



W1

Continuous Testing

Wednesday, October 23rd, 2019 10:15 AM

Continuous Delivery Requires Radical Changes for Testers

Presented by:

Jeff Morgan

Industrial Logic Canada

Brought to you by:



888-268-8770 · 904-278-0524 - info@techwell.com - <http://www.starcanada.techwell.com/>

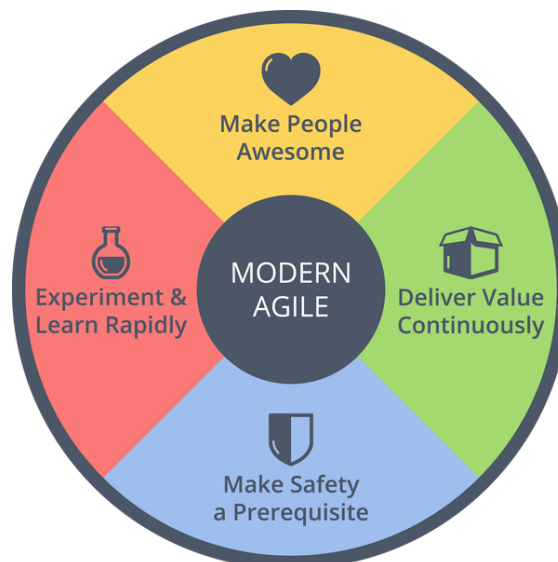
Jeff Morgan

Jeff “Cheezy” Morgan has been teaching classes and coaching teams on agile and lean techniques since 2004. Most of his work has focused on the engineering practices used by developers and testers. For the past few years he has experienced great success and recognition for his work in the area of continuous delivery. He is based out of Toronto and focused on bringing Industrial Logic’s passion for technical excellence, modern agile, and lean product management to the Canadian market.

Continuous Delivery Requires Radical Changes for Testers

Jeff "Cheezy" Morgan
@chzy
Cheezy@IndustrialLogic.ca

Hello



We are uncovering better ways

Continuous Delivery?



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Continuous Delivery

For us it means...



Every line of code written by all developers **goes to production with each commit** into the source code repository.

Goal is to run **experiments in production** with our **customers** in order to **build better products**.



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

OUR CLIENT



Let's get started

JOIN US FOR
Storytime



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Design

Estimate

Budget

Wait for
Team

Develop

Rollout

9% of
Users

year

More than a



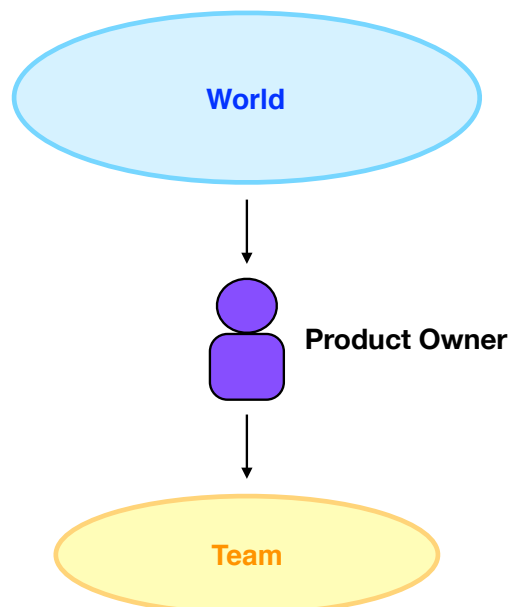
Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

ONE YEAR

More than a
AND
year

COUNTING

Things Change



Isn't this talk about

Testing



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

There is no

Testing phase



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

What is testing?

Testing Behaviour & NFRs

Eliminating Risks



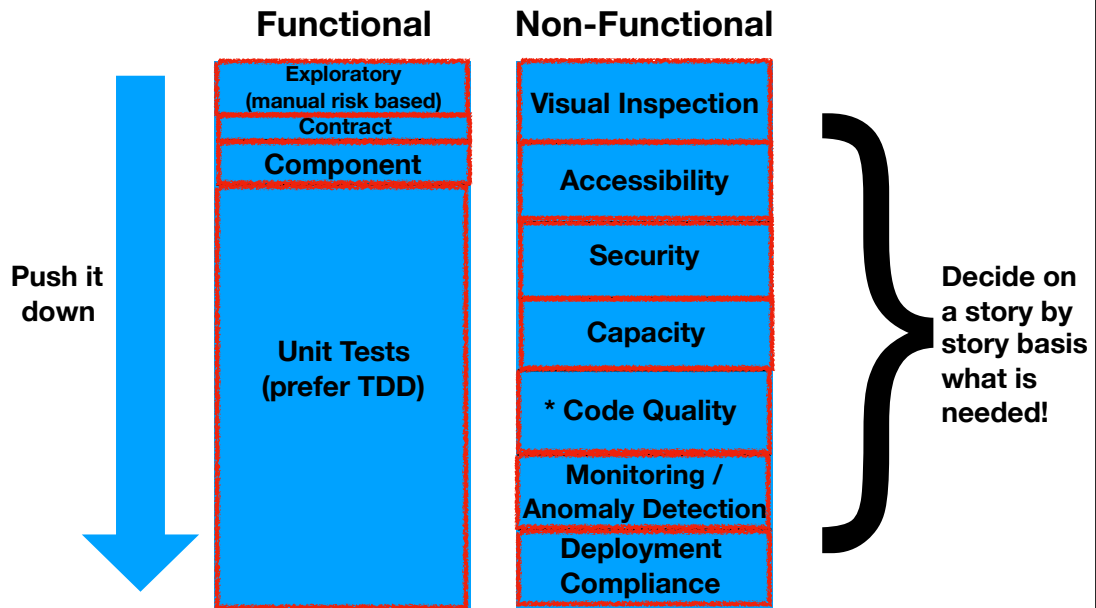
Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Testing the Behaviour



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

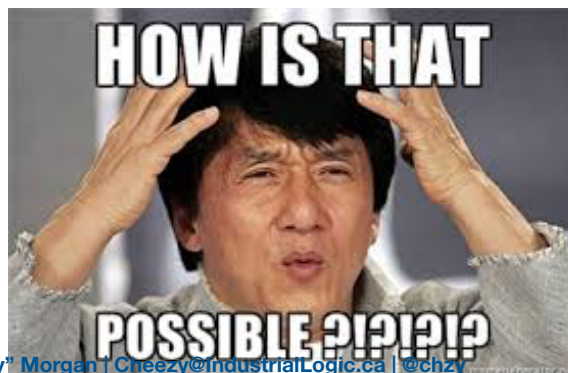
Quality Engineering



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

* Code Quality is referring to static code analysis

Majority of your system
will be tested with
Unit Tests



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy



40,000 to 2,000



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

**Current client has 0
end-to-end tests**



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Lead Time for Change

Deployment Frequency

Average Lead time for last 7 releases

4.98days



Deployment frequency and change over last month

4[↑]₂



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Escaped Defects

How Many?

2



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

But what about



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy



Specialists

Shares knowledge and helps teams maintain scripts



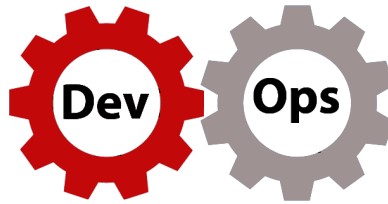
Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Who writes these tests?



Risk





is not a department!



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

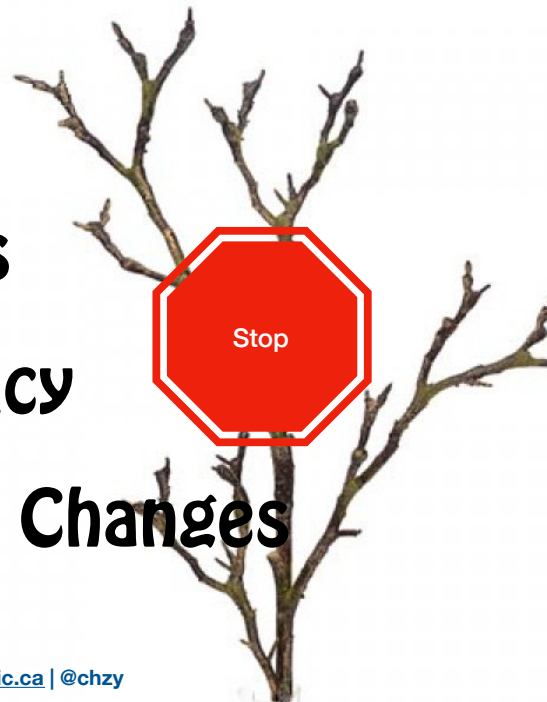
In the code...

No Branches

Feature Toggles

Zero Defect Policy

Automate Database Changes

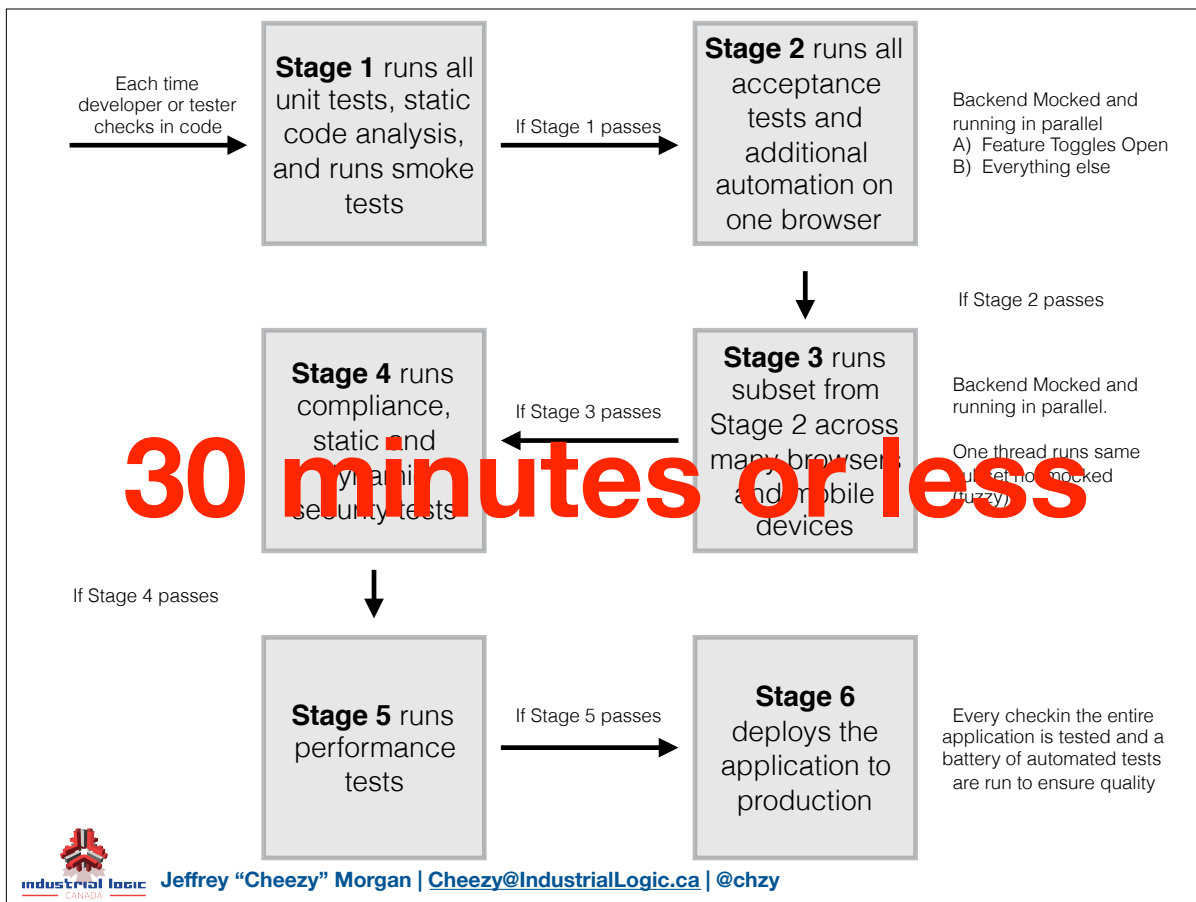


Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Deployment Pipeline



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

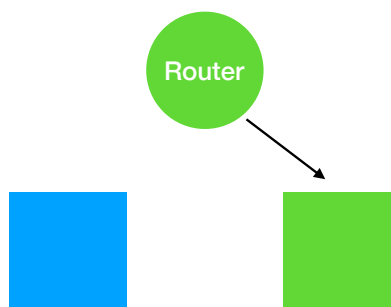


Separate Release from Deployment



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Blue Green Deployment



Pipeline

- Easiest to implement
- Least Benefit



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Dark Deployment



Pipeline

Product Owner makes release decisions



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Environments

No manual changes

Changes are code in source control

All environments identical

Changes traverse pipeline



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Back to the tester...



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy



- Over time developers and testers become indistinguishable
- Many orgs decide to only have developers that understand testing
- "Traditional Manual Testing" has no place
- No Automation Team



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

Recap

- Test the behaviour with automated tests and exploratory testing
- Continuously test the non-functional requirements
- No branches - use feature toggles
- Zero Defect policy
- Pipeline drives the risk out of application and environment changes



Jeffrey "Cheezy" Morgan | Cheezy@IndustrialLogic.ca | @chzy

A stack of various cheeses, including cheddar, brie, blue cheese, and others, arranged in a pyramid-like structure.

Thank You



Cheezy@IndustrialLogic.ca
@chzy