Pasoe Devops

You will find adventure, or adventure will find you

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Introduction

- Julian Lyndon-Smith
  - Chief Enterprise Architect, Build.One
  - Using progress since v3 .. maybe v4 ..
- Several open source projects
  - Stomp : messaging for ActiveMQ
  - Loki : generate openedge classes from OpenApi spec
  - Maia: generate openedge classes for database access
  - UIB utilities
  - v8Stuff.com and v9Stuff.com

What is DevOps ?

A portmanteau of “development” and “operations”

What is Portmanteau ?

- A large travelling bag, typically made of stiff leather and opening into two equal parts.
- A word blending the sounds and combining the meanings of two others, for example motel or brunch. Or DevOps

What is DevOps ?

- Develop and test in an environment similar to production
- Deploy builds frequently
- Deploy builds on-demand
- Validate quality continuously

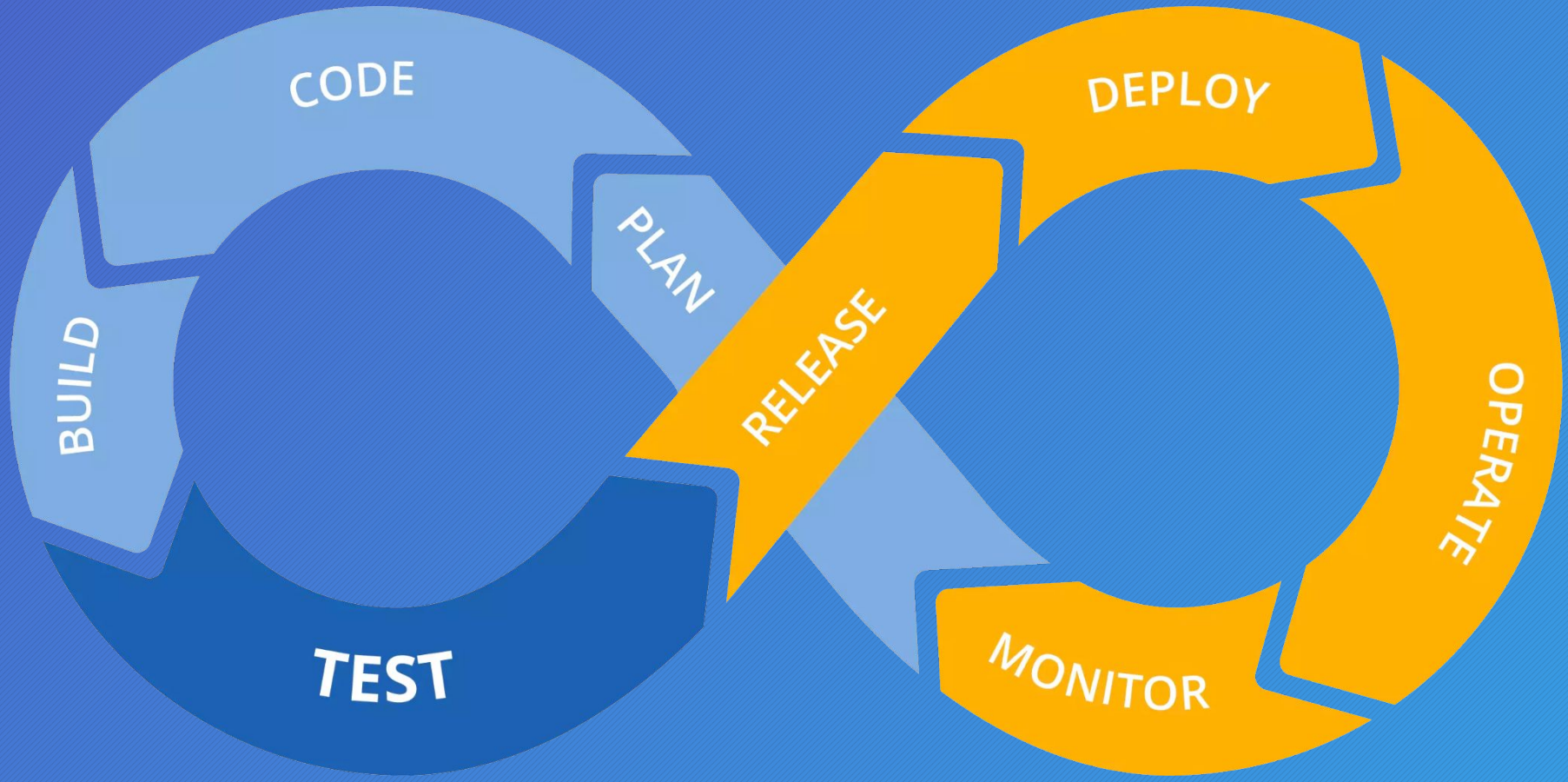
Drivers for DevOps Adoption

- Agile and other development processes
- Increased demand for reliable, predictable releases
- Availability of cloud / on premise infrastructure
- Wider selection of automated tools and configuration

Benefits of DevOps

- Speed
- Rapid delivery
- Reliability
- Improved collaboration
- Security

DevOps Cycle



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Get ready for DevOps

- Cloud / on-premise / hybrid
- Version control
- Asset management
- Application building
- Automation and CI/CD tools
- Development methodologies
- Ticket / project management

Where ?

- Cloud
- On premise
- Hybrid

Where did we go ?

Version control

- Do not use PILS
- Do not use the sneakerNet
- Do not use CNP
- Distributed vs Centralized
  - Not getting into a war
  - https://www.geeksforgeeks.org/centralized-vs-distributed-version-control-which-one-should-we-choose/

What did we choose ?

Asset management

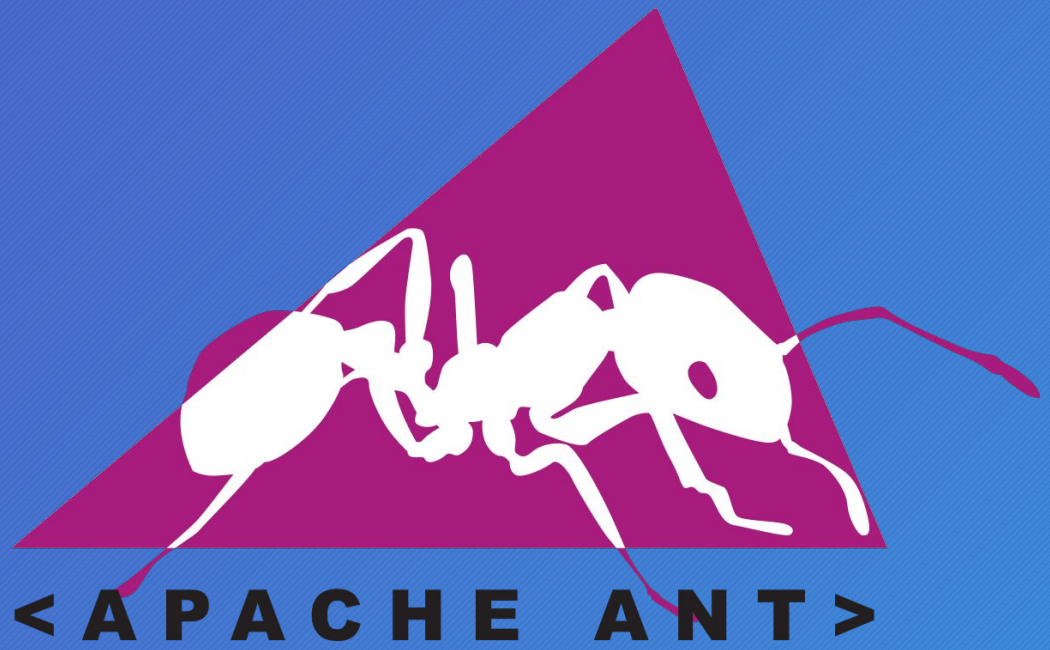
- Often overlooked
- Do not use version control for large files
- Store build images
- Store packages
- Source of truth

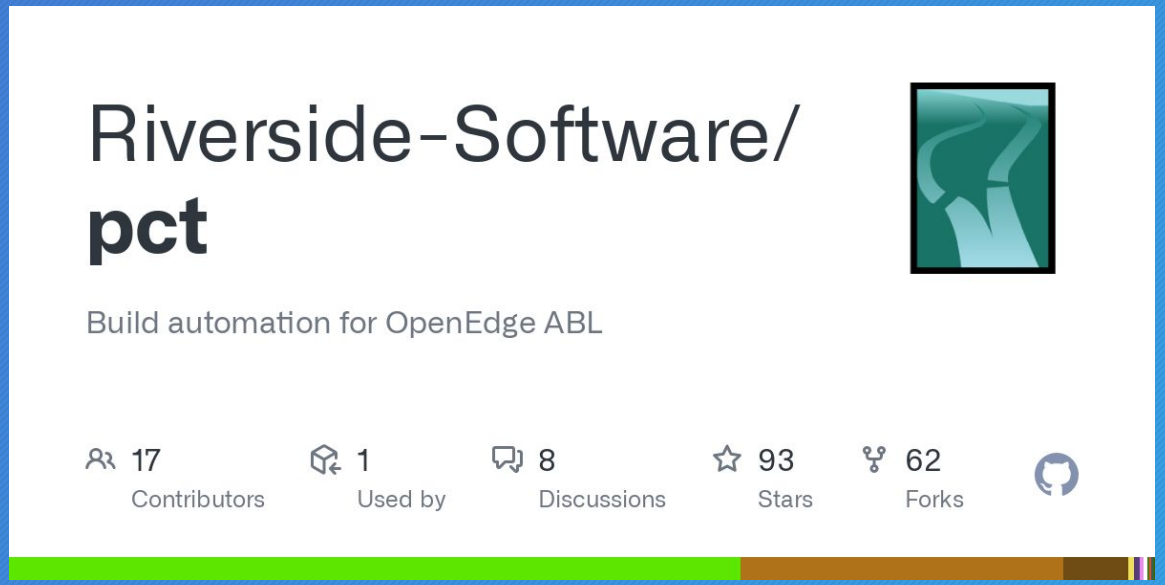
What did we choose ?

Application building

- “John’s PC has the compile tools” 😱
- Must be automated
- Compile all code
- Handle database
- Build procedure libraries
- Home grown vs package

What did we choose ?





Automation & CI/CD

- When / how/ what to build
- When / how/ what to test
- When / how/ what to publish
- Notifications
- Pipelines

What did we choose ?

Development Methodologies

- Waterfall
- Agile
- Rapid Application Development
- Dynamic Systems Model
- Feature Driven Development
- Scrum
- Lean Development

What did we choose ?

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Ticket / Project management

- Data readily available to Stakeholders
- Problem management
- Knowledge Management
- Linking tickets to sprints
- Workload management

What did we choose ?

Implementing Devops

- Ticket for everything
- Branch for each ticket
- Commit often
- Push often
- Local tests
- Branch builds
- Branch tests

Docker

- Major driver of DevOps
- Consistent images
  - Openedge, Pasoe
- Simple image installation
- Supported by many tools and processes
- Spin up for building, compiling, testing
- Simple distribution

Cloud based build tools

- Github actions
- Bitbucket
- Gitlab DevOps
- Integrations with CI/CD tools

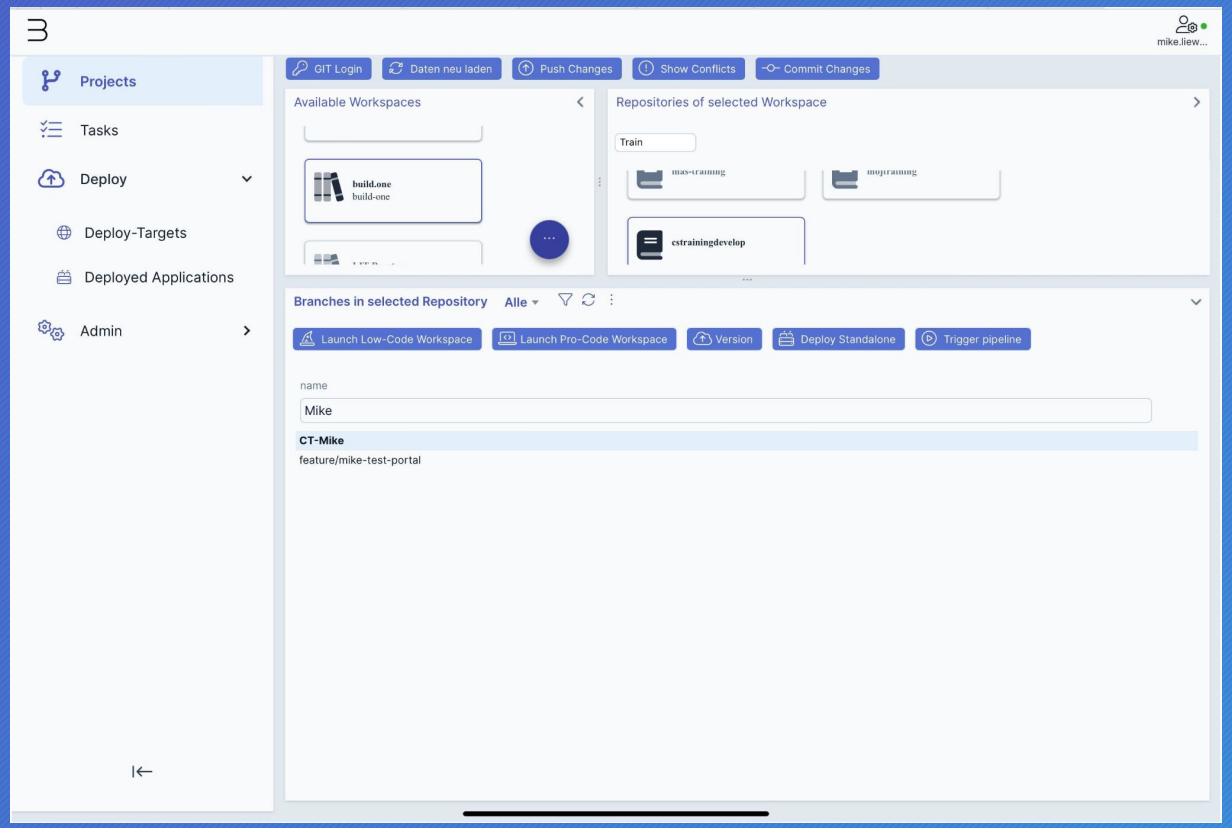
Deployment

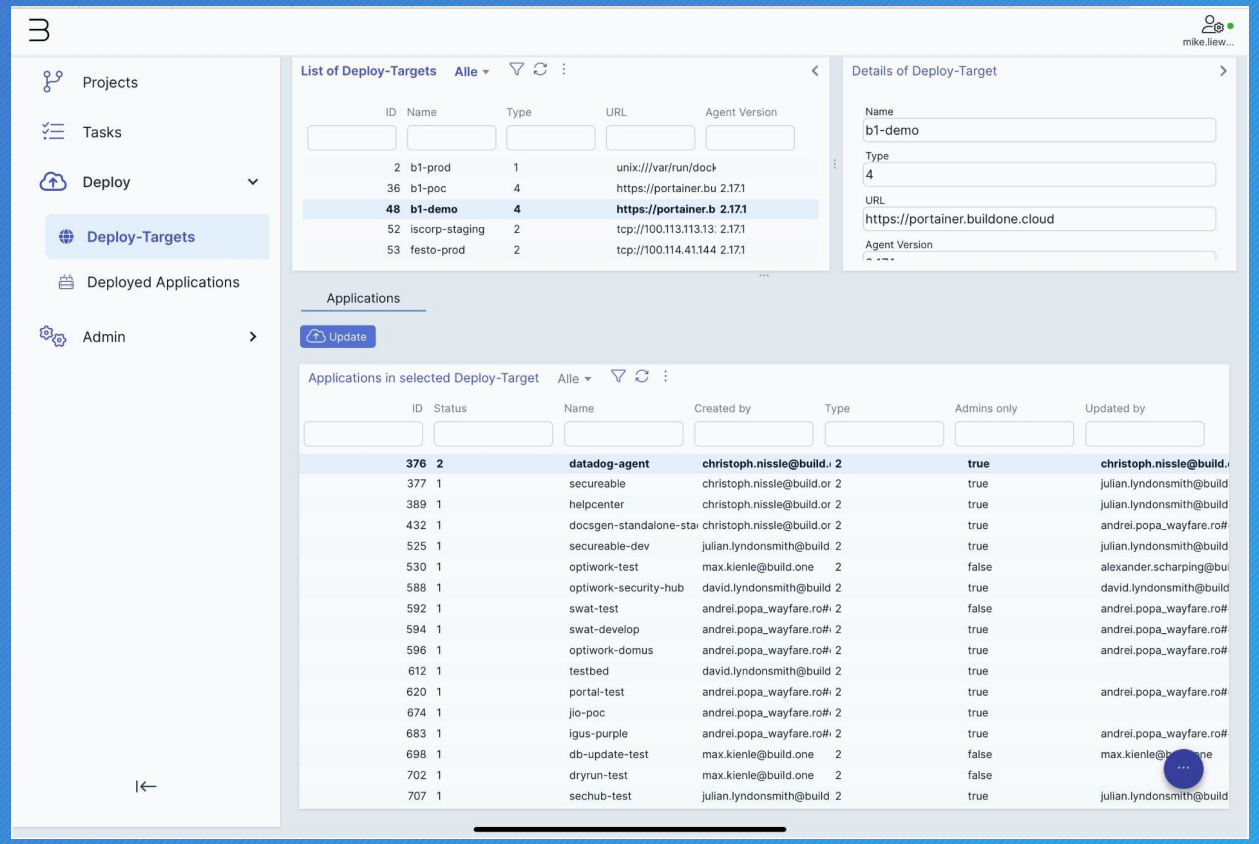
- To which platform ?
- Test / qa / acceptance / staging / prod
- How ?
- Upgrading
- Multi-tenant vs multi-instance

Deployment

- Kubernetes
- Docker Swarm
- Docker
- MicroVm
- Nomad
- Custom

Deployment





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A final piece of advice : Choose wisely !

- An average DevOps engineer in the United States costs in the range of $180K to $250K a year

PASOE Deployment tips

- Progress.cfg
- Clean pasoe
- Env substitution

The obligatory My Little Pony

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Questions