

Jenkins X, Tekton Pipeline & Catalog



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Quick aside on Pipeline reuse

- In CI/CD we generally want to share pipelines/tasks across many repositories
 - But override things now and again when required
- In the Jenkins ecosystem this gave rise to:
 - Shared pipeline libraries
 - reusable functions refactored out of Jenkinsfiles
 - Templating of pipelines

Jenkins X v2 approach:

- Use a `jenkins-x.yml` file which can combine with a pipeline library
 - We have a DSL which wraps Tekton
 - Lets you inherit pipelines/steps from a shared git repository
 - Supports adding/removing/overriding steps etc
- Downsides:
 - Complex
 - Leaky abstraction

```
pipelineConfig:
  pipelines:
    overrides:
      - pipeline: release
        name: helm-release
        step:
          image: busybox
          sh: echo "this command is replaced"
```

Jenkins X v3 Aims:

- Make it super easy to reuse any Tekton Pipeline/Task
- Make it easy to work with the Tekton Catalog
- Support sharing Pipelines + Tasks across repositories
- Share Jenkins X Pipelines in a format Tekton Catalog users can consume

[Jenkins X v3 Pipeline Catalog Documentation](#)

Options for Sharing Tasks

- Reference a kubernetes resource by name
 - If you have 10 repositories sharing the resource you probably want to add versioning to the name to handle change across time and repositories
- Reference a Task via [bundle](#)
 - I.e. a path in a container image with version/tag
 - Or maybe via a git repository and SHA
 - Coming soon in 0.18.x of tekton hopefully...

Share Pipelines across repositories

- Based on [Brian Grant's document](#) we like the idea of sharing YAML...
 - So we copy YAML resources (helm charts / pipelines tasks) via kpt
- Use [kpt](#) to share resources across repositories
 - Lets you share files but modify them locally