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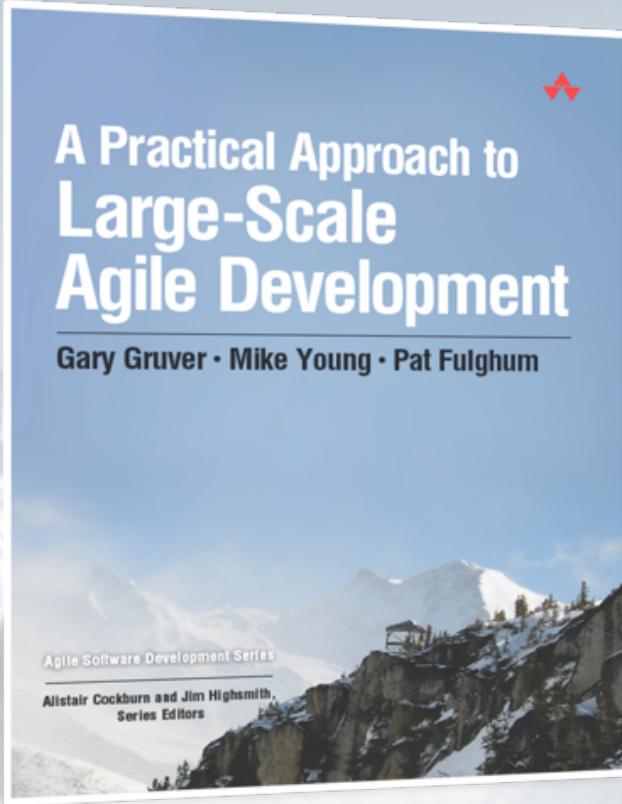
# Making the Enterprise Agile

## “Applying DevOps and Agile Principles at Scale”



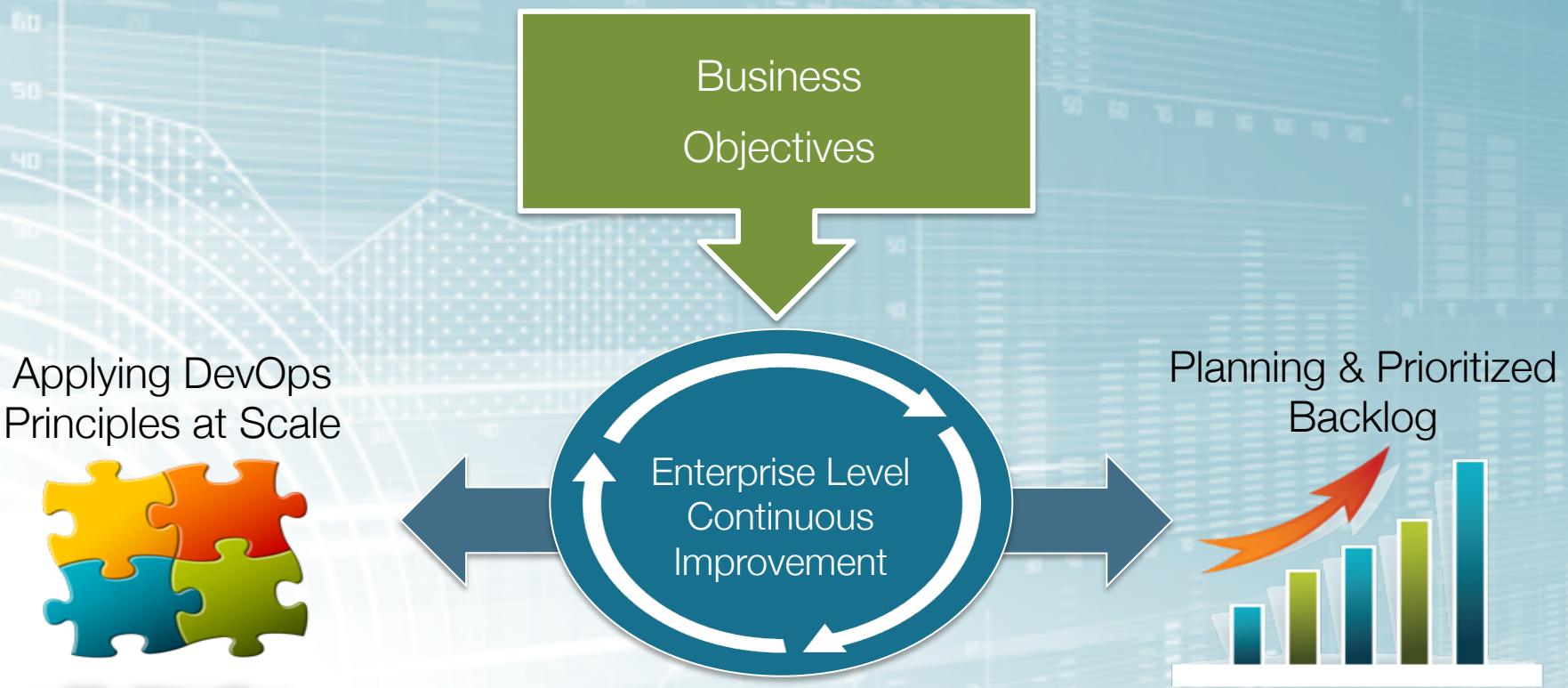
A scenic view of snow-capped mountains under a clear blue sky. In the foreground, a rocky mountain peak rises, partially covered in snow and dotted with evergreen trees. A small, dark structure, possibly a cabin or a weather station, sits atop the peak. The background features more majestic, snow-covered peaks receding into the distance.

Gary Gruver  
October 22, 2014



- FW no longer a bottleneck for the business
- Development costs reduced from \$100M/yr. to \$55M/yr.
- 140% increase in the number of products under development
- Capacity for innovation increased from ~5% to ~40%

# Making the Enterprise Agile



# Business Objectives

Increase the quality and frequency of feedback

Testing in an Operational like environment as close to dev. as possible

Reduce the time and resources between release branch & production

Improve deployment repeatability/env. stability

# Ensuring the Architecture/Build System is Ready

Comp A v2

Comp B v1

Comp C v2

Comp D v2

Comp E v2

Comp F v2

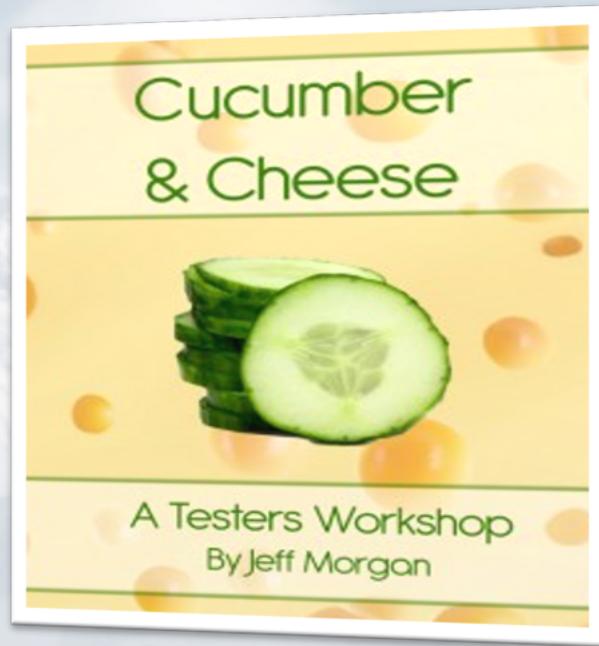
# Automated System Test Architecture

Component based approach to the automated test architecture

Data Magic

Page Objects

Navigation

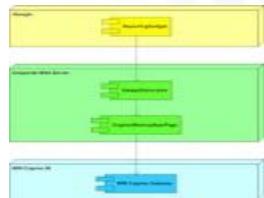


# Unique Considerations for Horses

**facebook.**



**Google™**



# DevOps Unique Challenges

## Embedded SW/FW



Simulators  
Emulators

## Packaged SW



Upgrade  
Compatibility  
Patches

## Web/SaaS



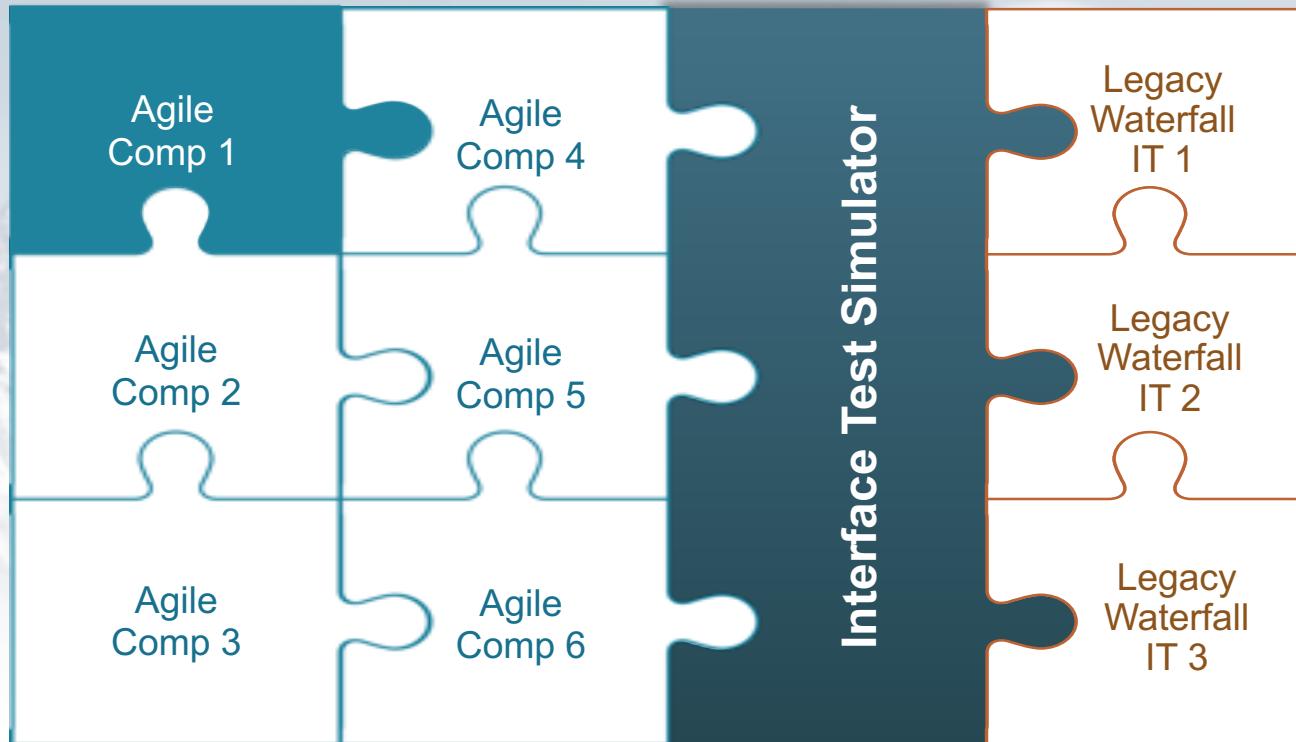
Continuous  
Delivery

# Finding the Offending Code

What Code? When?  
Are you sure it wasn't  
Gene?



# Building Up a Large SW System



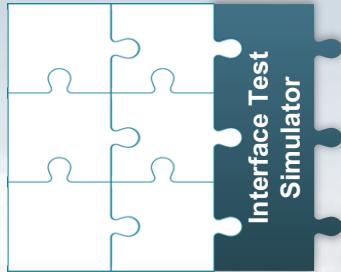
# Auto-revert/Gated Commits



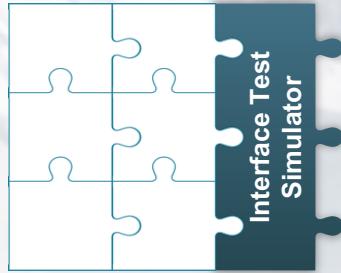
# Building up the Enterprise



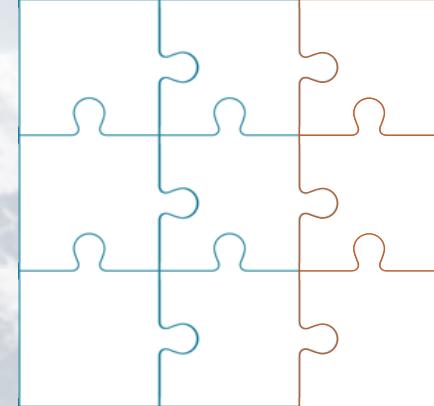
Gating at the SCM



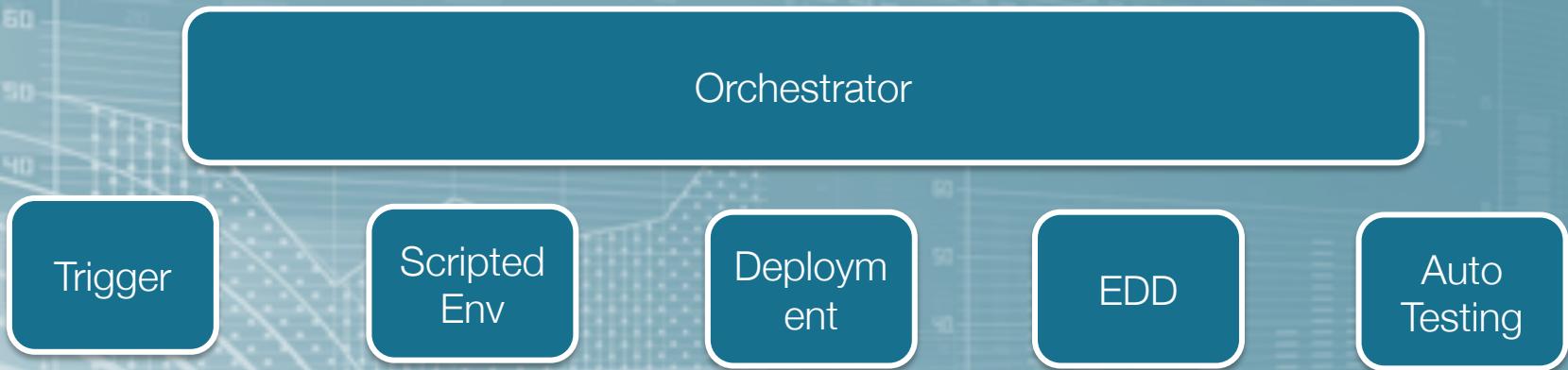
Gating at the SCM



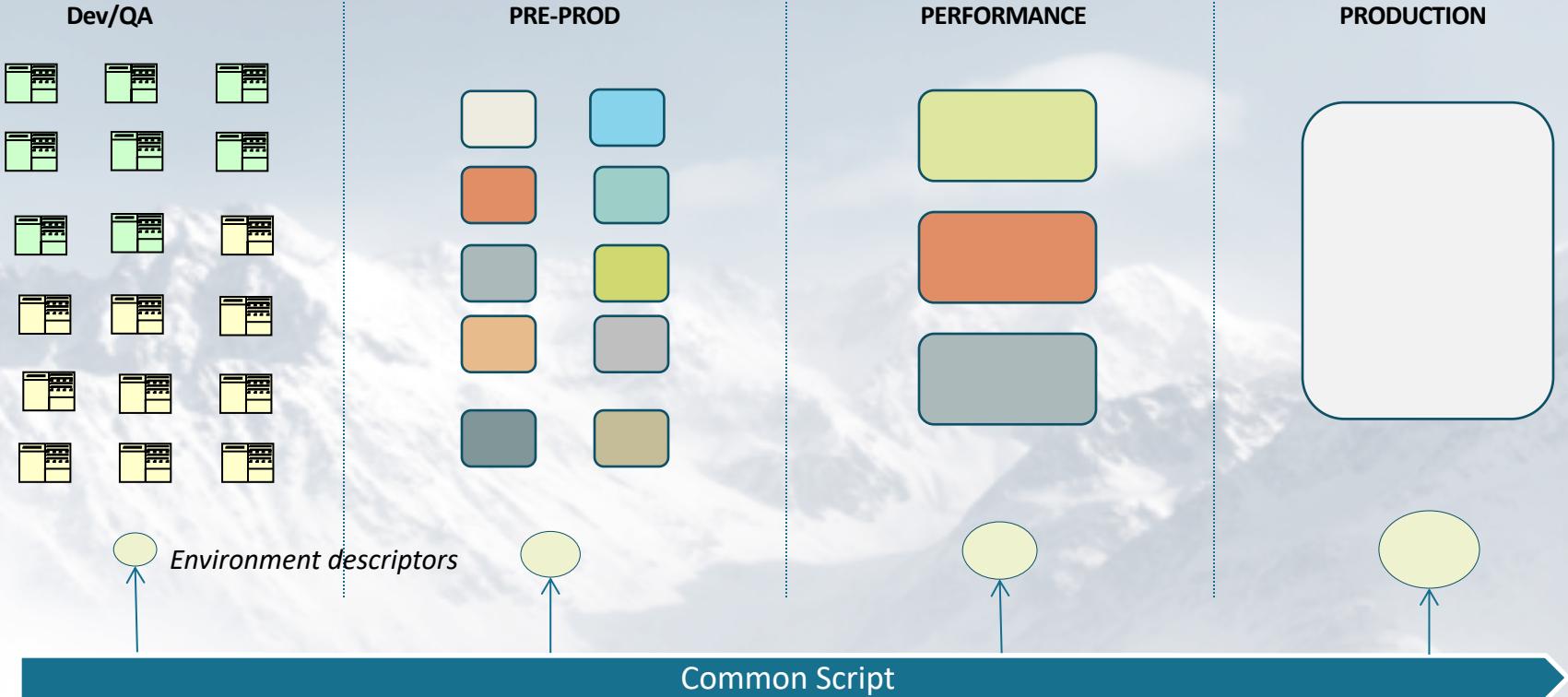
Gating at the Application or Artifact



# CD - Picking the Right Tool for the Job

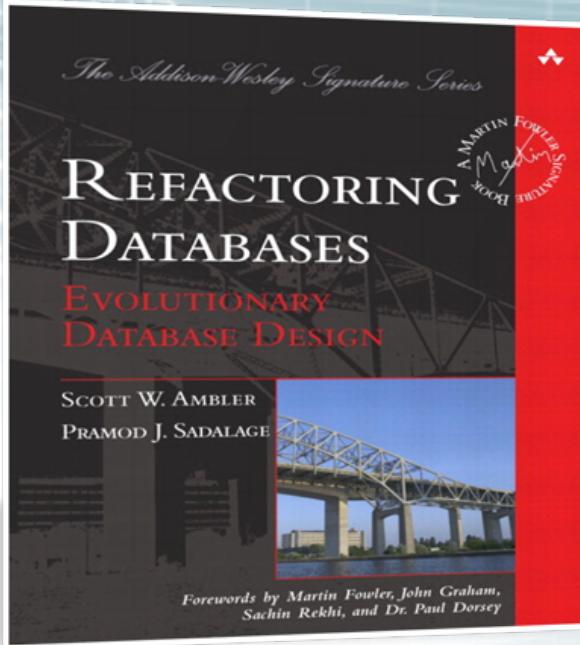


# Scripting Environments - Variances



# Evolutionary Database

- Add deprecate
- Lazy instantiation
- Don't alter or modify
- It is like crossing the beams

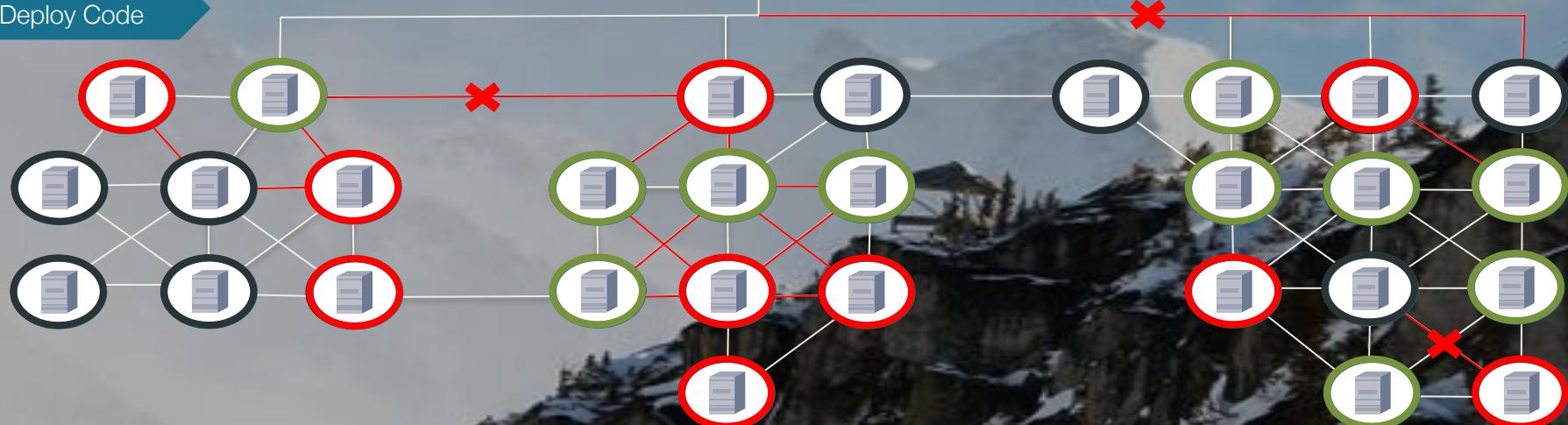


# Finding the Offending Component Quickly Improves Productivity

1 Configure Servers/Routing Device



2 Deploy Code



3 Run a System Test

? ? ? ? ? ? ? ? ? ?

# Finding the Offending Component Quickly Improves Productivity

1 Configure Servers/Routing  
Device and Validate Data



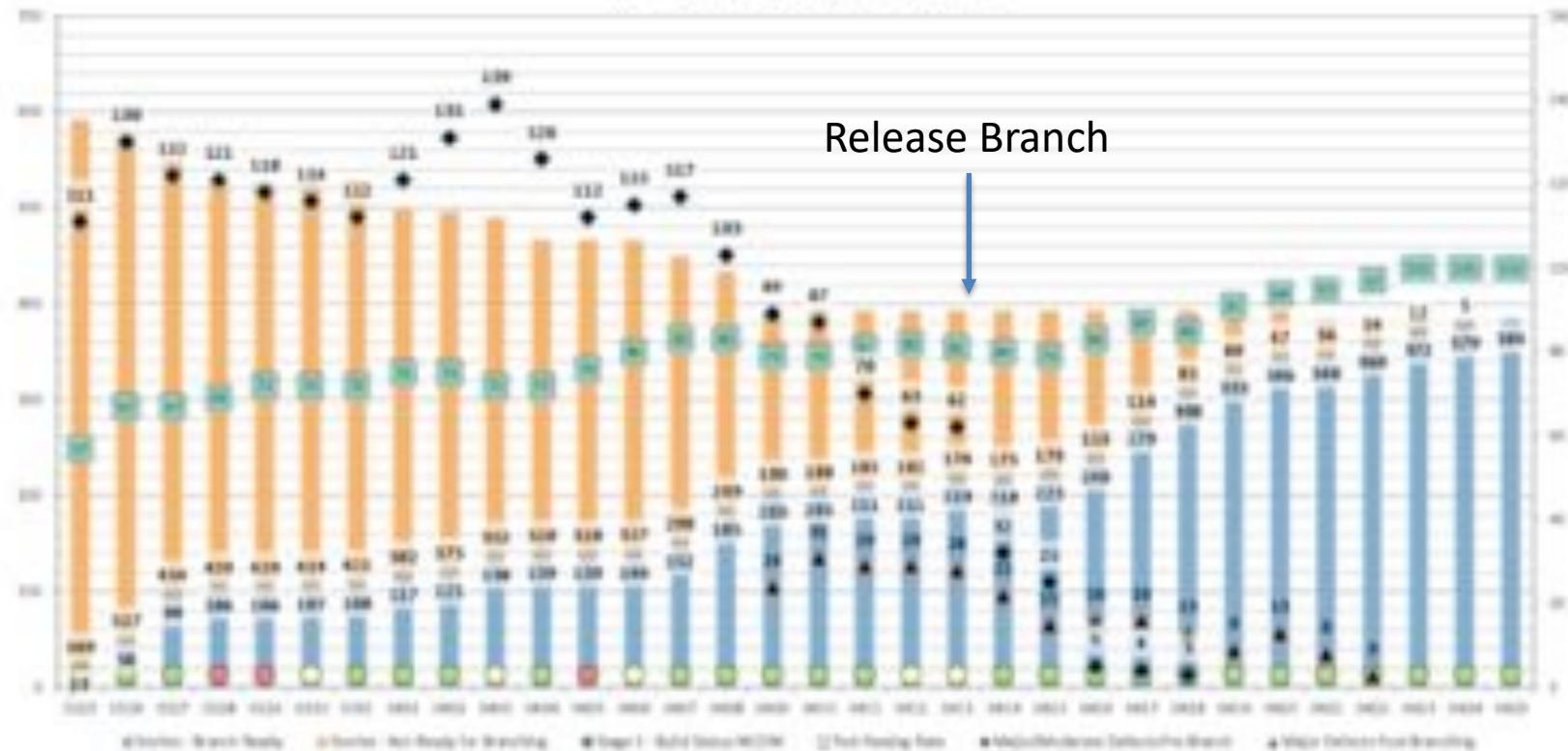
2 Deploy Code & Validate  
Successful Deployment

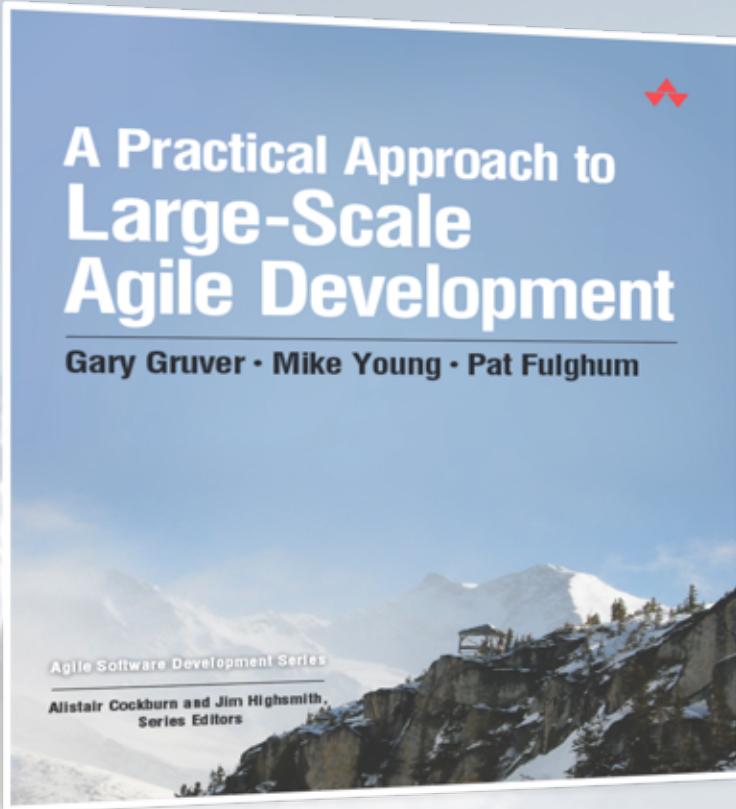


3 Run a System Test

## Code Validated

## Release 14D - Project Readiness





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# Where could I use help?

- How do we get executives to engage and help lead the transformation of their organizations?

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