The Last Mile

Continuous Delivery

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Pythonista at heart!

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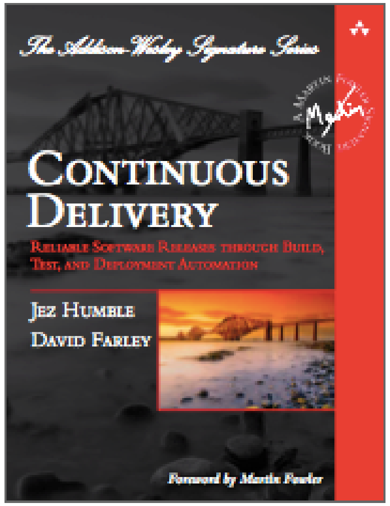
Continuous Delivery

Reliable Software Releases through Build, Test, and Deployment Automation

Jez Humble & David Farley, 2010


The Addison-Wesley Signature Series
Continuous Delivery
Reliable Software Releases through Build, Test, and Deployment Automation
Jez Humble
David Farley
Foreword by Martin Fowler

Agenda

Background

Internals

Benefits

Challenges

Where to start

Tools

Conclusion

Background

Agile

Design and write in small batches

Good for the product and developers

Early & Constant Feedback

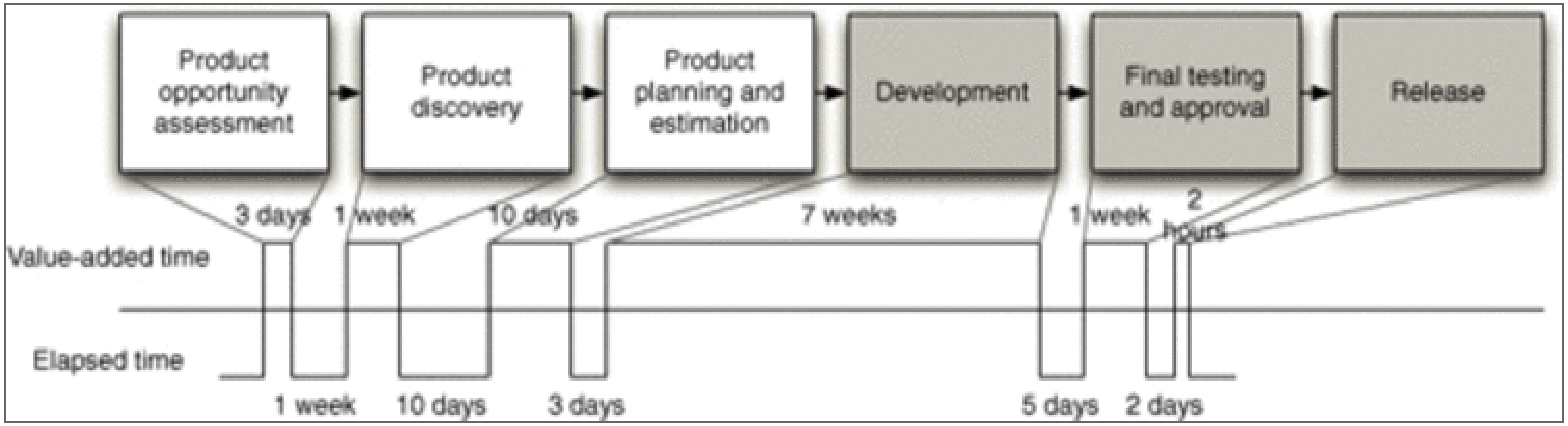
Lean

How long would it take you to deploy a change that involves just one single line of code?

Deliver as fast as possible

Lean Software Development: An Agile Toolkit
Mary & Tom Poppendieck, 2003

Value Stream Mapping



http://www.informit.com/articles/article.aspx?p=1621865

Reduce

Cycle time

Waste

Bottlenecks

Limits

Stakeholder

Implementation
(Dev)

QA

Release
(Ops)

Deployments anti-patterns

Deploying manually

Stagging as first realistic environment

Manual configuration management of production

The Last Mile

Design and write and deploy in small batches

Good for the product and developers and operations

Software is always in a releasable state

Internals

Pillars

Configuration Management

Agile Testing

Deployment pipeline

Principles

Repeatable and reliable release process

Automate almost everything

If it hurts, do it more frequently

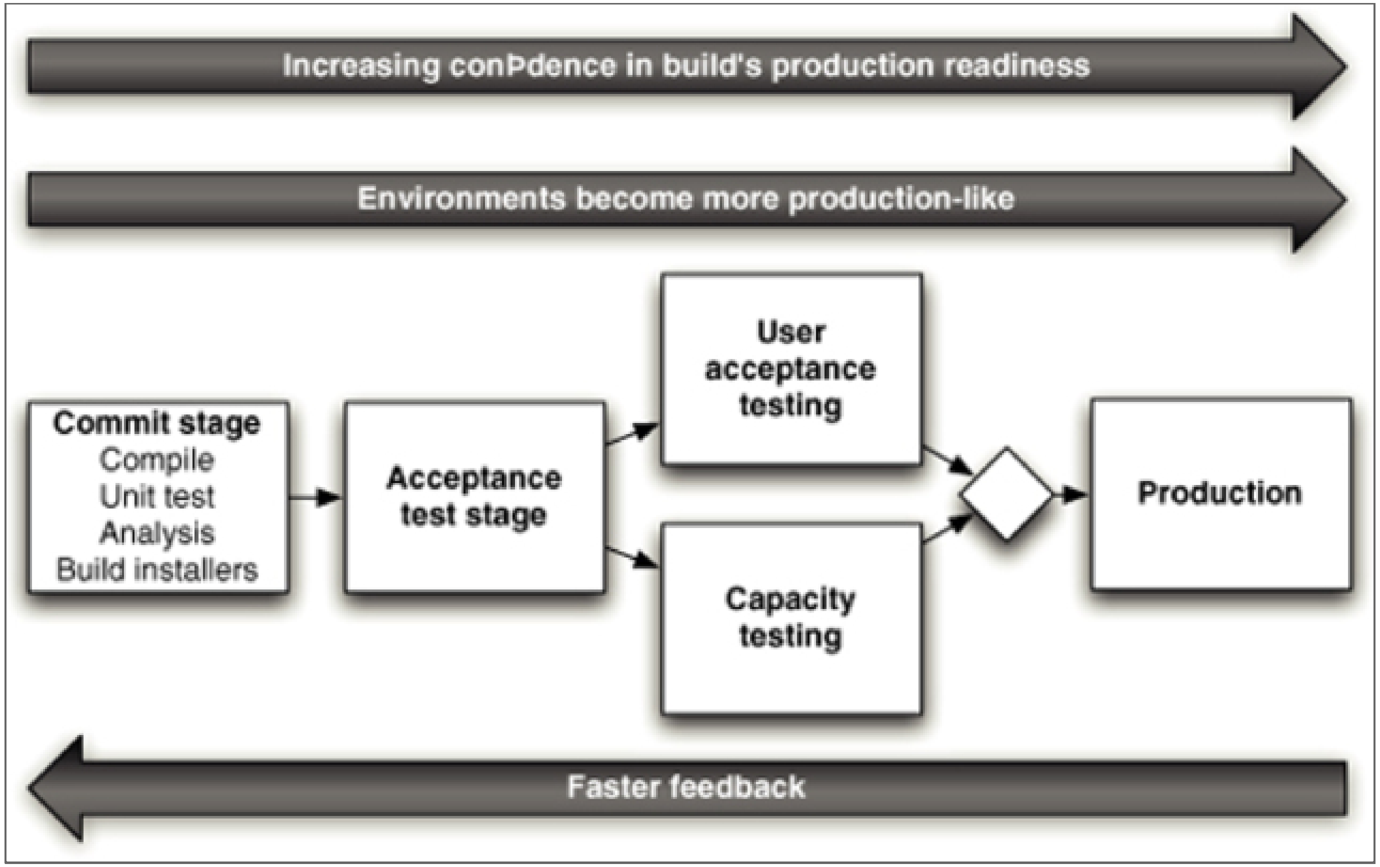
Build quality in

Done means released

Everybody responsible for the delivery process

Continuous improvement

Deployment Pipeline



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Practices

Only build your binary once

Deploy the same way to every environment

Smoke-test your deployments

Deploy into a copy of production

Each change should propagate through the pipeline instantly

If any part of the pipeline fails, stop the line

Stages

Commit

Automated acceptance tests

Manual testing

Release

Continuous Deployment

Crazy...?!

Built-in resilience

Incremental

Fail safe

Benefits

Product

Quicker feedback on product

Massive risk reduction in Delivery Process

Team

Empowering teams

Reducing errors

Lowering stress

Deployment Flexibility

Practice makes perfect

Visibility, measurability

Challenges

CI

Feature Branches?

Reduce batch size

Feature toggles

Branch by abstraction

DevOps

Breaking sillos

Culture shock

Database

Migrations

Decouple from code

Expand/contract

Conclusion

Raise your game!

References

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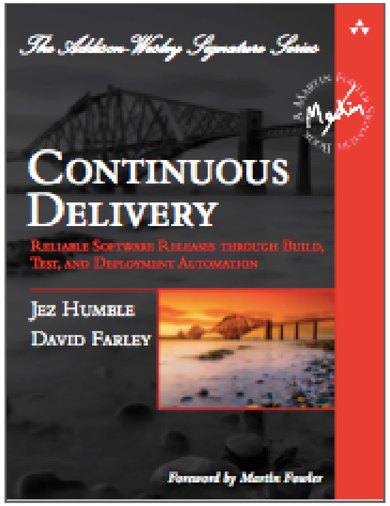
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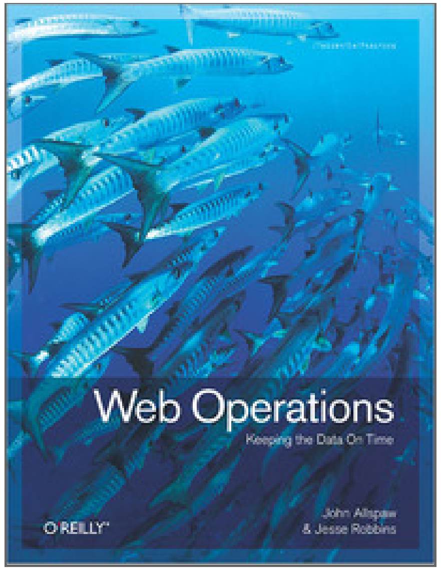
Anatomy of the Deployment Pipeline

Jez Humble

http://www.informit.com/articles/article.aspx?p=1621865&seq

Web Operations
Keeping the data on time

John Allspaw & Jesse Robbins



Kitchensoap

(http://www.kitchensoap.com/)

John Allspaw

Startup Lessons Learned

(http://www.startuplessonslearned.com/2009/06/why-continuous-deployment.html)

Eric Ries

Thank you!

Questions?