

# Keys to Continuous Delivery Success

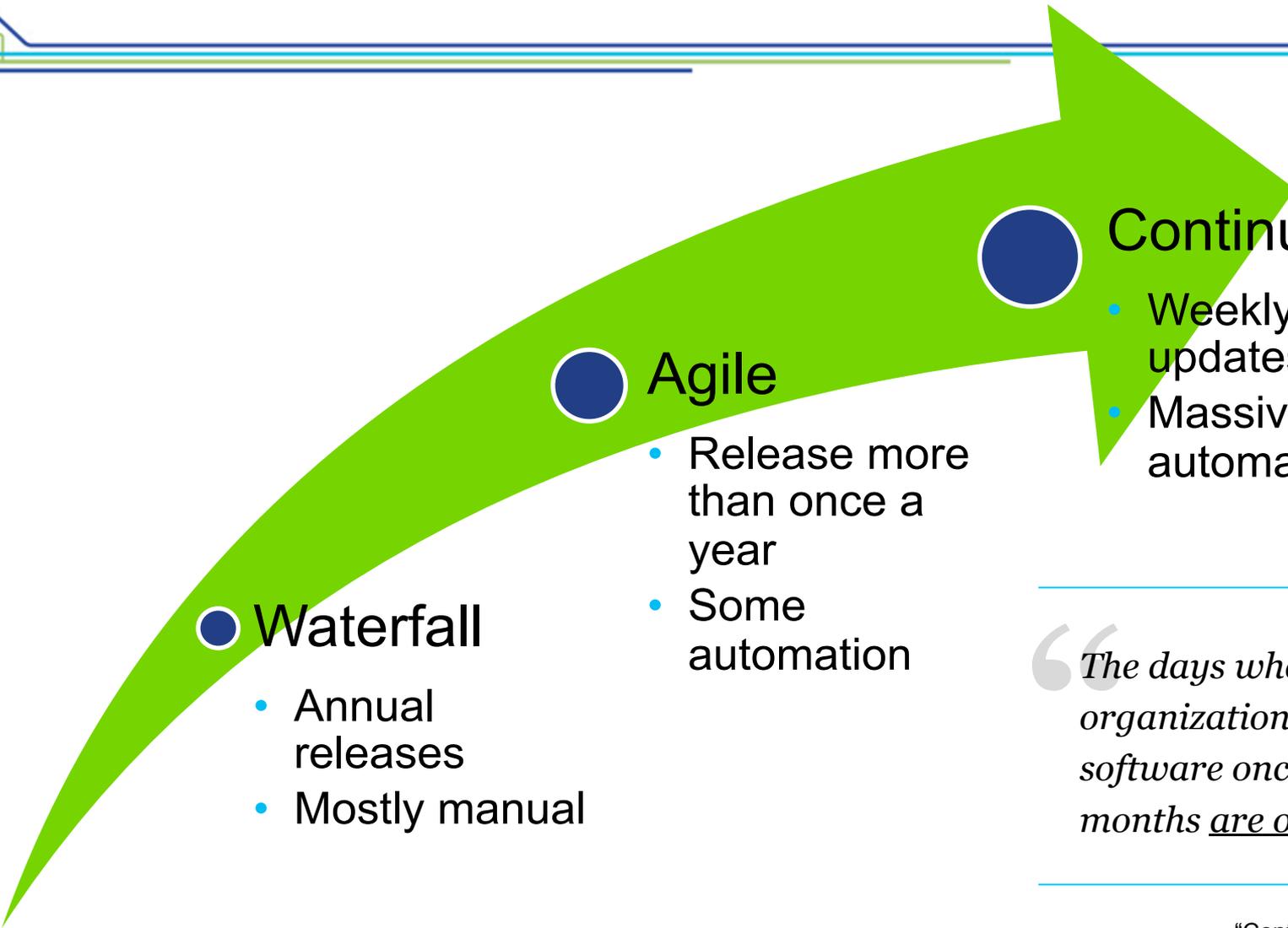


Mark Warren  
Product Director  
Perforce Software

# Perforce Software

- Enterprise Version Management
- 10,500+ customers
- Trusted with storing and versioning the most valuable IP for the world's most innovative companies
  - From start-ups to Fortune 100
  - The leading cloud companies
- All types of content
  - Code
  - Binaries
  - Movies
  - Chip Designs
  - Gaming
  - Images





● **Waterfall**

- Annual releases
- Mostly manual

● **Agile**

- Release more than once a year
- Some automation

● **Continuous**

- Weekly/daily updates
- Massive automation

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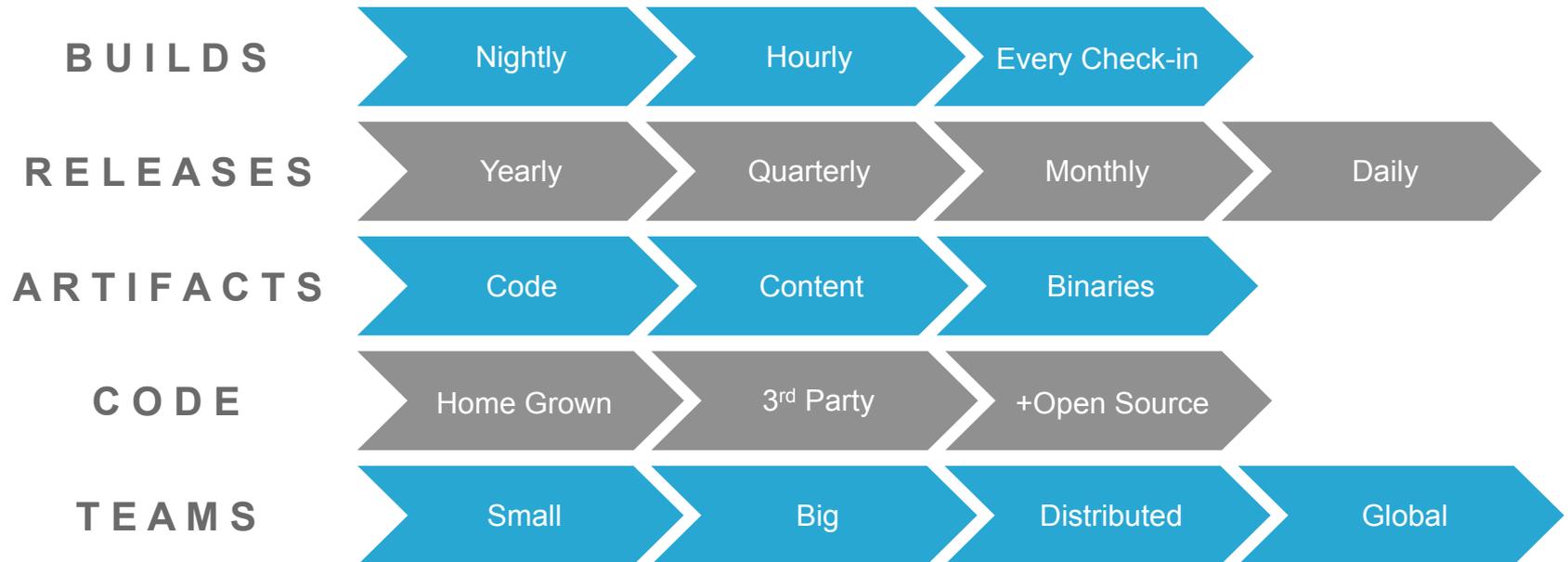
“The days when a successful organization could release software once every 12 to 18 months are over.”

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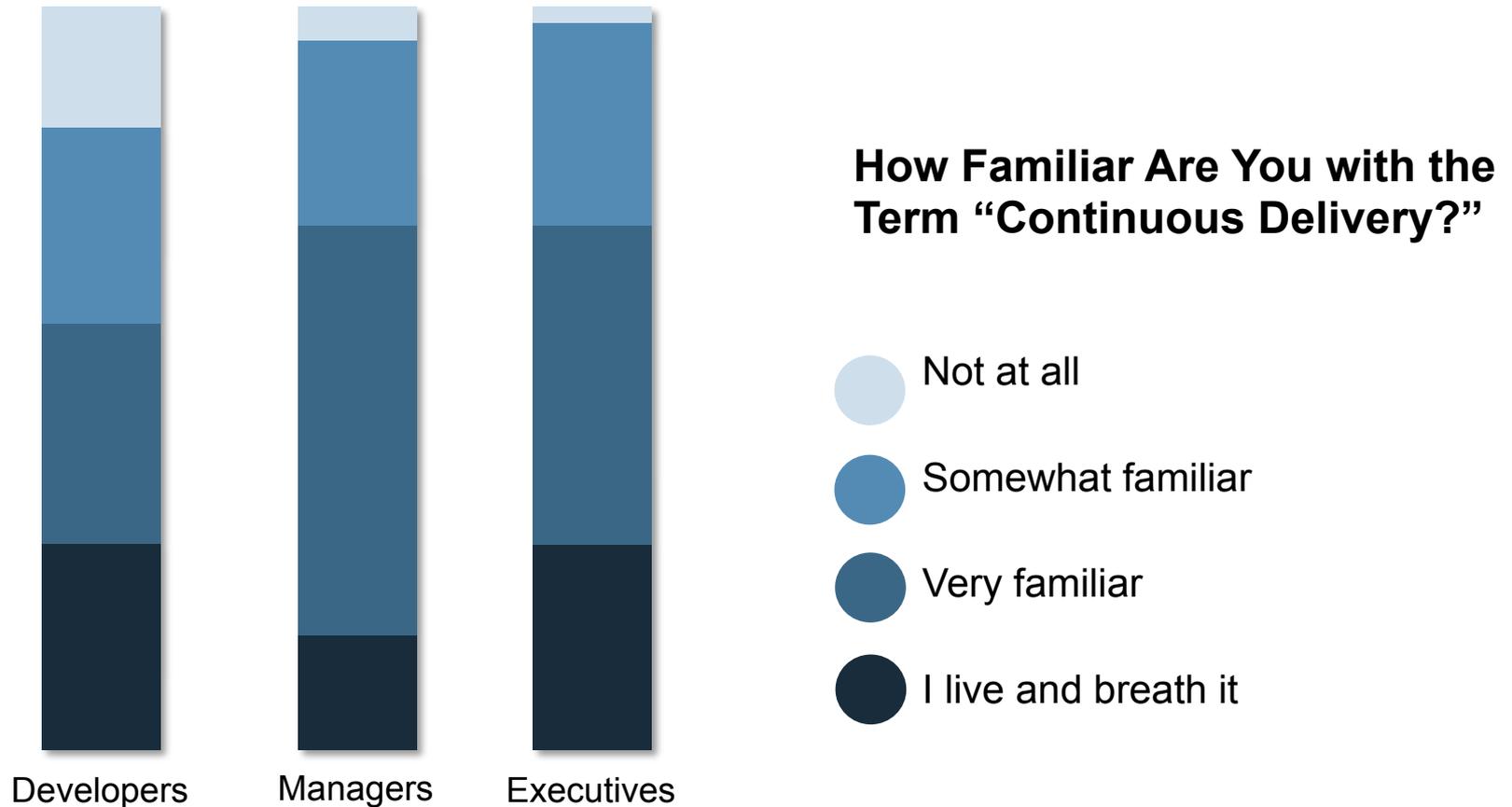
“Continuous Delivery is Reshaping the Future of ALM,”

Kurt Bittner, Forrester, July 2013

# Accelerated Delivery Means ...



# Growing Awareness



# What Does Continuous Delivery Mean to You?

## [ Automation ]

“It’s a process to improve software performance on a continual basis, with the use of automatic triggers.”

## [ Time ]

“Releasing early and often so that the act of learning is accelerated, risk is identified and you can react quicker.”

## [ Continuity ]

“The ability to continually adapt software in line with user feedback and changes in business.”

## [ Process ]

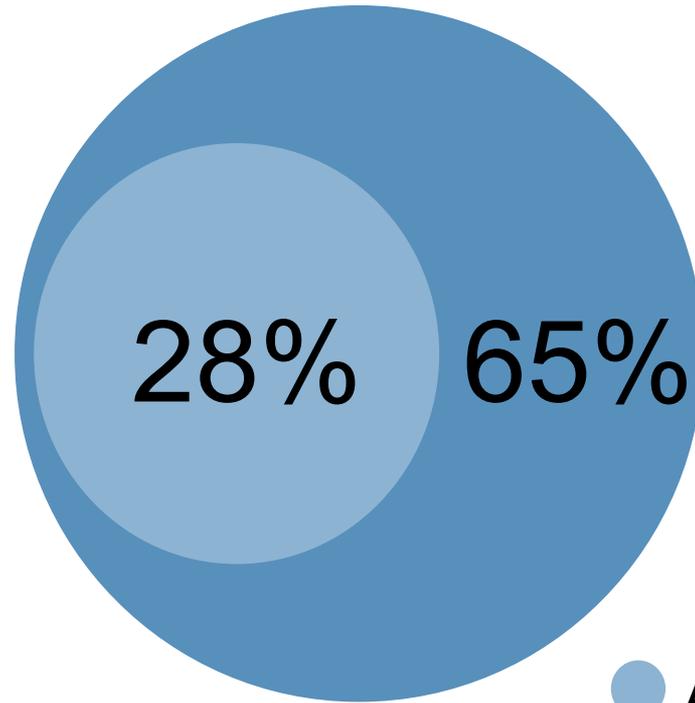
“It’s a process that ensures continuous tweaks, additions and improvements to our software systems.”



# Continuous Delivery – The New Normal

# 65%

of software developers, managers and executives report that their Organizations have started down the path to Continuous Delivery



-  All Projects
-  At Least Some Projects

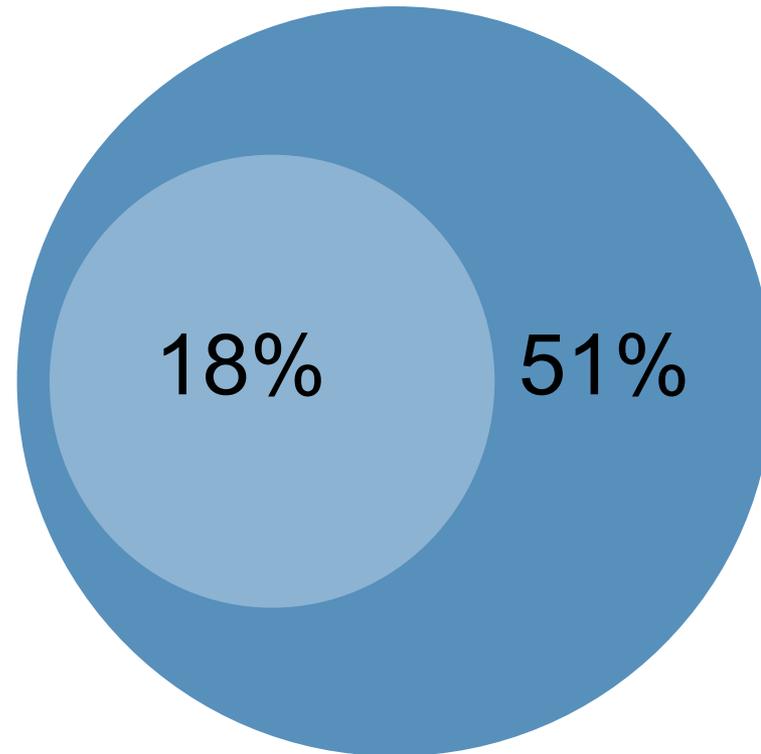
# It's Not Just for SaaS Anymore

## Non-SaaS Companies

# 80%

of SaaS companies are practicing Continuous Delivery

- 47% across ALL projects
- 33% across some projects

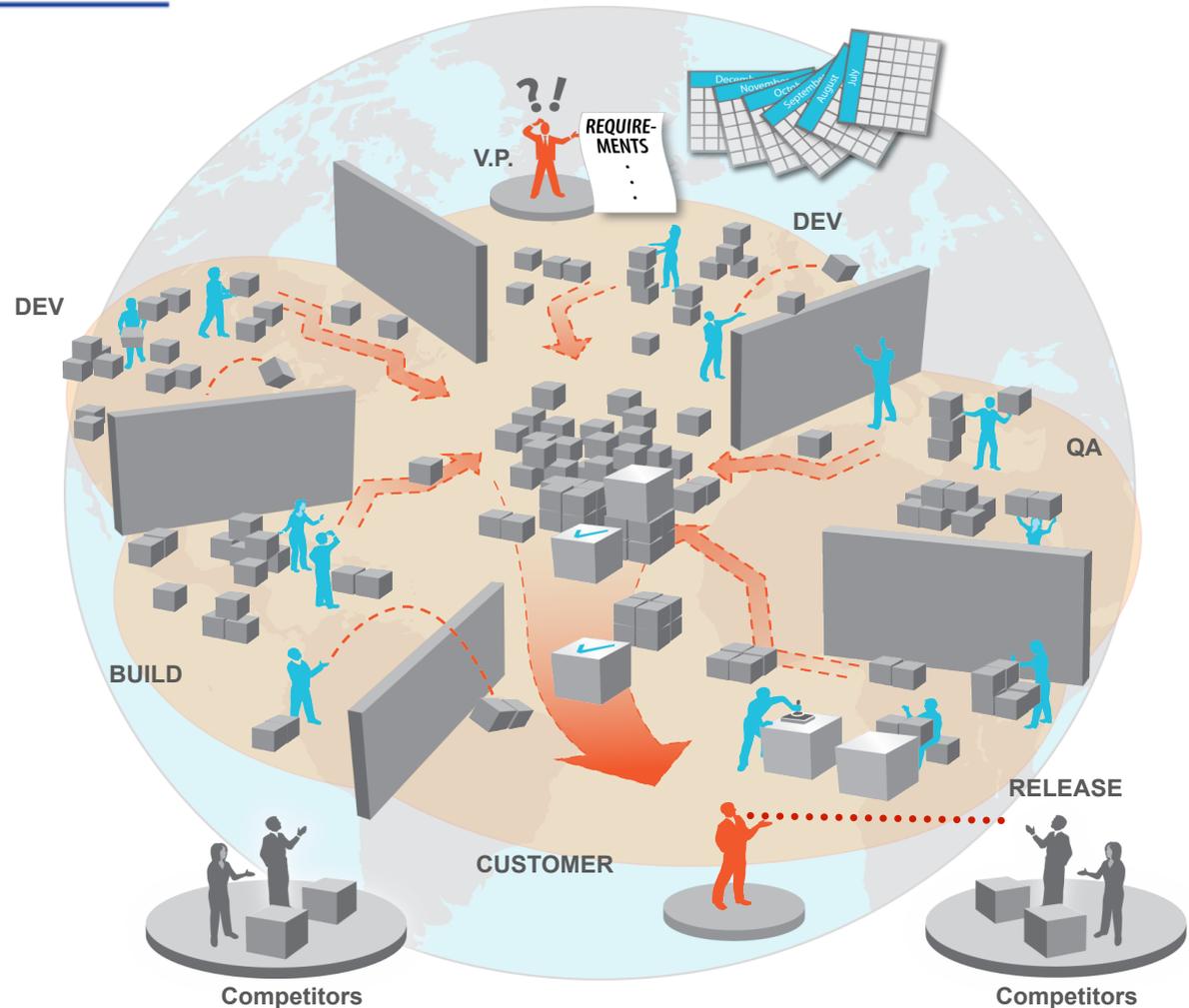


-  All Projects
-  At Least Some Projects

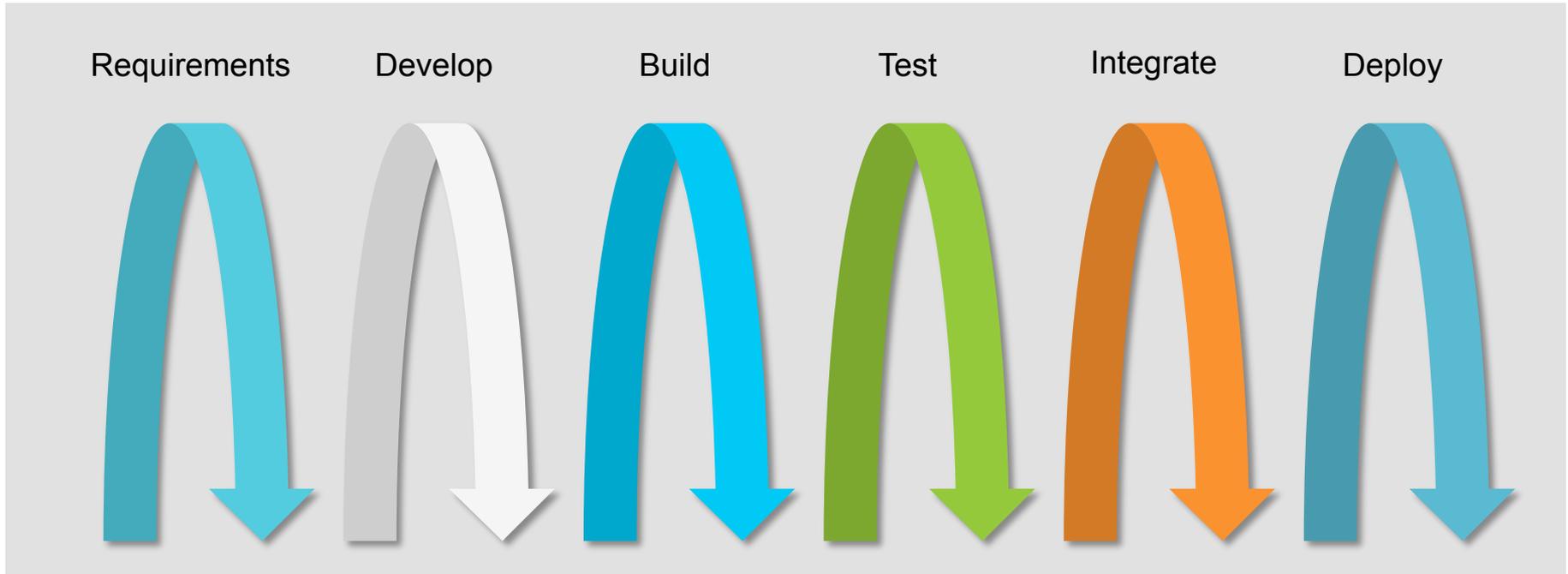
# Keeping up with the Joneses

# 46%

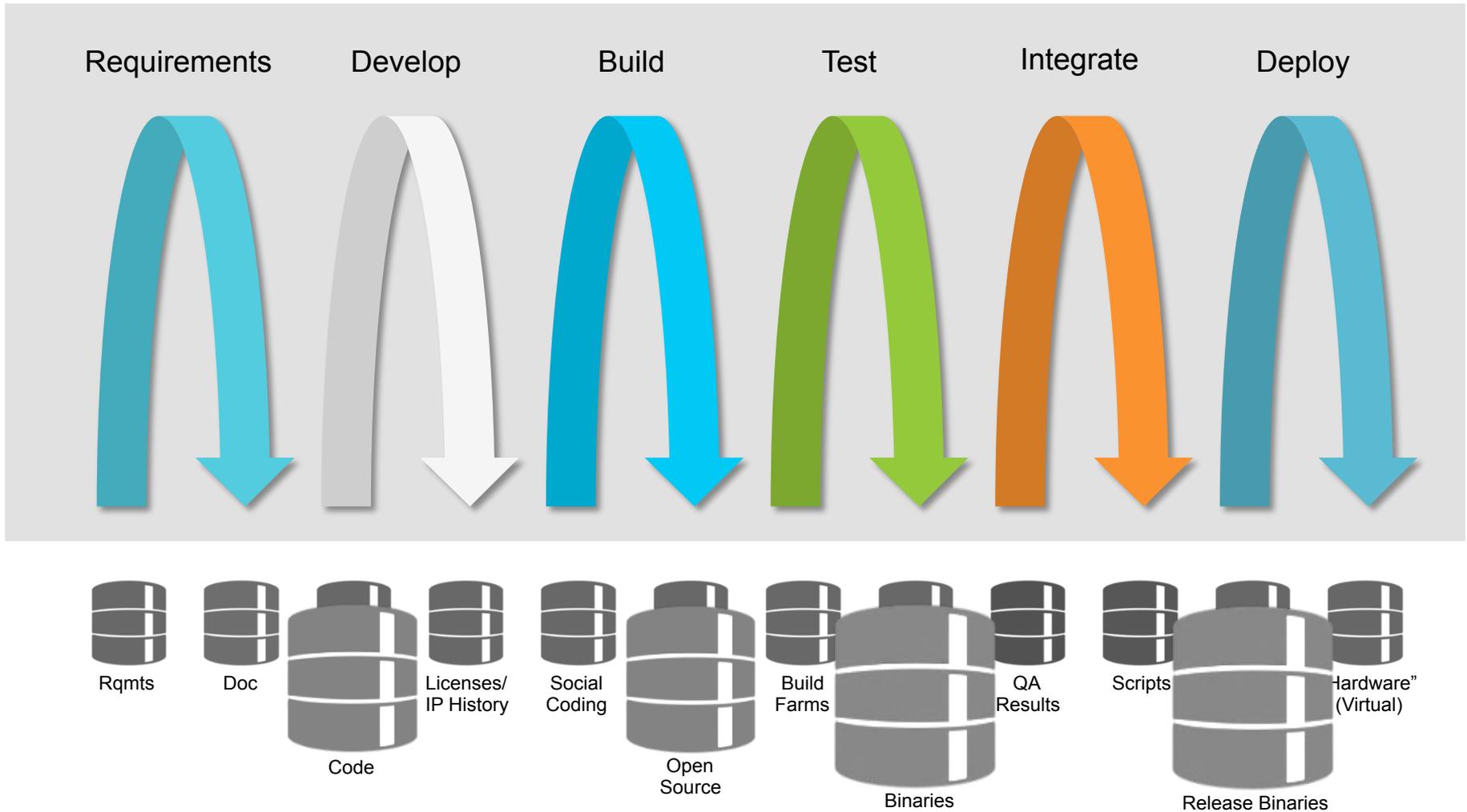
think their competitors  
have fully embraced  
Continuous Delivery



# Product Delivery Pipeline

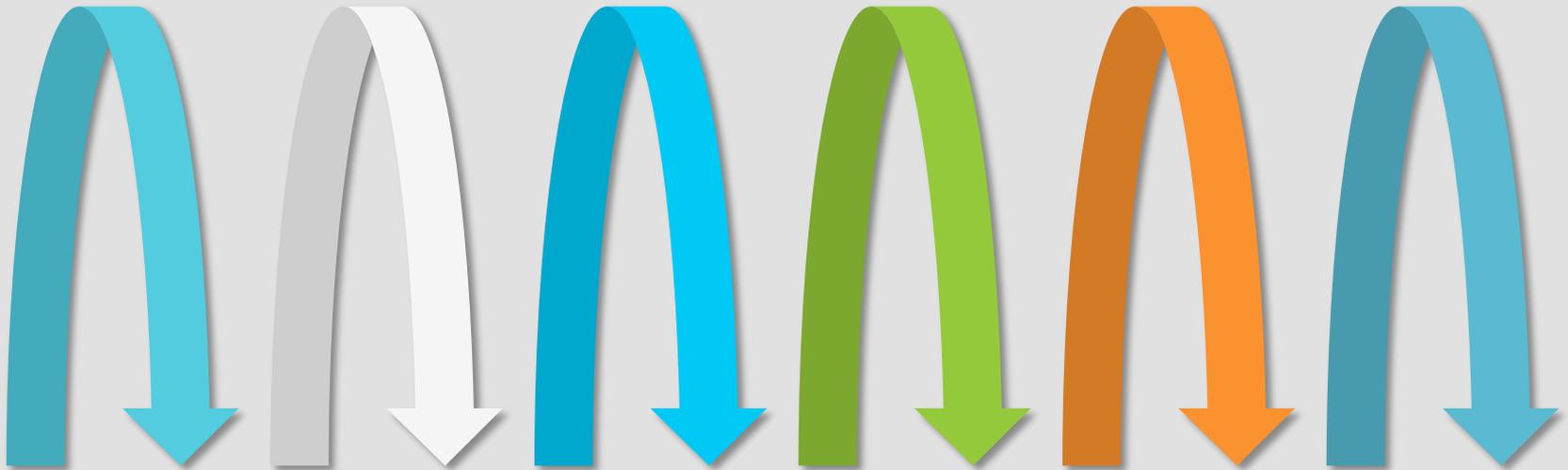


# Product Delivery Pipeline



# Product Delivery Pipeline

**Team Collaboration** (design, dev, release, devops...)



**Accelerate the Pipeline** (code, artwork, scripts, binaries, etc.)

Code

Open Source

Binaries

Release Binaries

# Version Everything – CCP Games

- Version absolutely \*everything\*
  - Instant workstation configuration
- Branching – “where it makes sense”
- “Nobody is born a versioning hero”
- “Versioning everything requires an investment. It’s worth it.”



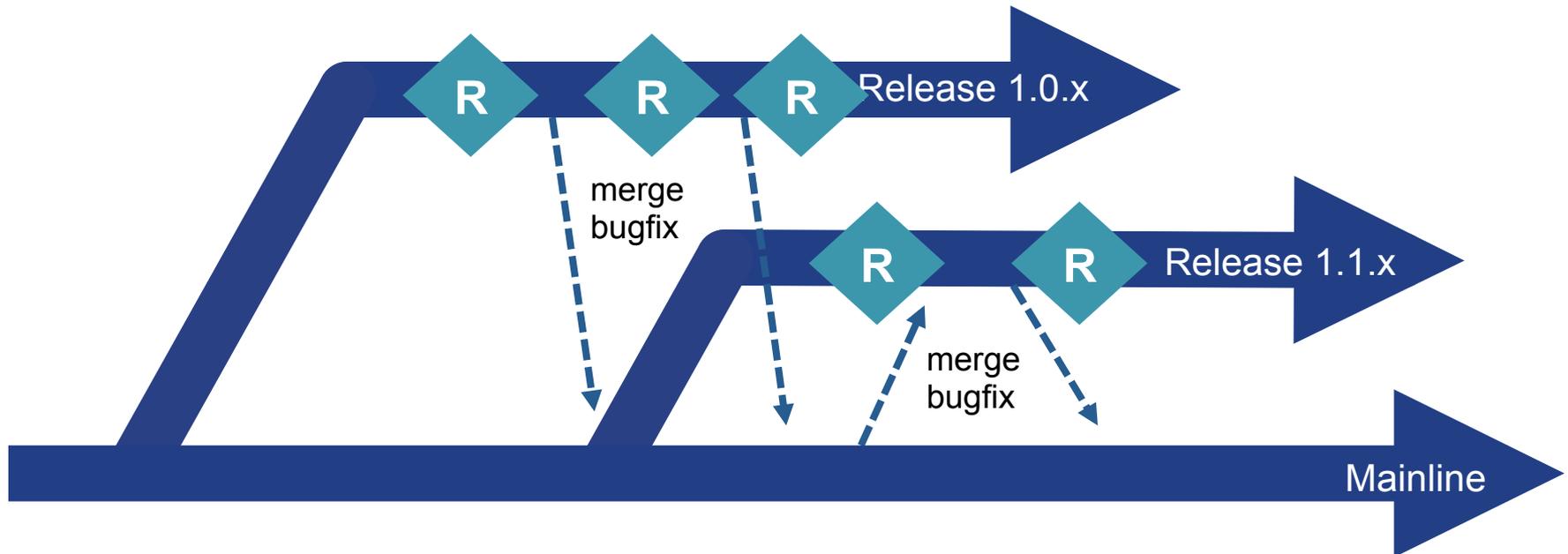
**{ Versioning is the nerve  
center of the organization }**

# At Scale ...

- First code check in: 1998
- 7800 users (88% of employees)
- 80,000,000 transactions/day
- 198 instances (55 RW, 14 RO, 4 Brokers and 125 scratch)
- 556 Million files comprising 1.3 Billion revisions
- 327 TB of data



# Mainline Release Branching Strategy



- Visibility
- Always deployable
- Continuous Integration, only create branches for releases
- Manage what gets into mainline
  - Continuous Integration
  - Code Review

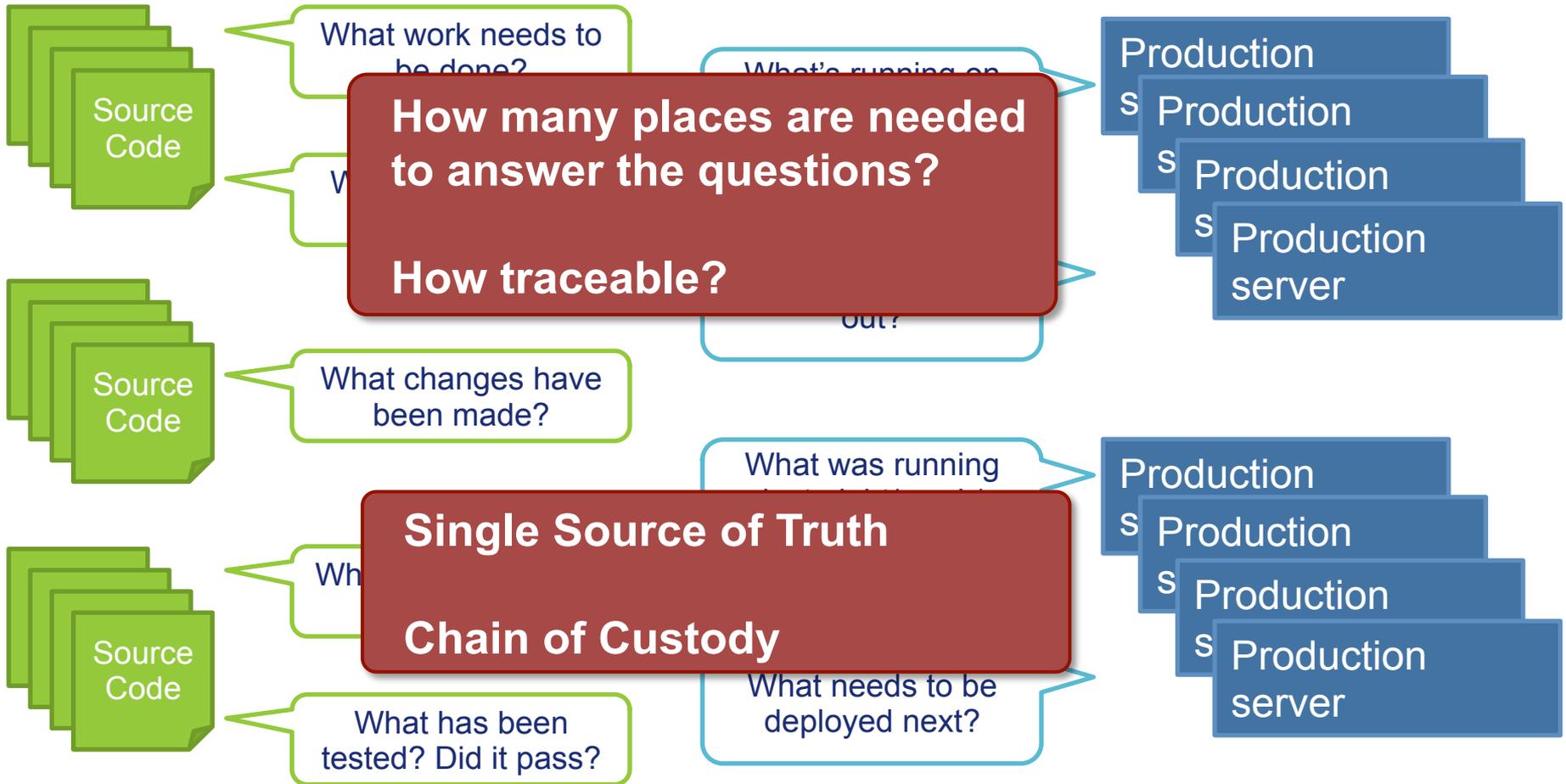
# Mainline – Salesforce.com

- 150 teams, 5,000 testing VMs, 500,000 files.
- Up to 10 million Perforce transactions per day, heading towards 15 – 20 million
- Mainline code model
- Fast feedback is key
- Security, audit, compliance. Easy audit process
- “Perforce is boring” – For ops team, that’s a very good thing!

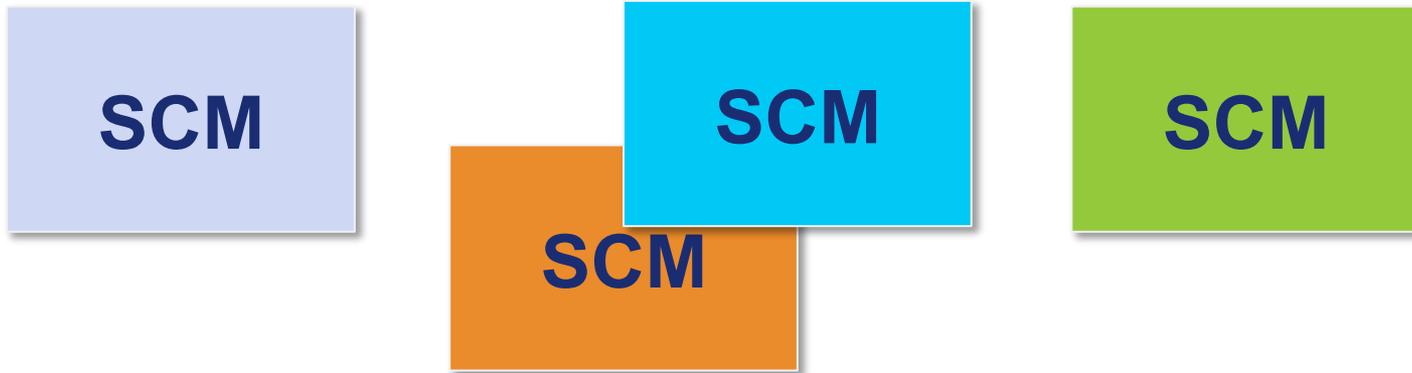
salesforce®

**Mainline is  
critical to  
collaboration**

# System of Record



# Single Source of Truth



- How many processes to learn?
- How many tool integrations to manage?
- How many admins?
- How to ensure availability?

## SCM

- Source Code
- Build Scripts
- Test scripts
- ...

## Artifact Repository

- Built executables
- Databases
- ...

- Are both needed?
- How to ensure traceability?
- How to provide audit trails?
- How to manage access controls?
- How many admins, processes, tools, ...?

# System of Record – NYSE

- 14,000 servers, 6,600 production releases per year, 198+ active projects
- Build artifacts stored in Perforce
- Version management enforces security
- Deploy “bridge” into production & rollback



**{ Single “source of truth” }**

# Perforce Overview

- Fastest, most scalable, Version management platform
- Commonly used for all types of content
  - Code
  - Binaries
  - Movies
  - Chip Designs
  - Gaming
  - Images



# Perforce Software

Electronics



13,000 → 20,000 users

SaaS

salesforce®

2,500 users

10,000,000 Perforce xact/day

Cloud

amazon.com®

11,000+ users

Mobile IC's



9,500 users

500+ terabytes



Enterprise



11,000+ users

10+ sites

Gaming



5,000+ users

Coders & Designers

Animation

P I X A R

Everything

Finance



Complete Delivery Pipeline

7,000+ releases/year

# Proven Platform for Continuous Delivery

Business  
Collaboration



Commons

Developer  
Collaboration



Swarm

Software/Digital  
Asset Versioning



Perforce



Git

Development  
Analytics



Insights

**Integrations**

## Perforce Versioning Engine

10,000+ users ... 10million+ transactions/day ... Petabytes+ data

# Best Habits for Success

1. Think beyond the code - Version \*everything\*
2. Automate, Automate, Automate
3. Make everything fully visible
4. Track every change
5. Put it all in one place



# Prizes !!!

- Perforce Stand – Floor 3
- Win a GoPro Camera



# For more information

For more use cases and information on  
the role of version management...

**[perforce.com](https://perforce.com)**

Please evaluate  
my talk via the  
mobile app!

