



ArgoCD in Prusa Research

Cloud Native Prague #1

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3.4.2023



ArgoCD



a declarative, GitOps continuous delivery tool for Kubernetes

- deploy to multiple clusters
- web UI
- core concept - **Application**
 - a group of Kubernetes resources (Kustomize, Helm, ...)
 - itself is a Custom Resource Definition (CRD)
 - => App of Apps pattern

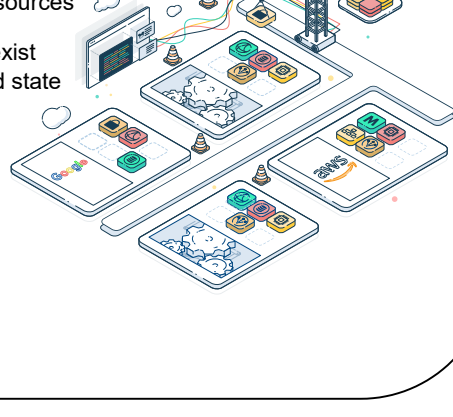
Crossplane



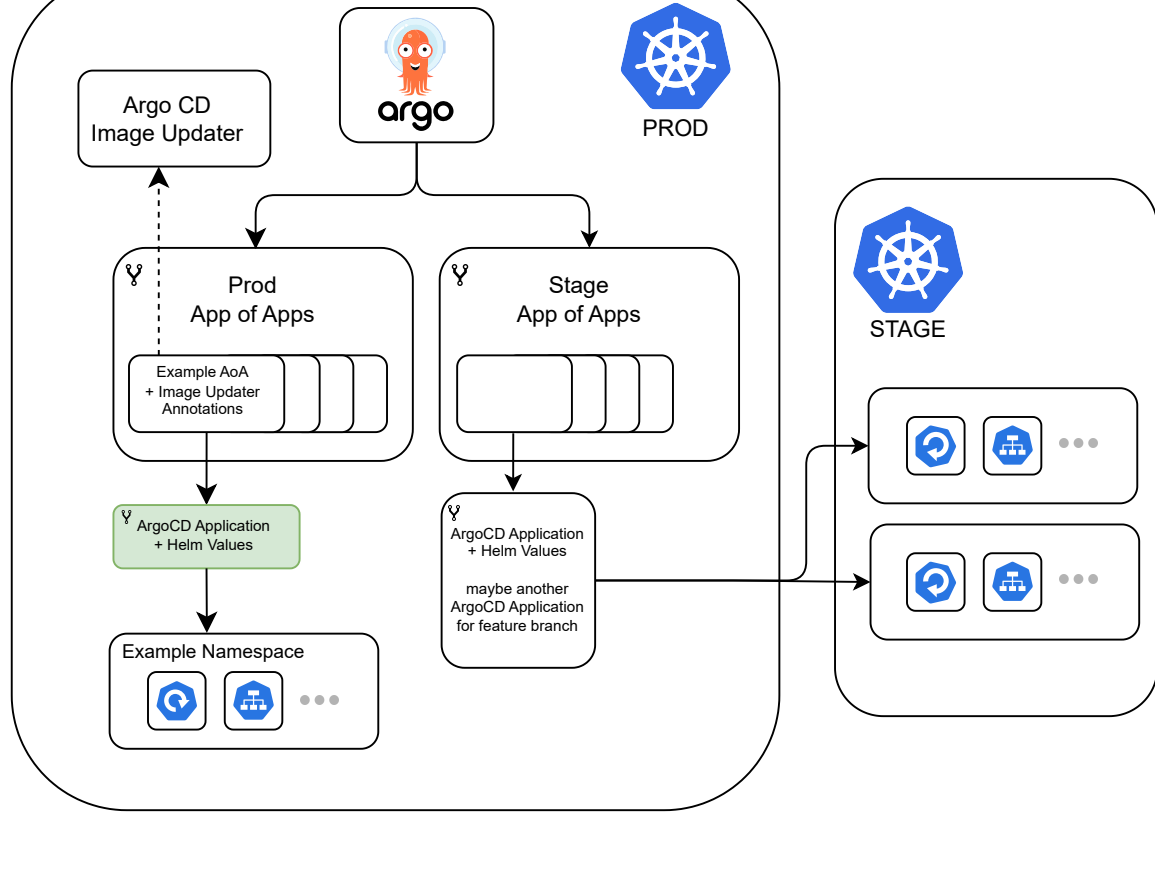
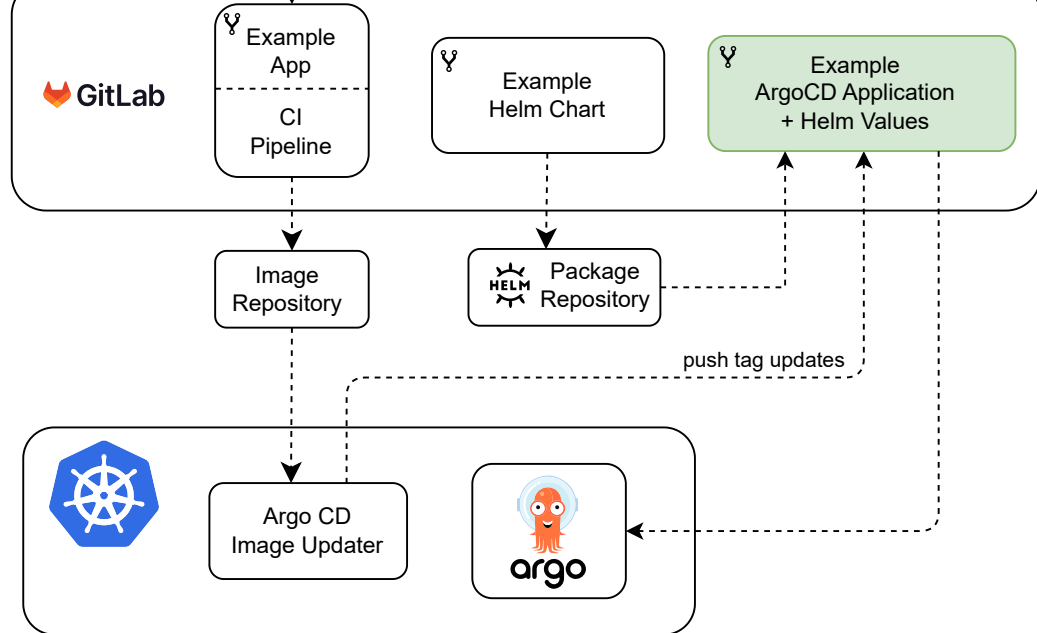
an open source tool that transforms your Kubernetes cluster into a **universal control plane**

A control plane manages the lifecycle of resources

- checks that the resources exist
- reports if not in the intended state
- acts to make things right



- manage anything, anywhere through k8s
- create custom APIs



DEMO

- app of apps
- manual vs. automatic synchronization
- web UI
- finalizers
- crossplane
 - bucket, SA and SA policy (workload identity)
 - database, user and grant

Image Updater

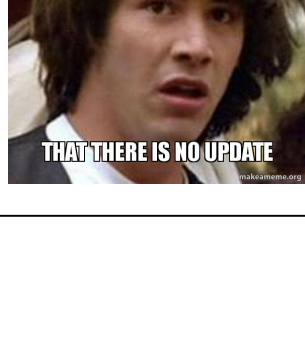


the real story

- git writeback + helm app source = hacky workaround :(

=> apps with multiple images get tags removed randomly

- log level not working



ArgoCD - other features



- login using Gitlab
- RBAC based on Gitlab groups
- notifications - Slack, Grafana, email, ...
- ApplicationSet - generate Applications from a template