Waltzing with Branches

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ACCU Conference 2016

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Cargo Cult Software Engineering

"They go through the motions of looking like effective organizations that are stylistically similar. But without any real understanding of why the practices work [...]"

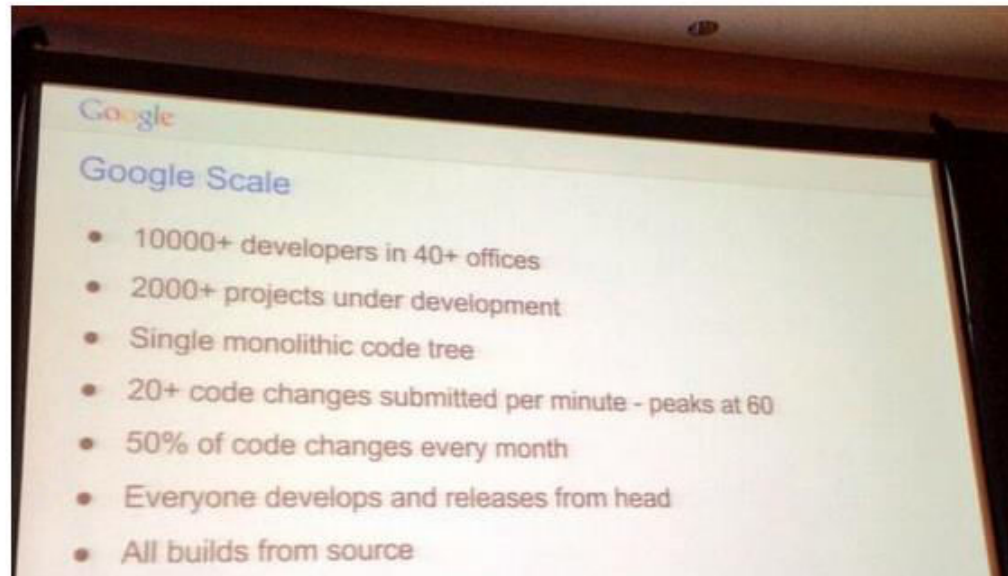-- Steve McConnell
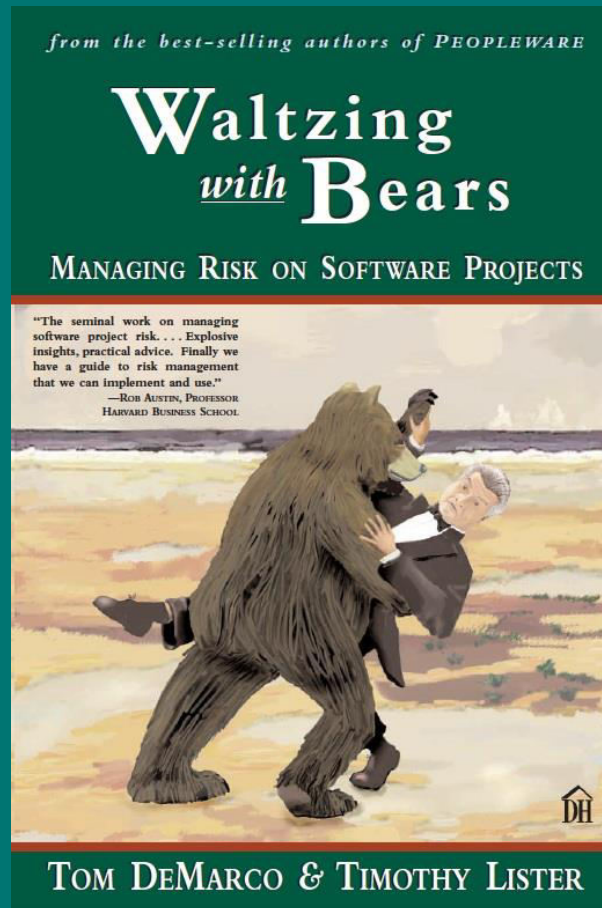
Another cult is born...

Jez Humble
@jezhumble

Google does everything off trunk despite 10k devs across 40 offices. @jmleyba #qconsf

Google

Google Scale

- 10000+ developers in 40+ offices
- 2000+ projects under development
- Single monolithic code tree
- 20+ code changes submitted per minute - peaks at 60
- 50% of code changes every month
- Everyone develops and releases from head
- All builds from source

https://twitter.com/jezhumble/status/400071665482088448

Read the small print!

- All builds from source
- >100 million test cases executed per day

Waltzing with Bears

<<<<<<<<<<<<

Knox in box.

Fox in socks.

Knox on fox
in socks in box.

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Socks on Knox
and Knox in box.

Fox in socks
on box on Knox.

>>>>>>>>>>>>

"RISK MANAGEMENT IS PROJECT MANAGEMENT FOR ADULTS"

"The business of believing only what you have the right to believe is called *risk management*."

-- Waltzing with Bears

"Risk management is the process of thinking out corrective actions before a problem occurs, while it's still an abstraction."

-- Waltzing with Bears

Risk: Loss of Productivity

Risk: Loss of Confidence

http://melvillegroup.com/wp-content/uploads/2013/08/fear-man-biting-nails.jpg

Risk Management Strategies
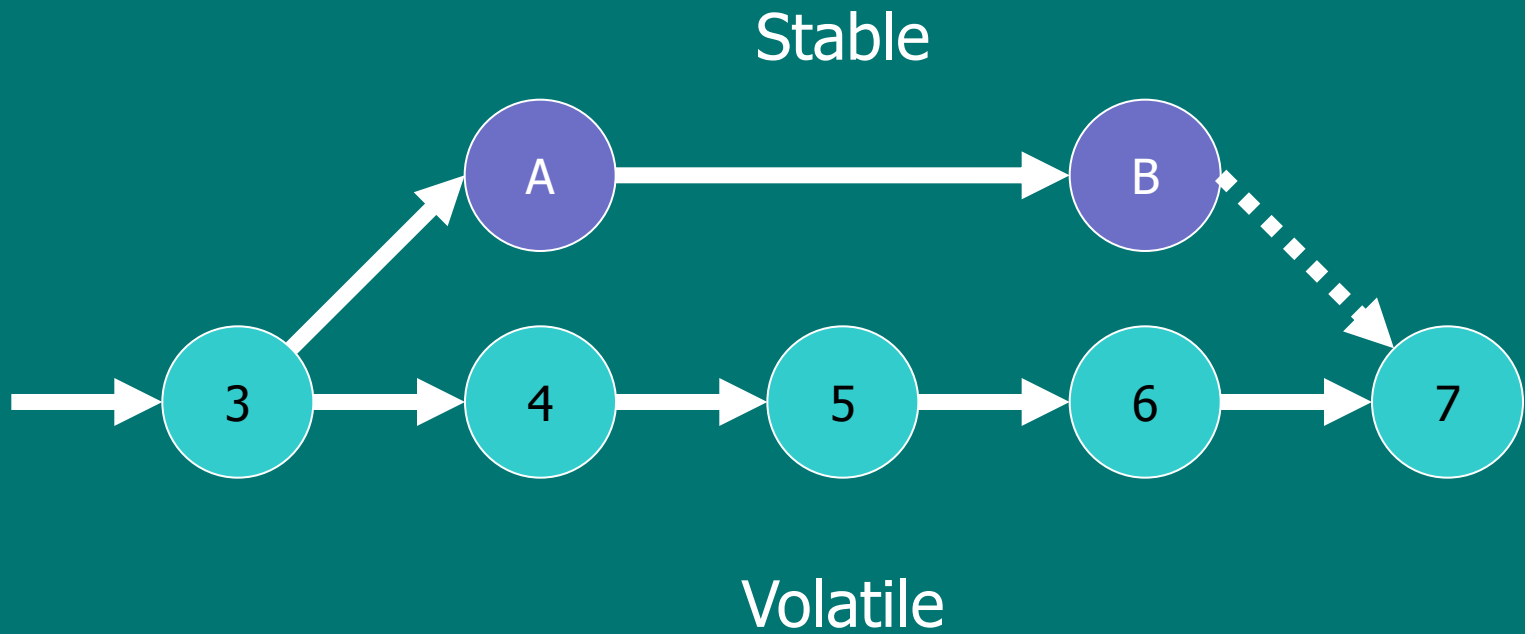
- Avoid it
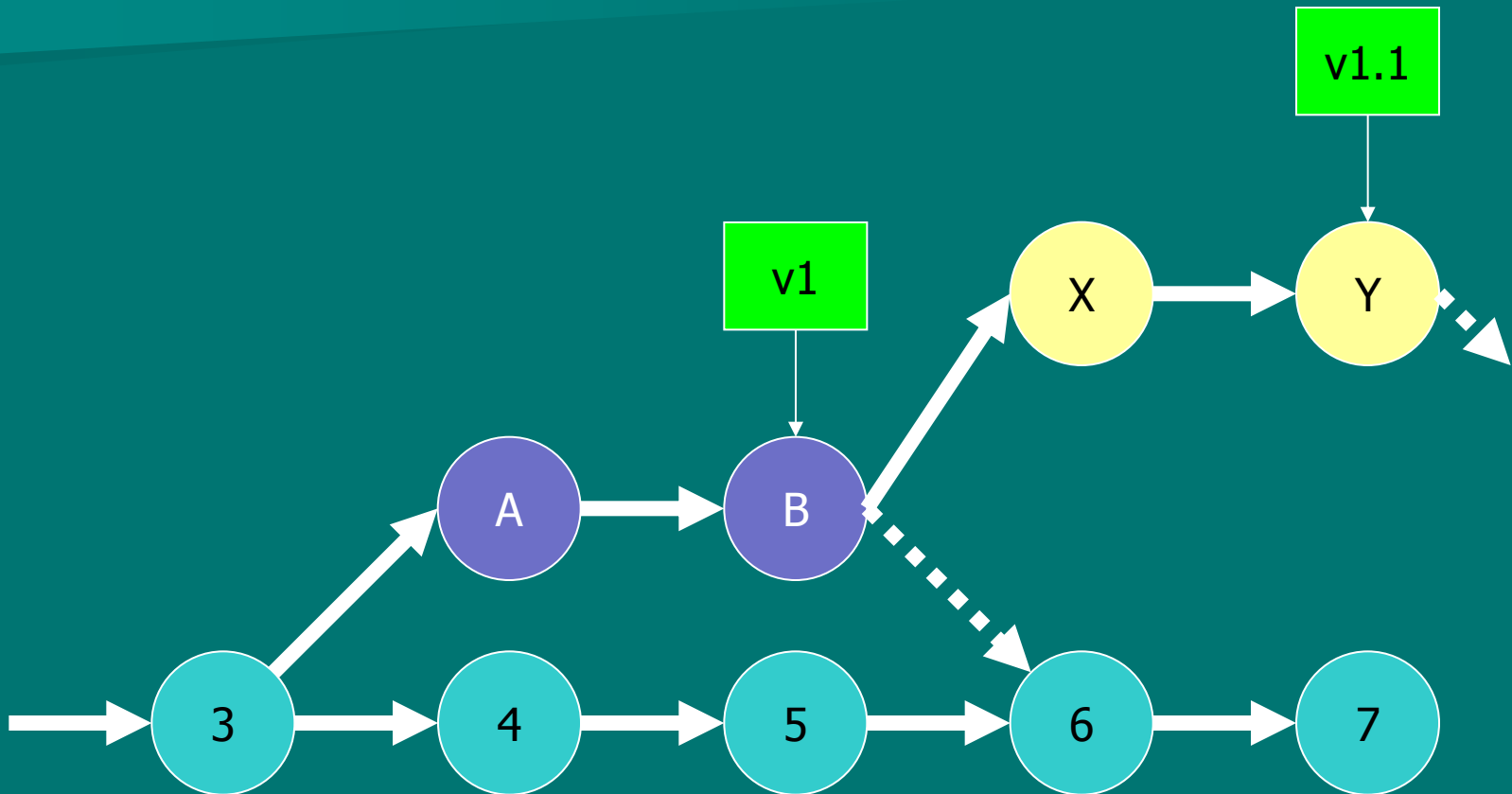- Contain it
- Mitigate it
- Evade it

Branching
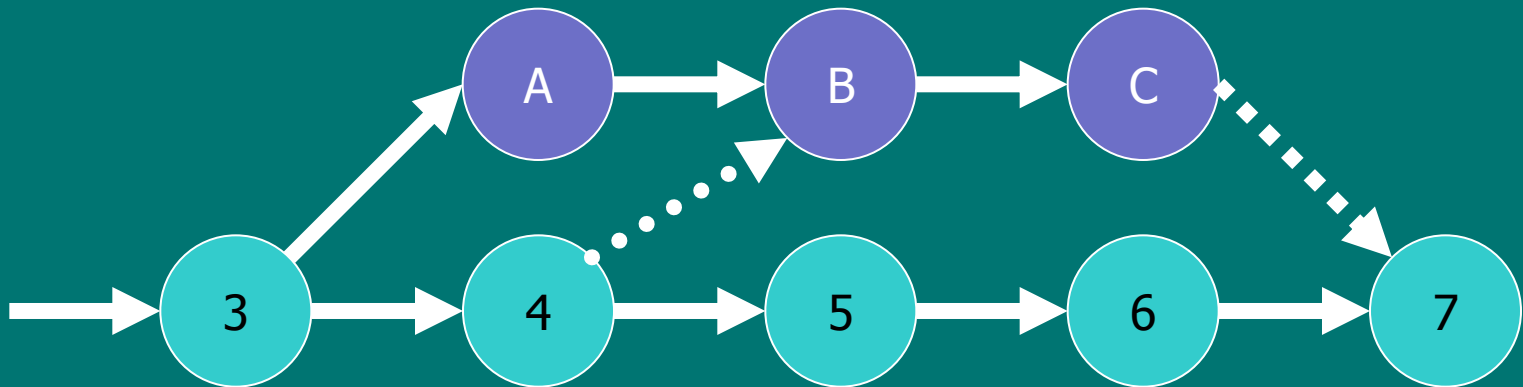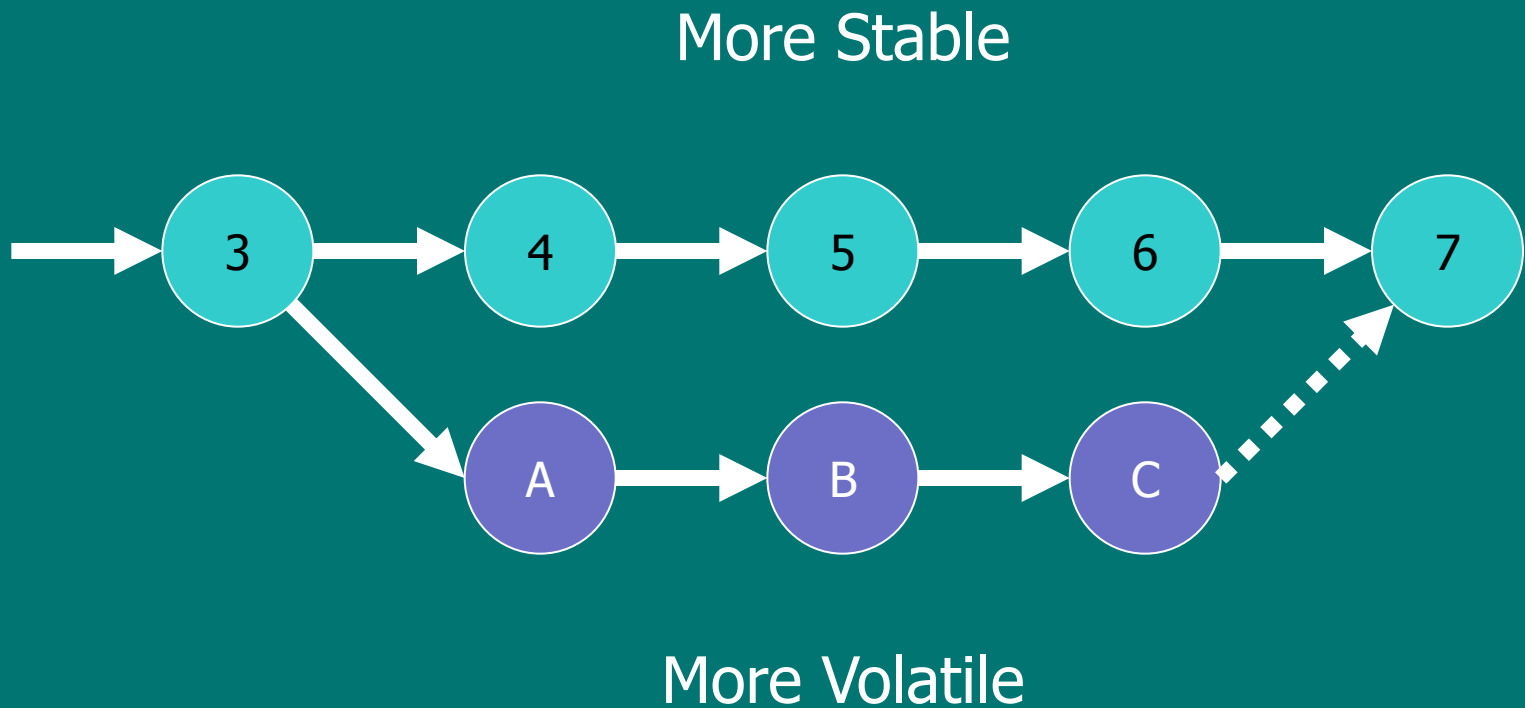
Merging

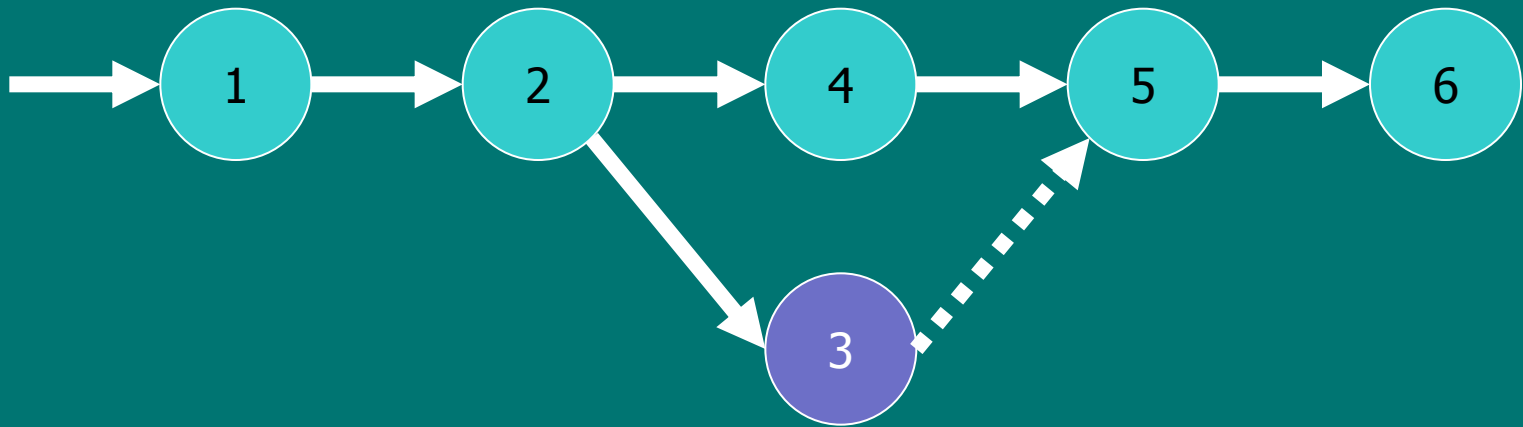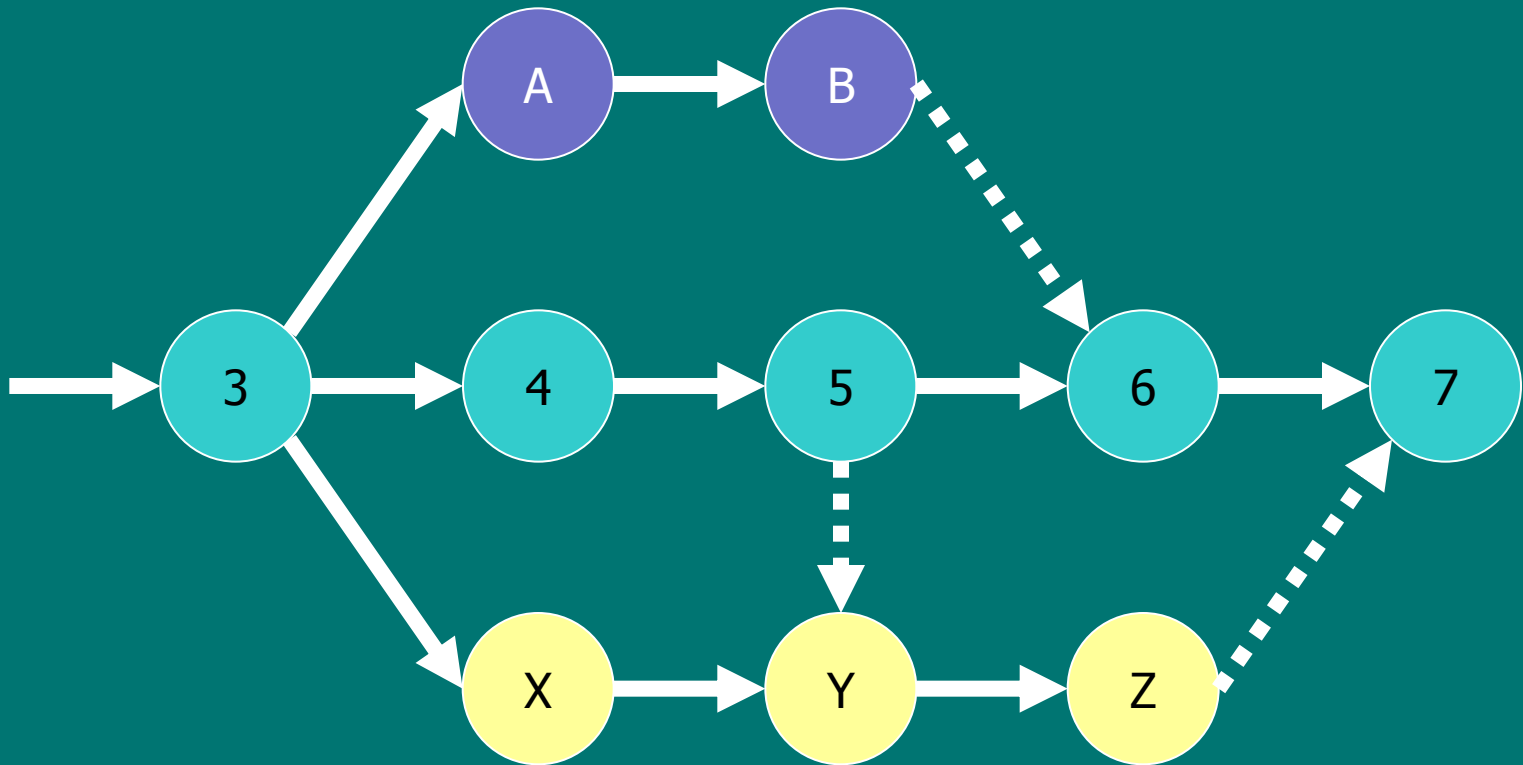# Integration/Development Branch

Release Branch

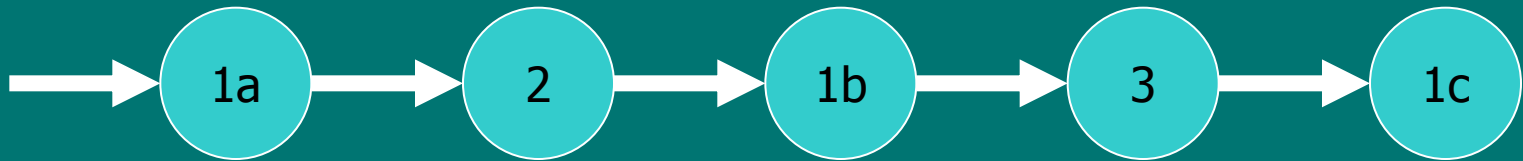# Branching From a Label

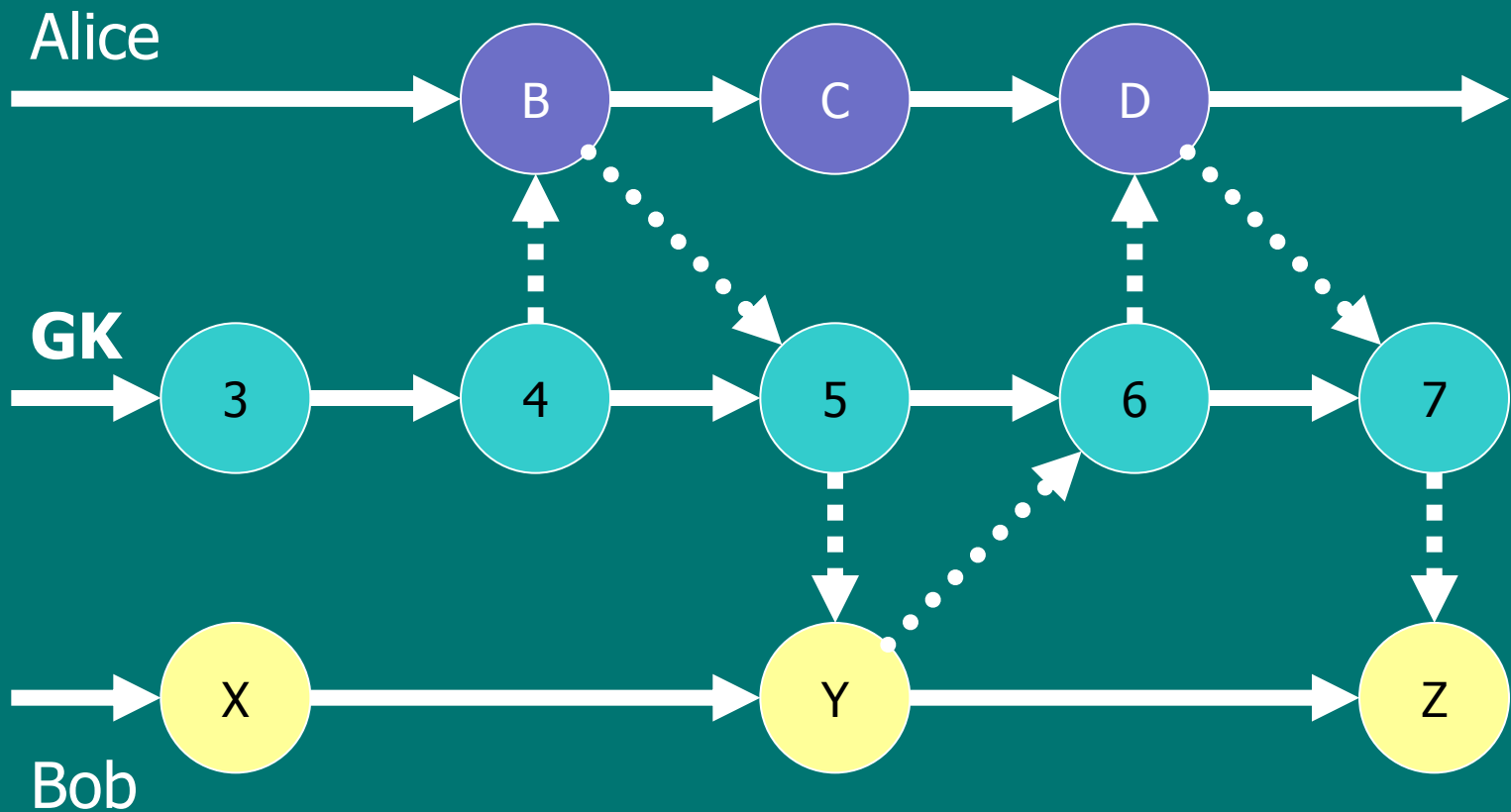# Cherry Picking

Feature/Task/Private Branch

Shelving

Integration Pains

No Branch

Gatekeeper Workflows

Forking

http://3.bp.blogspot.com/-ilala7_XSts/VXCchjYhv4I/.../wXYU7lmhWrs/s1600/fork%2Bin%2Bthe%2Broad.jpg

Branching is a technique for managing risk, but...

Branching is *not the only* technique for managing risk.

Approach

Always Be Ready To Ship

Small Units of Change

Automation

http://trendingchannel.com/wp-content/uploads/2013/01/China-car-production.jpg

Continuous Integration is a mindset, not a tool.

Tests

Paul Martin
@whatpaulsaid

@ajsutton Maybe: Unit tests:does my code work as I think? Integration:do other components work as I think? End-to-end:is my code useful?
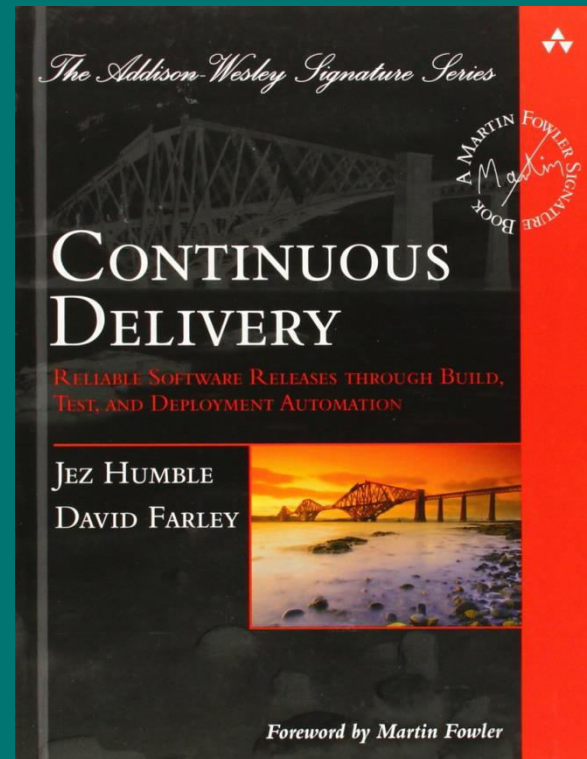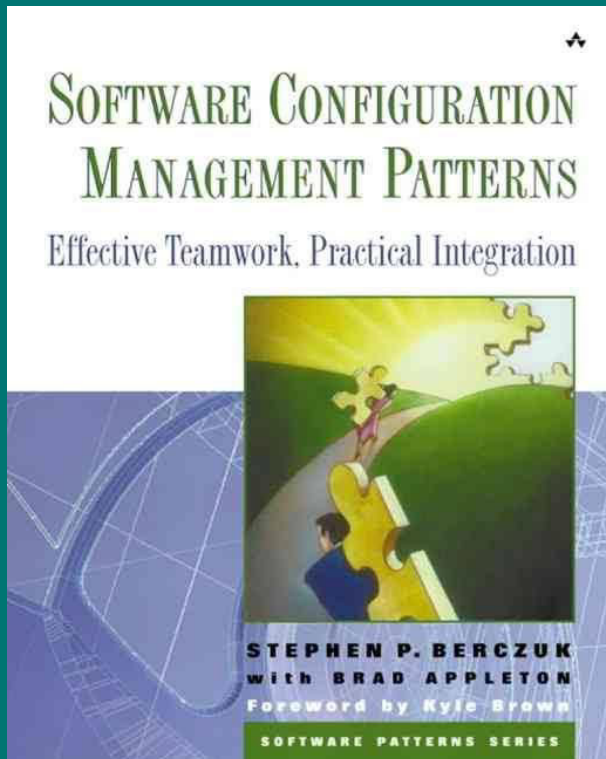
Refactoring

http://factmontster.com/wp-content/uploads/2015/03/interesting-facts-about-brazil-favelas.jpg

Pair/Mob Programming

https://i.ytimg.com/vi/VDYsipu7KZQ/maxresdefault.jpg

Monitoring

Literature (Old & New)

Branching *can* be used to manage *some* risks, but there are more productive ways.

Questions?

Blog:

http://chrisoldwood.blogspot.com

Articles:

http://www.chrisoldwood.com/articles.htm

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