Configuration As Code

The Job DSL Plugin

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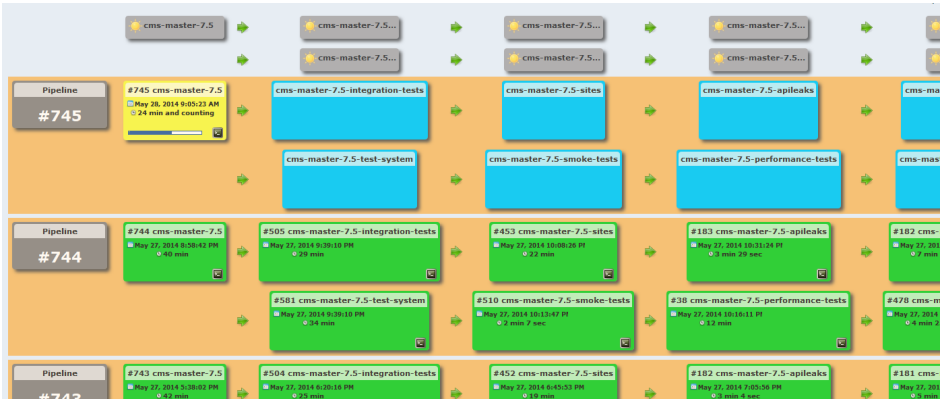
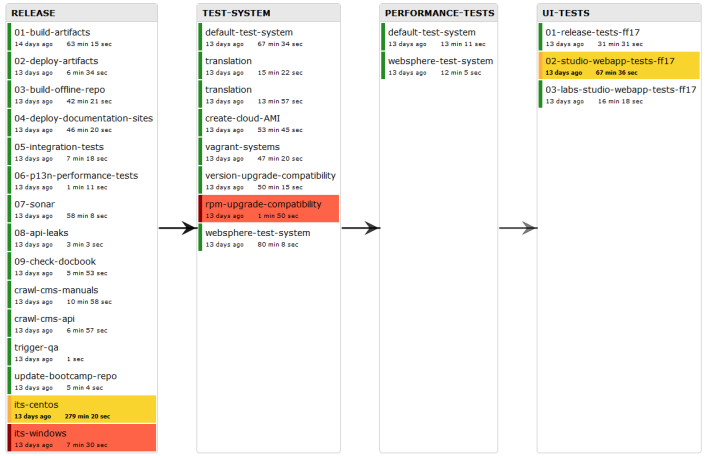
#jenkinsconf

Current Situation

- No single job that builds everything
- Each branch needs its own pipeline
- Every team has their own jobs



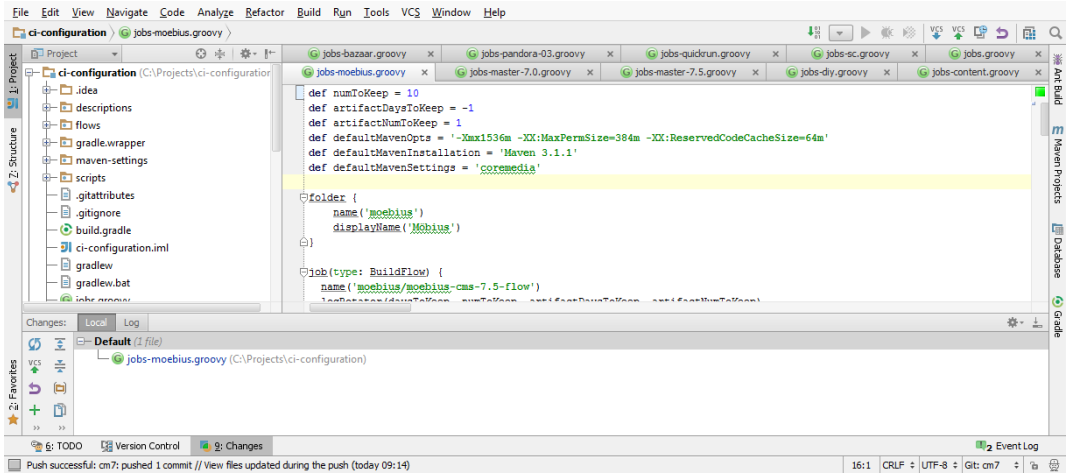


Problem

- Lots of copy&paste
- Editing in HTML text areas
- Settings hidden behind Advanced button
- Working with the UI can be slow

Configuration As Code

- Create new pipelines quickly
- Refactor jobs
- Trace changes
- Work with your favorite tool set



There Is A Plugin For That

- Template Project Plugin
- Job Generator Plugin
- Literate Plugin
- JobConfigHistory Plugin
- …

- **Job DSL Plugin**

Job DSL Language


```
job {
  name('job-dsl-plugin-folders')
  scm {
    github('daspilker/job-dsl-plugin', 'folders')
  }
  triggers {
    githubPush()
  }
  steps {
    gradle('clean build')
  }
  publishers {
    archiveArtifacts('**/job-dsl.hpi')
  }
}
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- Create free-style project
- Add “Source Code Management”
- Add “Process Job DSL” build step
- Configure scripts
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☑	Job DSL Plugin The job-dsl-plugin allows the programmatic creation of projects using a DSL. Pushing job creation into a script allows you to automate and standardize your Jenkins installation, unlike anything possible before.	1.22

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Item name seed

Build a free-style software project

This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

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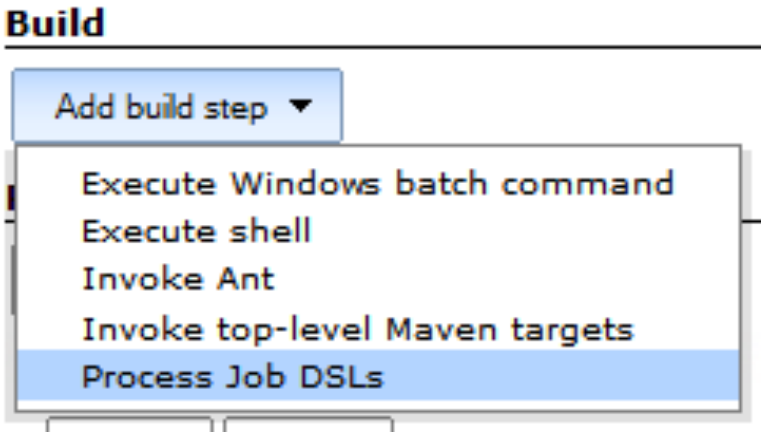

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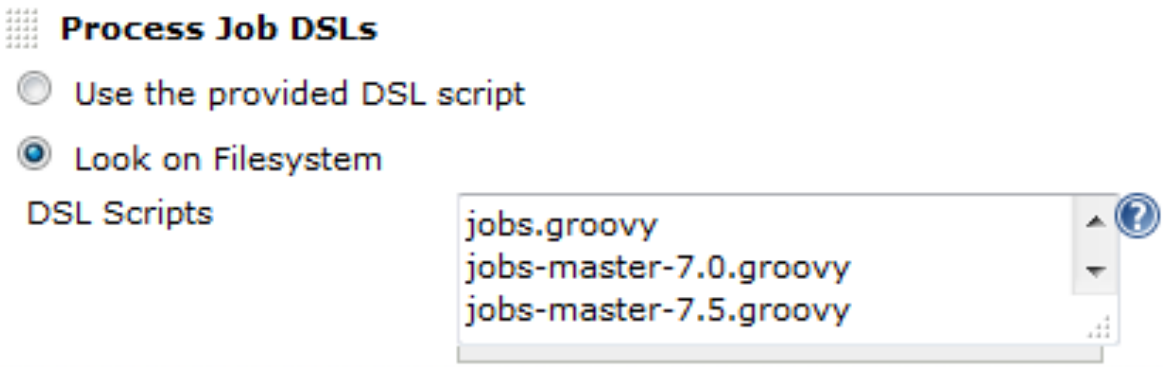

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Generated Items:

- cm6-ci-master-retest
- cm6-ci-fullfeatured-retest
- cm6-installer-ci-retest
- cms-5.2-ci
- cmV-ci-retest
- cms-5.2.1456-release-hotfix
- cm7-master-7.5
- cm7-test-system
- livecontext-wcs-customizations
- livecontext-wcs-qa
- livecontext-feed-cm-content
- purge-workspaces
- licensemanager-master
- release-utils
- technology-radar
- job-dsl-plugin-master

Batteries Included

StashNotifier
Git
Workspace Cleanup
Subversion
Text-Finder
Release
EnvInject
Job DSL
JaCoCo
Perforce
Associated Files
Conditional BuildStep
Copy Artifact
GitHub
Ant
Folders
AnsiColor
Robot Framework
JSHint Checkstyle
Build Flow
Xvnc
Groovy
Gradle
Extra Columns
Tool Environment
Emma
Timestamper
Maven Deployment Linker
Throttle Concurrent Builds
GitHub Pull Request Builder
Build Pipeline
Maven Project
Prerequisite Build Step
Multiple SCMs

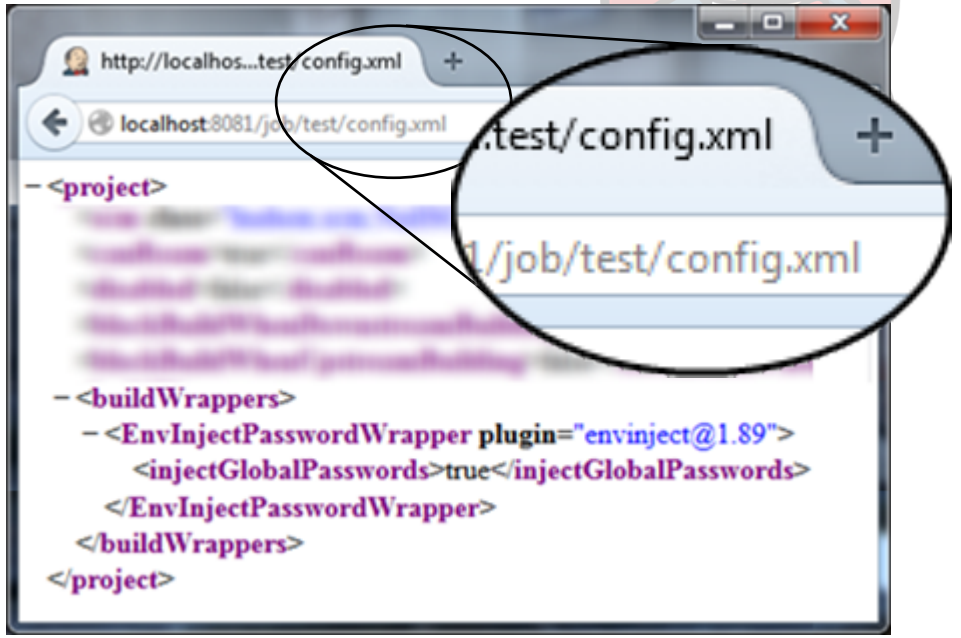
Extending The DSL

Build Environment

- [ ] Inject environment variables to the build process
- [x] Inject passwords to the build as environment variables

Global passwords [x]

Extending The DSL



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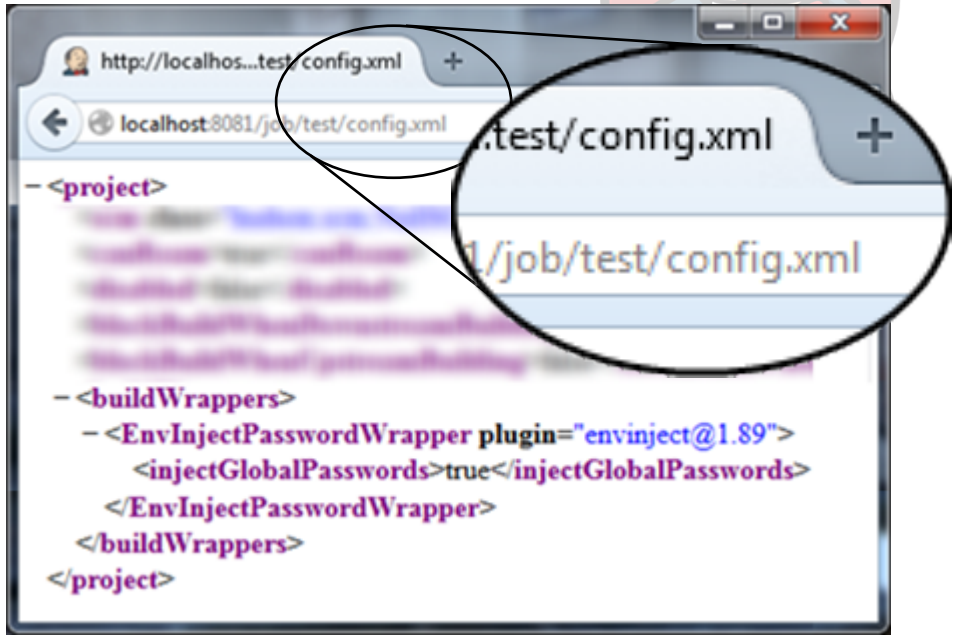


```
job {
  ...
  configure { project ->
    project / buildWrappers << EnvInjectPasswordWrapper {
      injectGlobalPasswords(true)
    }
  }
}
```

Everything is Groovy


```
@Grab(…)
…
gitHub.user('daspilker').repos.each { repo ->
  repo.branches.each { branch ->
    job {
      name("${repo.name}-${branch.name}")
      scm {
        github(repo.name, branch.name)
      }
      …
    }
  }
}
```

Further Information

- Documentation
  https://github.com/jenkinsci/job-dsl-plugin/wiki
- Examples
  https://github.com/sheehan/job-dsl-gradle-example
- Playground
  http://job-dsl.herokuapp.com/
- Mailing List
  https://groups.google.com/forum/?fromgroups#!forum/job-dsl-plugin

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