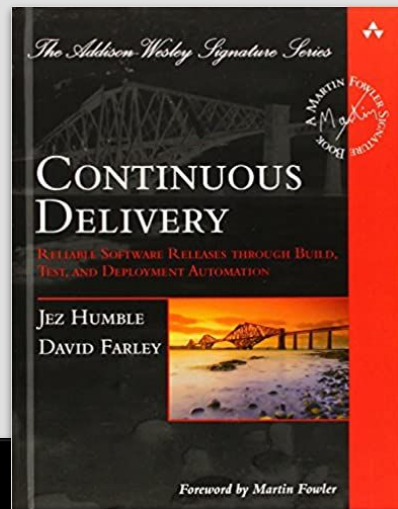
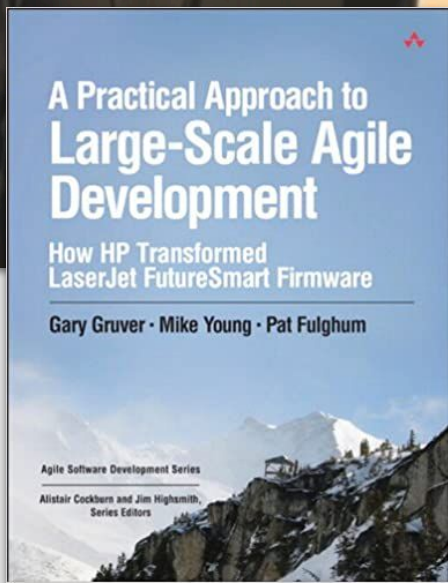


# the journey from devops to cloud engineering



Matt Stratton  
Staff Developer Advocate, Pulumi

let's start by  
looking back





The conference that brings development and operations together.



Home



Contact



Events



Presentations



Blog

## Devopsdays Ghent 2009



welcome program reactions speakers participants

This is how the first devopsdays was announced:



The first devopsdays happened in Belgium - Ghent and was a great success. Have a look at the [reactions](#) is created and the [presentations](#) that were held. See you next time!

[Tweets from devopsdays events](#)

**Non-Functional Requirements: do user stories help?** [\[PDF\]](#)[\[Video\]](#) [Rachel Davies](#)

**Cucumber-nagios** [\[slideshare\]](#)[\[Video\]](#)  
**Flapjack ... rethinking monitoring for the cloud** [\[slideshare\]](#)[\[Video\]](#) [Lindsay Holmwood](#)

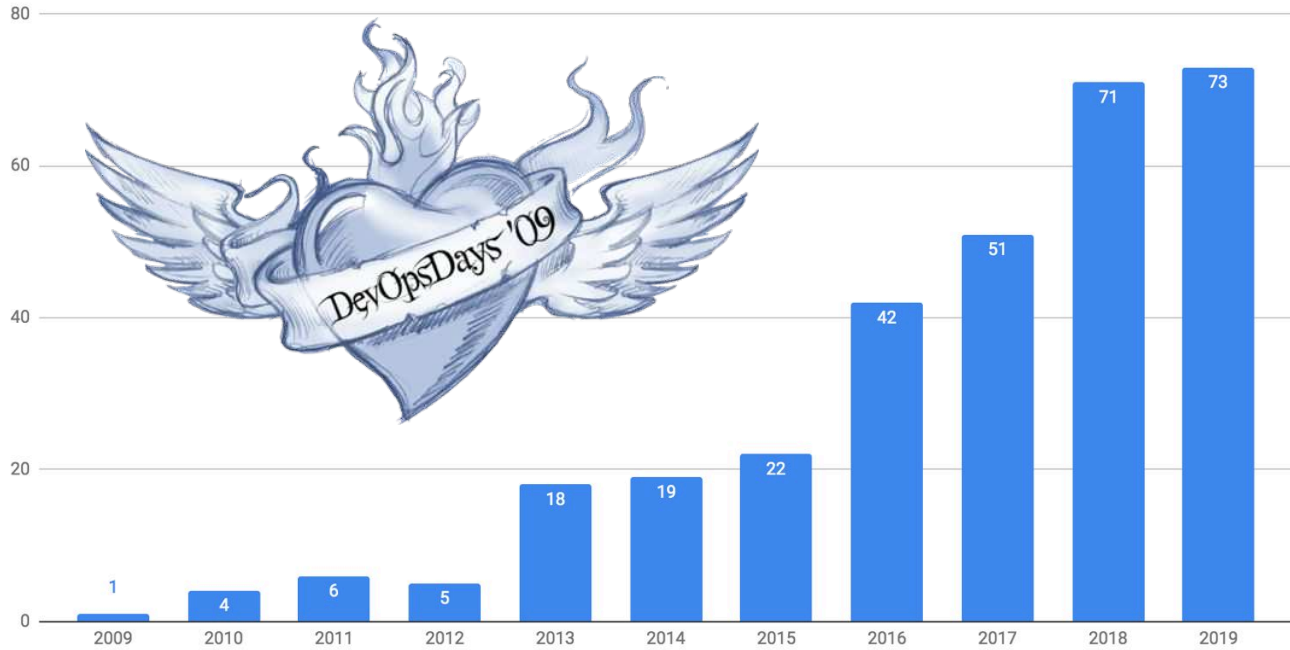
**Building Agile Infrastructures with Puppet** [\[PDF\]](#)[\[Video\]](#) [Teyo Tyree](#)

**Introducing Kanban in operations** [\[PDF\]](#)[\[Video\]](#) [Mattias Skarin](#)

**Continuous Integration, Pipelines and Deployment** [\[slideshare\]](#)[\[Video\]](#) [Chris Read](#)

**A private openQRM Cloud use-case for a developer team ... not only for sysadmins.** [\[ODP\]](#)[\[PPT\]](#)[\[Video\]](#) [Matthias Rechenburg](#)

## devopsdays events



What is DevOps?



**DevOps is the union of people,  
process, and products to  
enable continuous delivery of  
value to our end users**

Donovan Brown

@mattstratton

#serverlessdays



What is DevOps?



Optimizing the human  
experience and performance  
of operating software with  
software and humans

Andrew Clay Shafer

@mattstratton

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 Pulumi



**Khushil Dep**  
@khushil



Follow

#DevOpsIsNot copy-pasting answers from  
#stackoverflow



**DevOps**  
@joshhertze



Following

#devopsisnot a fullstack 10x rockstar  
engineer.



**Rachael**  
@halfwrittentale



Follow

#DevOpsIsNot just developers being on call



**Rainbow DashOps**  
@mattstratton

#DevOpsIsNot just reading The Phoenix  
Project



**Jason Walker**  
@TheDesktophero



Following

#DevOpsIsNot about avoiding discipline and  
structure, or just about t-shirts & stickers



**James Hebden**  
@james\_hebden



Follow

#DevOpsIsNot your khakis.

# CALMS

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# culture

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You can't directly change  
culture. But you can change  
**behavior**, and behavior  
becomes culture

–Lloyd Taylor, VP Infrastructure, Ngmoco

# automation

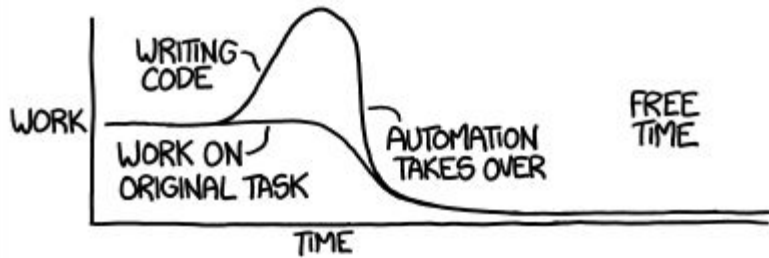
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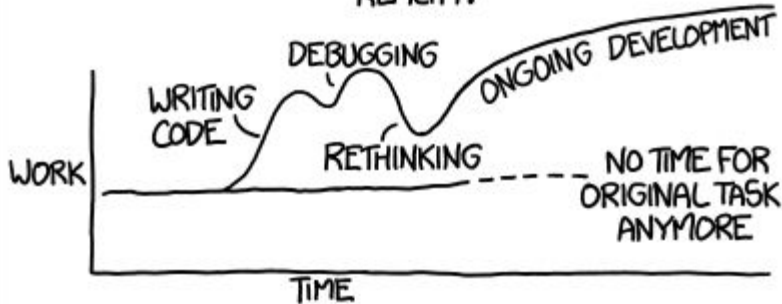


"I SPEND A LOT OF TIME ON THIS TASK.  
I SHOULD WRITE A PROGRAM AUTOMATING IT!"

THEORY:



REALITY:



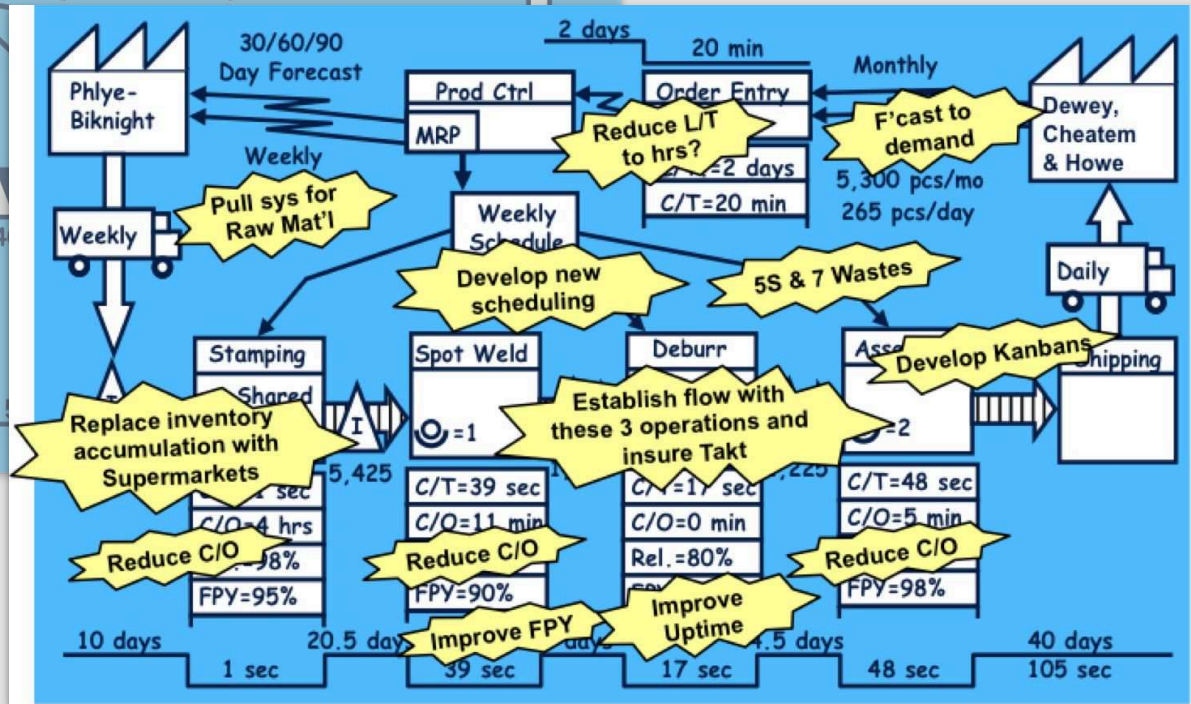
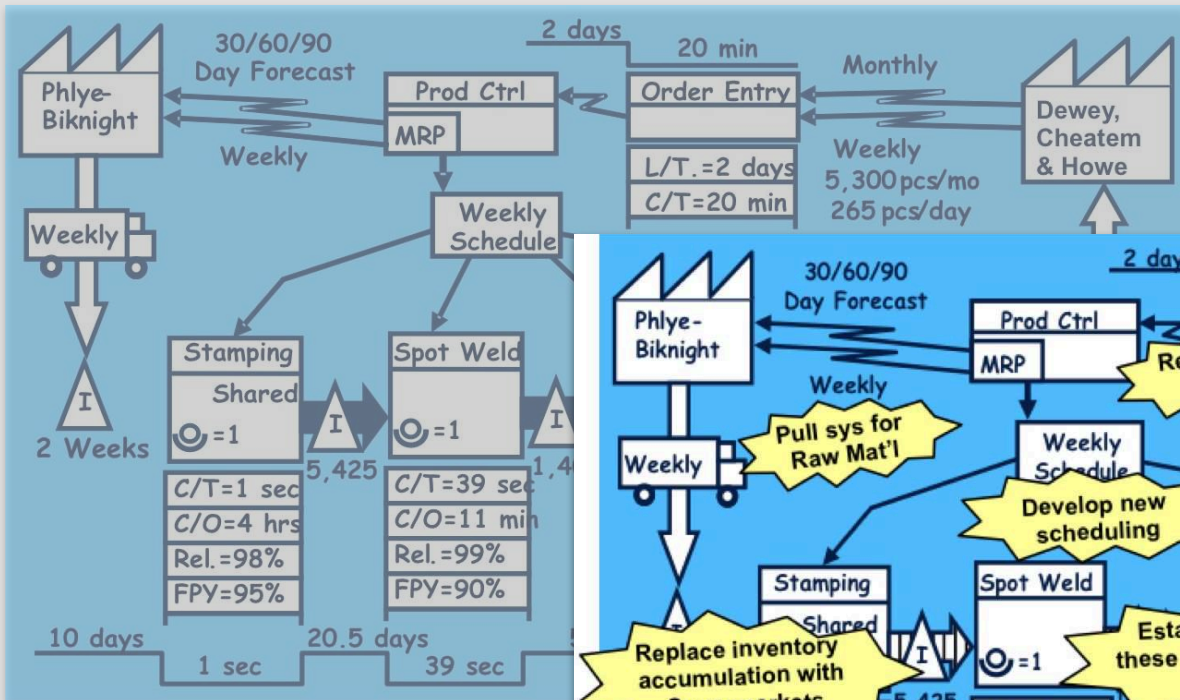
Asking experts to do boring and repetitive, and yet technically demanding tasks is the most certain way of ensuring human error, short of sleep deprivation, or inebriation.  
– *Continuous Delivery*, Jez Humble and David Farley

# lean

@mattstratton

#serverlessdays





# measurement

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#serverlessdays



# sharing

@mattstratton

#serverlessdays



but... what  
happened?

# it's all about automation?

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# kubernetes will save us all

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“culture is for yoghurt”

# devops is being sold to you

“You can’t buy devops, but I can  
definitely sell it to you”  
– Matty Stratton, charismatic grifter

DevOps

Cloud sDevOps

BizDevOps

DevOps

DevSecDE

DevSecOps



# words are hard

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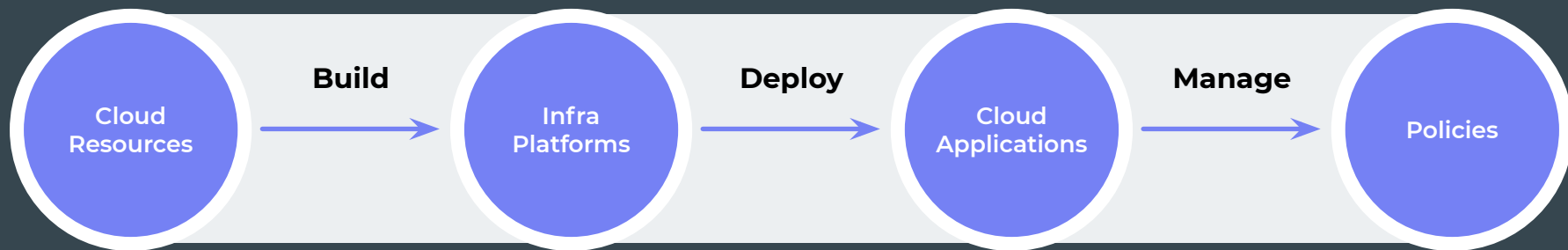


# don't worry

I have more words for you

# Cloud Engineering

Cloud Engineering employs **standard software engineering practices** and tools across infrastructure, application development, and compliance teams to **tame the complexity of the modern cloud.**



# build

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# Build



- ★ Shared services platforms
- ★ Reusable infrastructure components
- ★ Apply existing frameworks and tools

# build + calms

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#serverlessdays



# build culture

- ★ focus on  
differentiators
  - ★ common  
development  
experience
  - ★ drives empathy
-

# build automation

- ★ reusable components
  - ★ leverage ecosystems
  - ★ avoid bespoke implementation
-

# build lean

- ★ focus on value
  - ★ drive efficiency
  - ★ review for improvement
-

# build measurement

★ consistency breeds  
visibility

# build sharing

- ★ reusable components
  - ★ ecosystem promotes outside sharing
  - ★ learn from existing practices
-

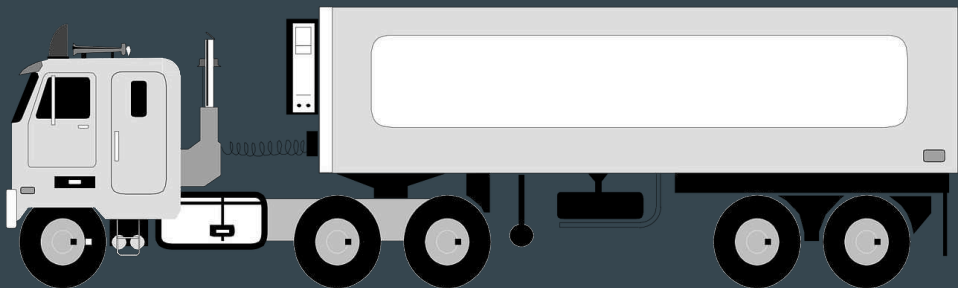
# deploy

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# Deploy



- ★ The same way, every time
- ★ I mean, *every* time
- ★ Quality and security checks
- ★ Automate checklists!
- ★ Infrastructure is part of the application

# deploy + calms

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#serverlessdays



# deploy culture

- ★ “it doesn’t count until it’s in prod”
  - ★ iterative development
  - ★ enables continuous improvement
-

# deploy automation

- ★ CI/CD pipelines
- ★ automated checks
- ★ checklists are great!  
let's automate them

# deploy lean

- ★ enables fast feedback
  - ★ visibility into the supply chain
  - ★ identify bottlenecks
-

# deploy measurement

- ★ visibility again
- ★ measure cycle time
- ★ it's not just speed

# deploy sharing

- ★ look, more visibility
  - ★ common pipeline means less duplicate work
  - ★ everyone knows “what changed?”
-

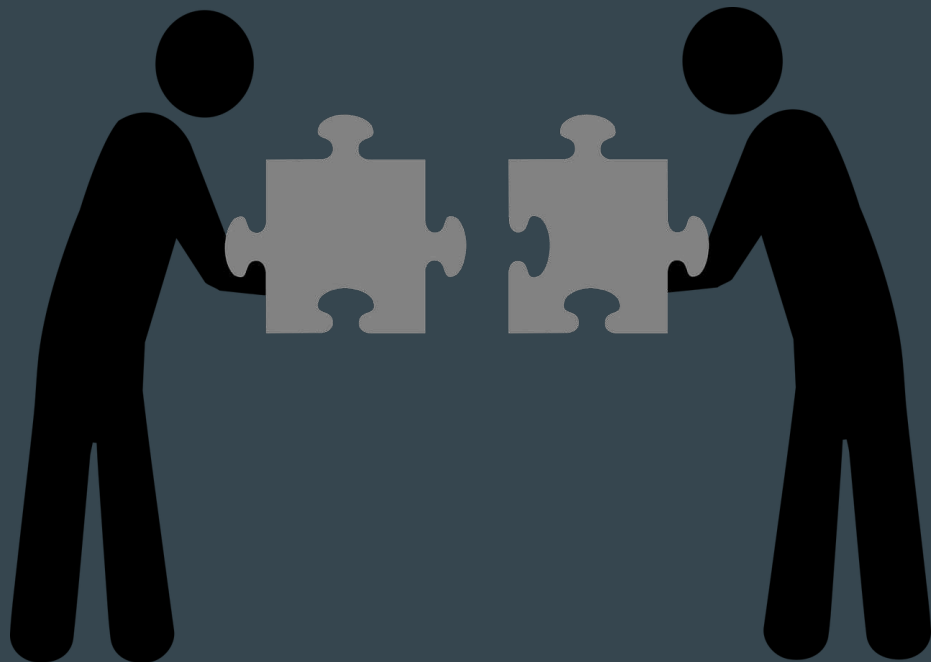
# manage

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# Manage



- ★ Visibility
- ★ Security is everyone's job
- ★ Common “vocabulary”
- ★ Controls and process that enable and enhance

# manage + calms

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# manage culture

- ★ collaboration enabled through common code
  - ★ guardrails enable confidence
  - ★ increase common understanding across disciplines
-

# manage automation

- ★ computers can't lie
  - ★ trust of  
process/checks
  - ★ policy goes from  
vague to  
understandable
-

# manage lean

- ★ determine improvements for safety
  - ★ express value stream changes in code
-

# manage measurement

- ★ visibility into current policy
  - ★ view of current state of compliance
  - ★ identify when policy and value collide
-

# manage sharing

- ★ shared vocabulary
  - ★ utilize success patterns
  - ★ share learning
-

# let's take devops back

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# Thank You



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GitHub - [mattstratton](https://github.com/mattstratton)

Slides - [speaking.mattstratton.com](https://speaking.mattstratton.com)

LinkedIn - [linkedin.com/in/mattstratton](https://linkedin.com/in/mattstratton)

Podcast - [ArrestedDevOps.com](https://ArrestedDevOps.com)

DevOps Party Games - [devopspartygames.com](https://devopspartygames.com)

CNCFaceOff - [cncfaceoff.tv/readme](https://cncfaceoff.tv/readme)