

# Want Code Quality? Just Ask

The Art of the Code Review

# Who am I?

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thePlatform

**DISCLAIMER:** The opinions expressed in this presentation are my own, and do not necessarily reflect those of thePlatform.

# First a note: Dunning-Kruger Effect

Illusory Superiority and Impostor Syndrome

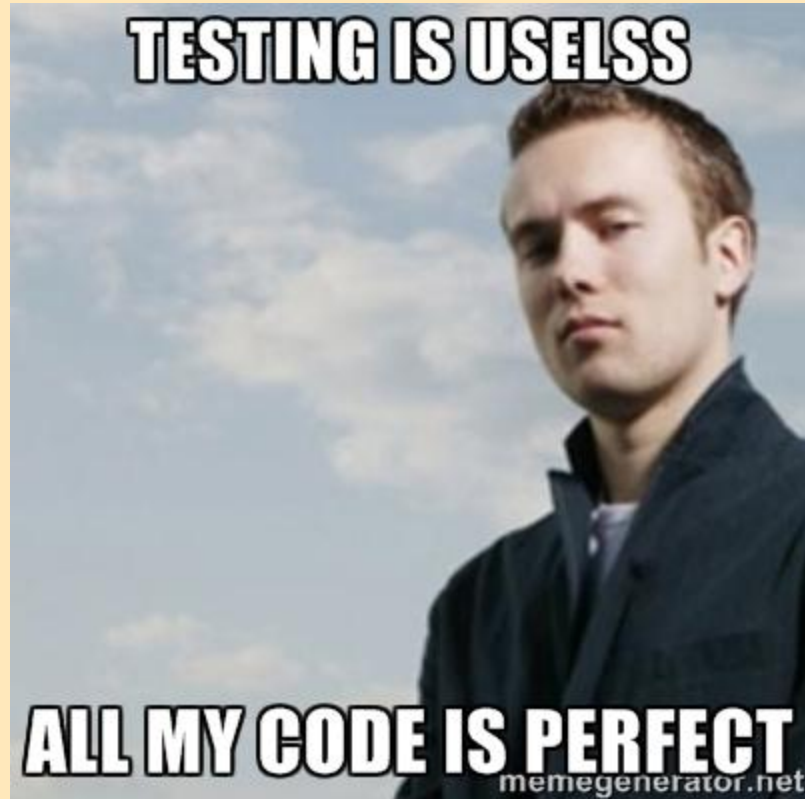
"The Foole doth thinke he is wise, but the  
wiseman knowes himselfe to be a Foole."

- William Shakespeare, *As You Like It*

“Code Review,” you keep using that term...



# Why code review?

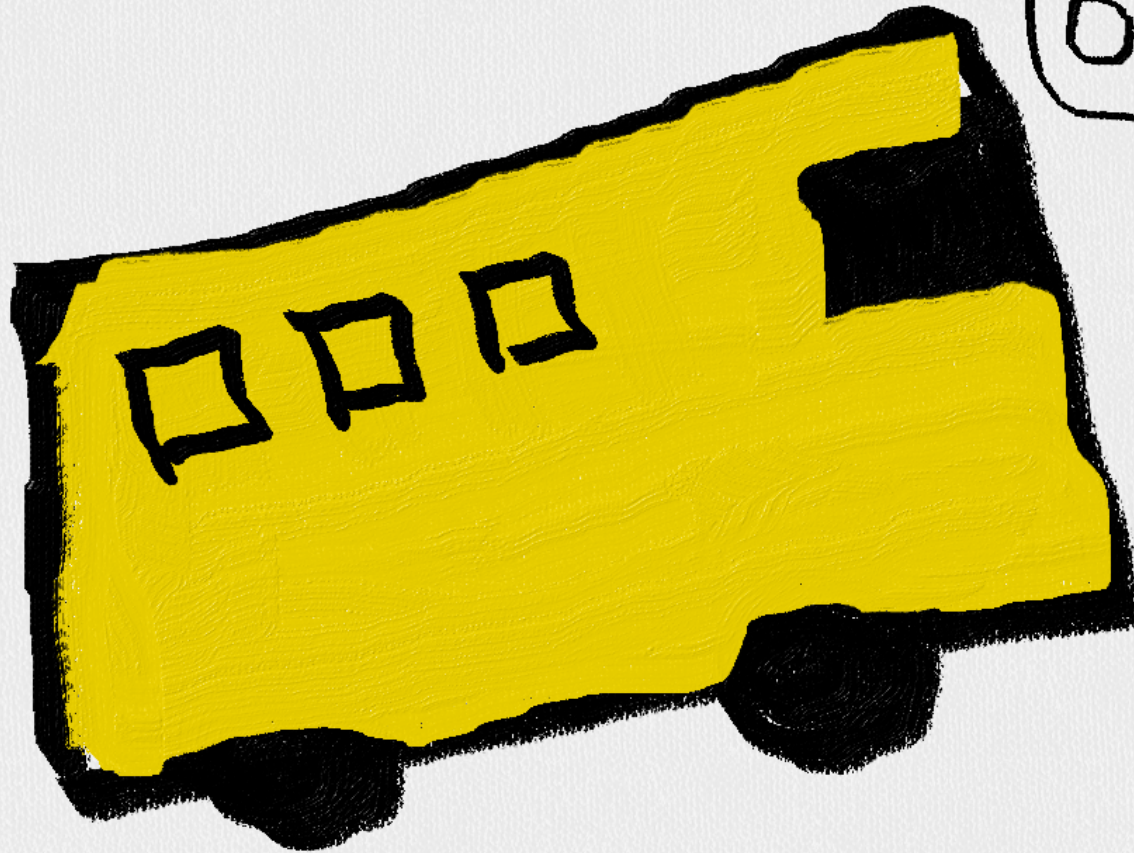


# Mentorship





# The bus factor



# Find bugs early





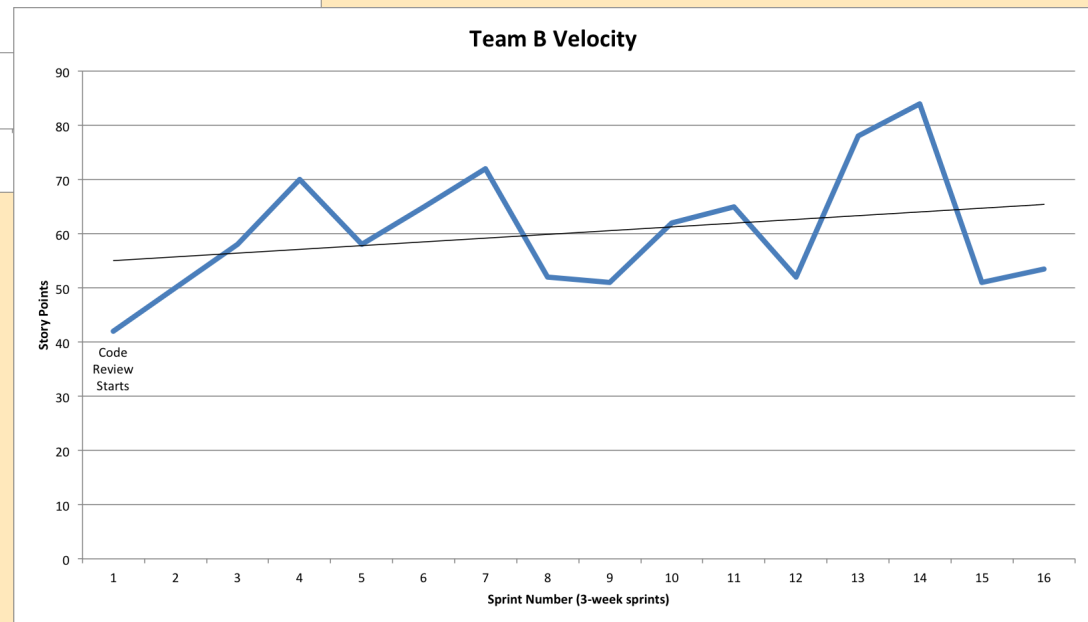
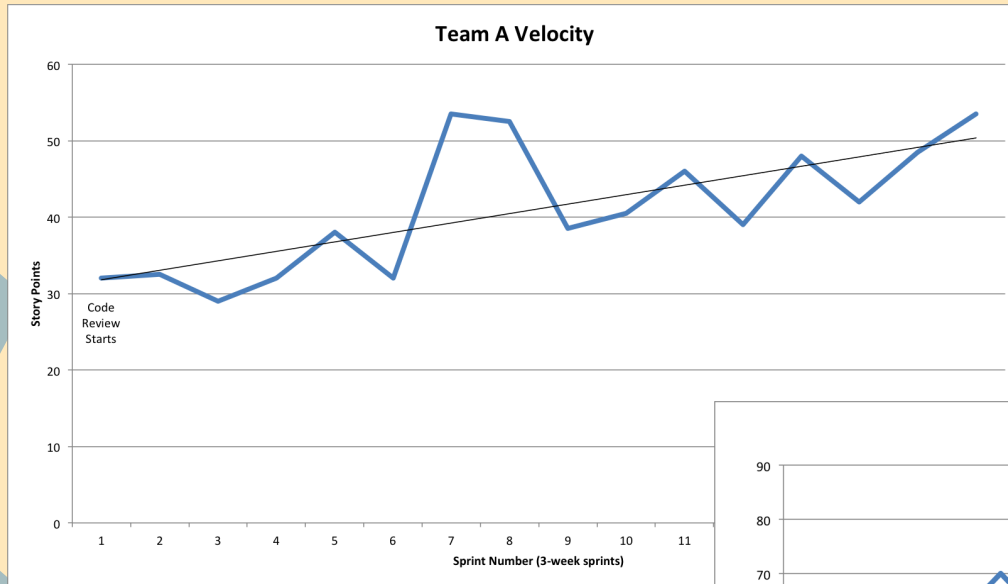
# Bugs cost more later!

**“Finding and fixing a software problem after delivery is often 100 times more expensive than finding and fixing it during the requirements and design phase.”**

Barry Boehm

Director Emeritus, USC Center for Systems  
and Software Engineering

# Does it work?



# HOWTO: Code Review

1. Write some tests.
2. Write some code.
3. Show said tests and code to another coder.
4. Take constructive criticism.
5. Repeat 1-3 until satisfied.
6. Merge your code.
7. Go have a beer (or cranberry juice)!

# But really... how to code review



Look at the logic!

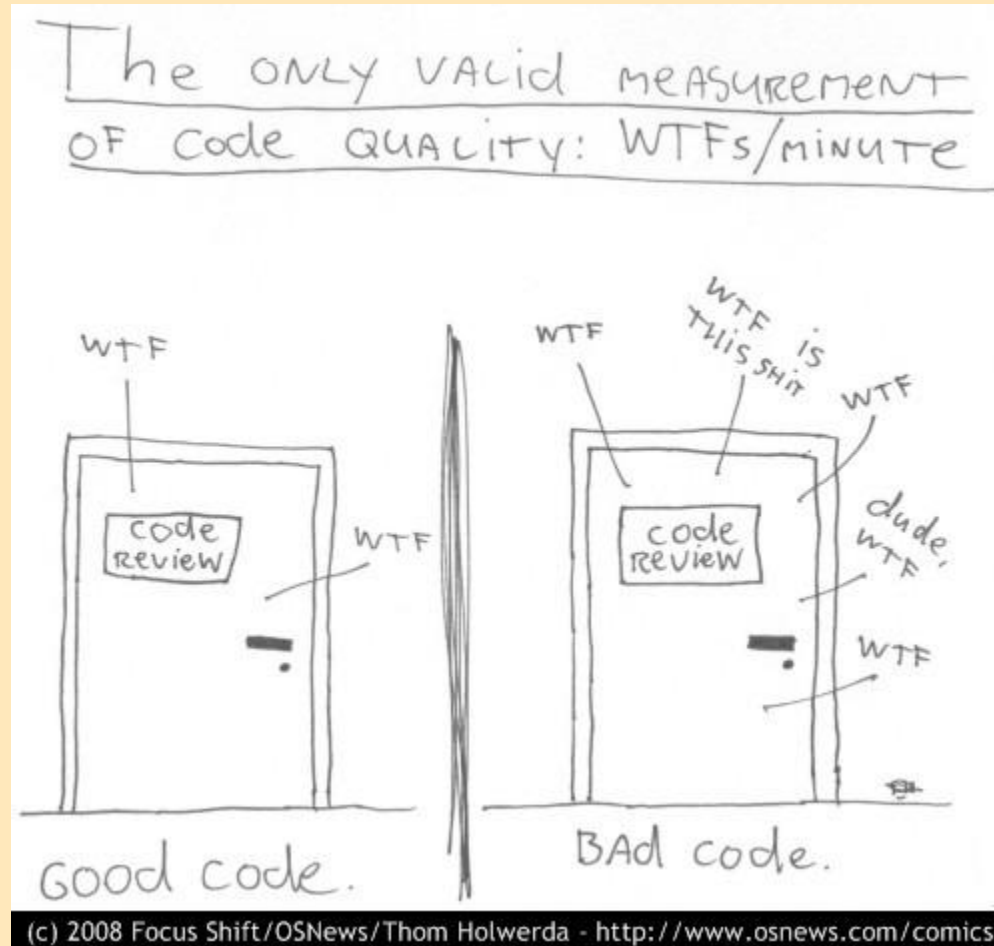




# Naming matters



# Call out the WTFs



# Beginner's Mistakes

Watch out for these beginner mistakes...





DON'T PANIC

# Think twice before commenting...



mimiandunice.com

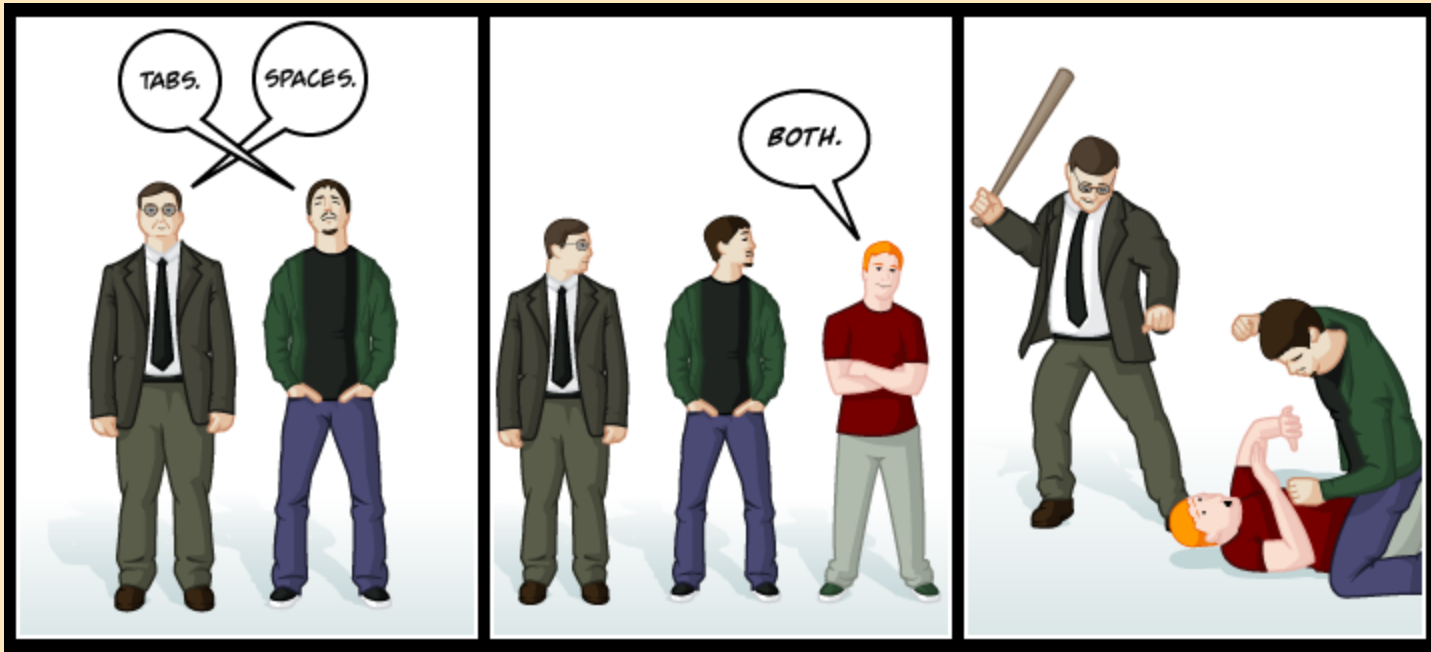
UNLIKE **SOME**  
PEOPLE I KNOW.

A cartoon panel with a light blue background. On the left, the same white dog with long black ears and a black nose looks towards the right. On the right, the same white dog with floppy black ears and a black nose has its mouth open as if speaking. A speech bubble points from the second dog to the first, containing the text "UNLIKE **SOME** PEOPLE I KNOW." The word "SOME" is in bold.

<http://adorefamily.wordpress.com/2012/09/17/passive-aggressive/>

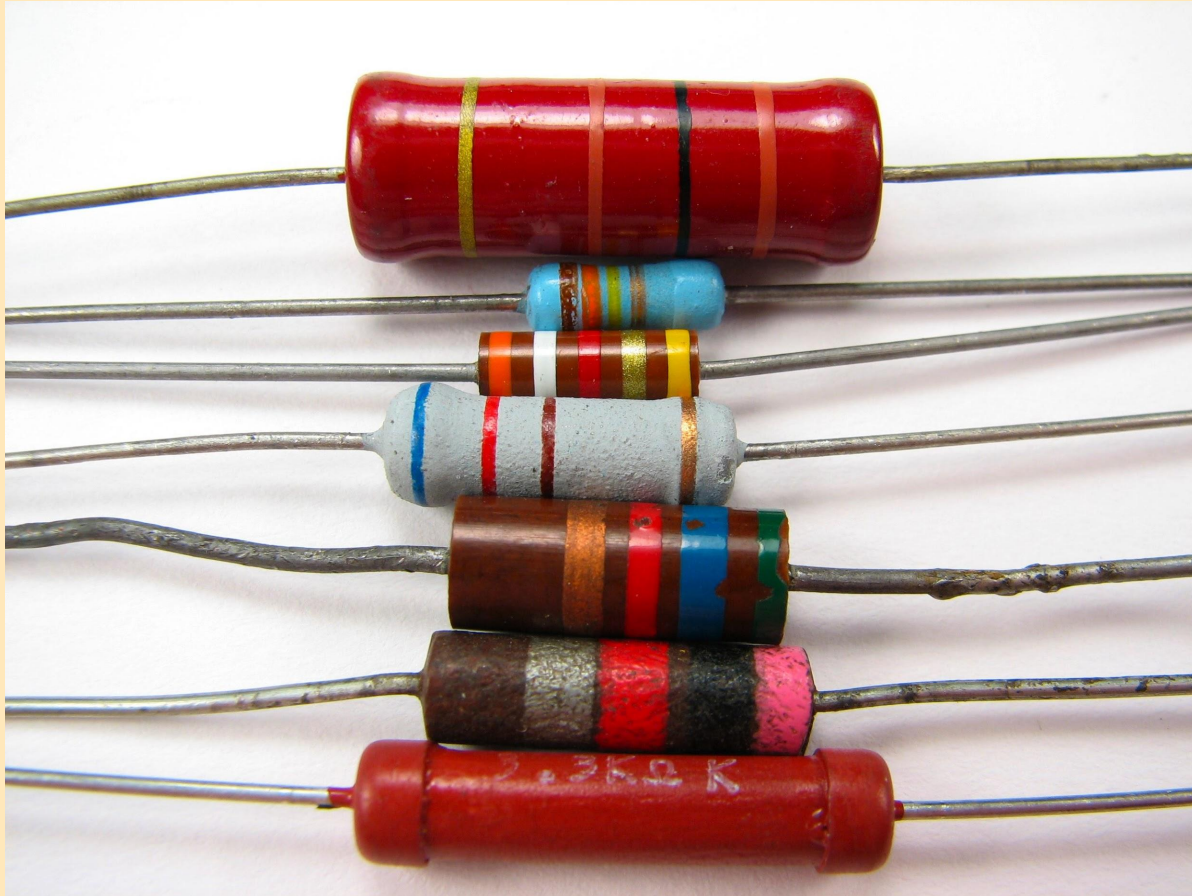


# Tabs vs. spaces?



original comic by [Steve Napierski](#)

# Convincing resistors

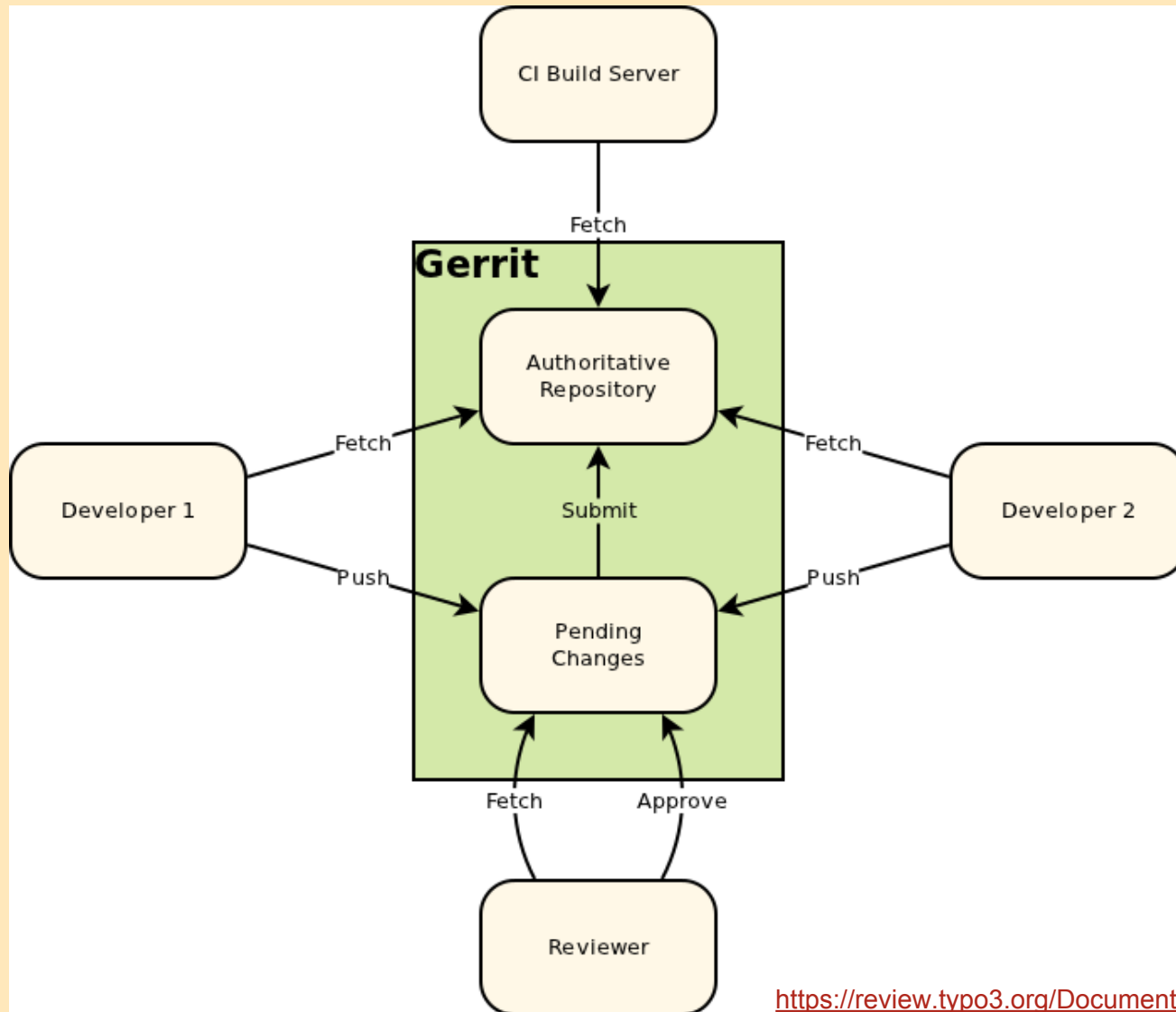


# Our toolchain

- git
- gerrit
- AnthillPro



# How Gerrit works



# Qt Open Governance Code Review



## Change I8f3eb7d2: Compile fix

Change-Id:	I8f3eb7d21074fec00de870d33e493842286222ee
Owner:	<a href="#">Friedemann Kleint</a>
Project:	<a href="#">qt-creator/qt-creator</a>
Branch:	<a href="#">master</a>
Topic:	
Uploaded:	May 23, 2011 8:47 AM
Updated:	May 23, 2011 8:49 AM
Status:	<b>Merged</b>

Compile fix  
Change-Id: I8F3eb7d21074fec00de870d33e493842286222ee

[Permalink](#)

Reviewer	Code Review
<a href="#">Christian Kamm</a>	<input checked="" type="checkbox"/> Looks good to me, approved

**Included in:**

**Dependencies**

**Patch Set 1** 713c86be1f84394aac7a57f4c89fbd2ed9245e36

Author:	<a href="#">Friedemann Kleint</a> <Friedemann.Kleint@nokia.com> May 23, 2011 8:47 AM
Committer:	<a href="#">Friedemann Kleint</a> <Friedemann.Kleint@nokia.com> May 23, 2011 8:47 AM
Download:	<a href="#">checkout</a>   <a href="#">pull</a>   <a href="#">cherry-pick</a>   <a href="#">patch</a>   <a href="#">Anonymous HTTP</a>   <a href="#">SSH</a>   <a href="#">HTTP</a> git fetch ssh://kkohne@codereview.qt.nokia.com:29418/qt-creator/qt-creator refs/changes/51/51/1 && git checkout FETCH_HEAD

Review

	File Path	Comments	Size	Diff	Reviewed
▶	<a href="#">Commit Message</a>			<a href="#">Side-by-Side</a>   <a href="#">Unified</a>	
M	<a href="#">src/libs/qmljs/qmljsscanner.cpp</a>		+4, -4	<a href="#">Side-by-Side</a>   <a href="#">Unified</a>	
			+4, -4		

**Comments** [Expand Recent](#) | [Expand All](#) | [Collapse All](#)

**Christian Kamm** Patch Set 1: Looks good to me, approved 8:49 AM

**Christian Kamm** 8:49 AM

Change has been successfully cherry-picked as a3c9cb995d341d08519a4787f53ff95acca93b29.



# Alternative toolchains

- git
- GitHub Pull Requests
- Jenkins
- Travis CI



# Old school

- Review by hand



# Cool side effects of code reviews



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- More trust for your team
- Less bugs make it to your customers
- Developers learn from each other

# What about pair programming?



# The moral of the story

- Reviewing code makes:
  - Your team stronger
  - Your code cleaner
  - You a better developer

Trevor Lalish-Menagh (@trevmex)