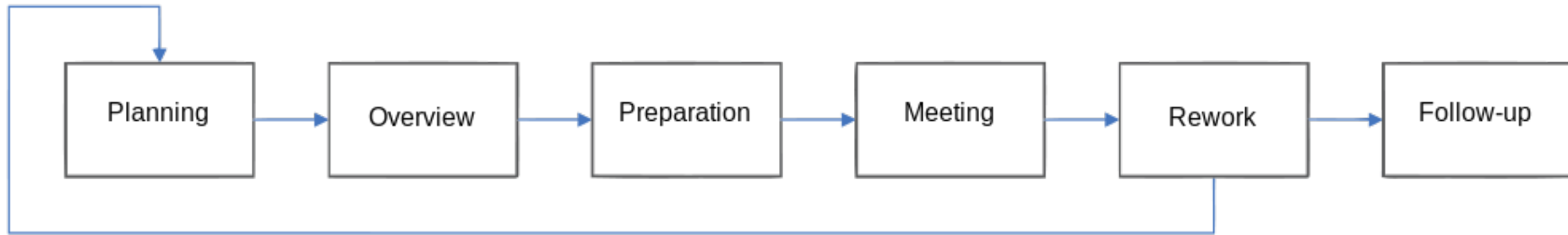
Pam Anderson

What is code review?

- systematic examination of a code
- 2 categories of code review:
 - formal code review
 - lightweight code review

Formal Code Review

- extremely thorough
- time consuming
- Fagan's inspection



Lightweight Code Review

- over-the-shoulder
- email pass-around
- pair programming
- tools

The importance of code review

- find bugs
- produce maintainable code
- improve design
- follow coding conventions
- testing

Good practices

- annotate source code before review
- good code review culture

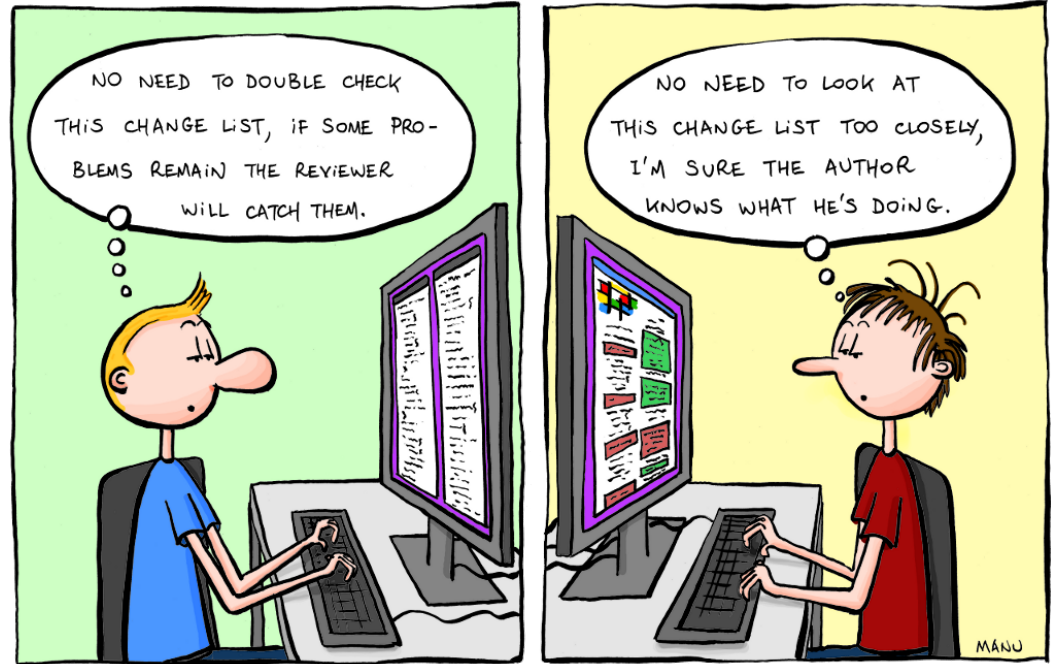


Image: <http://www.bonkersworld.net/code-reviews/>

Good practices

- < 200-400 lines of code at a time
- < 300-500 LOC/hour

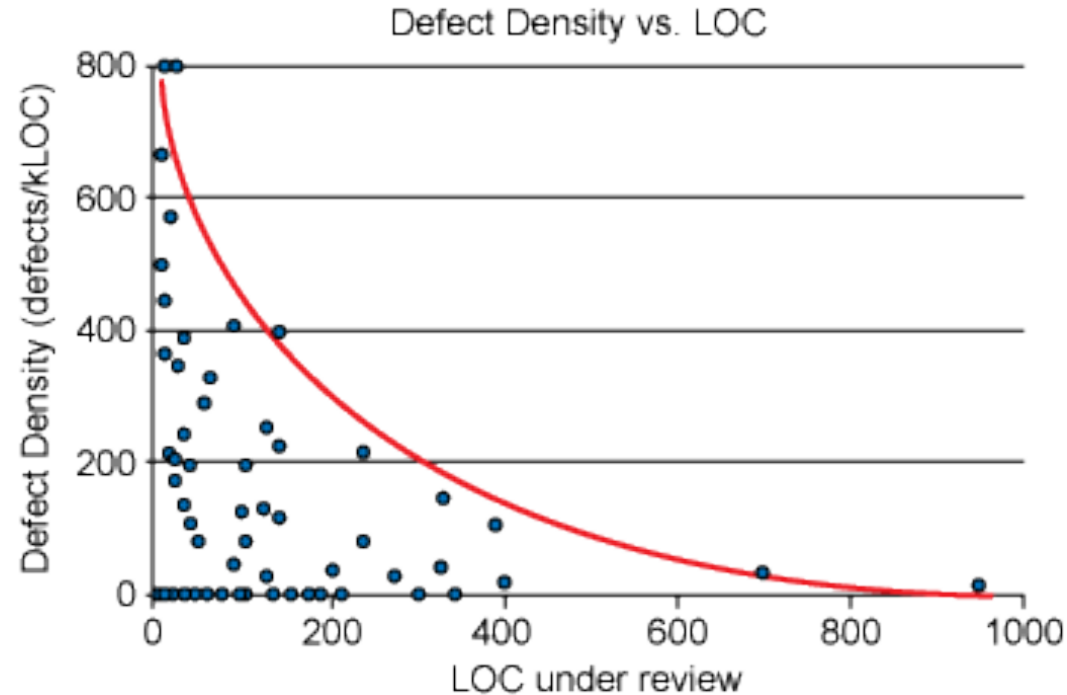


Image: <http://www.ibm.com/developerworks/rational/library/11-proven-practices-for-peer-review/>

Tools for code review

- Reviewboard
- Gerrit
- Phabricator

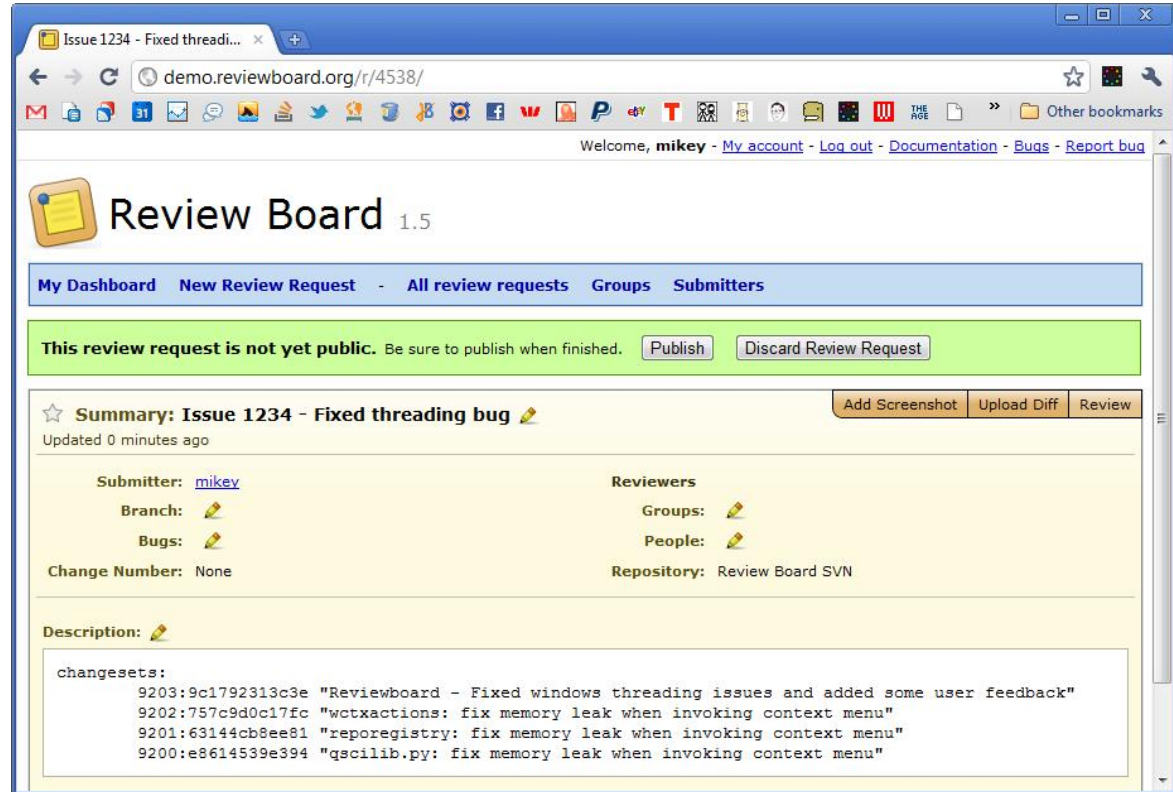


Image from: <http://www.mikeyd.com.au/wp-content/uploads/2010/11/reviewboard.jpg>

Pre vs Post Commit

| | Pros | Cons |
|-------------|--|--|
| Pre-commit | <ul style="list-style-type: none">- meet coding standards before merging- ensure code is reviewed | <ul style="list-style-type: none">- lower productivity- could commit different code |
| Post-commit | <ul style="list-style-type: none">- continuously commit changes- everyone can see changes | <ul style="list-style-type: none">- buggy code committed- harder to fix issues that come up |

Exercise

A client wants you to produce a program that takes in a user's input to fill a list consisting of 5 numbers, and print the list and the reversed list.

Sources

Cohen, Jason. "11 Proven Practices for More Effective, Efficient Peer Code Review." *DeveloperWorks*. N.p., 25 Jan. 2011. Web. 17 Sept. 2014. <<http://www.ibm.com/developerworks/rational/library/11-proven-practices-for-peer-review/>>.

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