1   CheatSheet: Concourse   VMᴡᴀʀᴇ

- PDF Link: cheatsheet-concourse-A4.pdf, Category: vmware

- Blog URL: `https://cheatsheet.dennyzhang.com/cheatsheet-concourse-A4`

- Related posts: Bosh CheatSheet, PKS CheatSheet, #denny-cheatsheets

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1.1   Concourse Concepts

Name	Summary
fly	Pipelines are configured entirely via fly CLI
Teams	Every pipeline and one-off build belongs to a team.
Targets	Alias of Concourse endpoints
Pipelines	A pipeline is the result of configuring Jobs and Resources together.
Jobs	Jobs determine the actions of your pipeline,
Resource	Allow you to define inputs and outputs to jobs in a pipeline
Tasks	The smallest configurable unit in a Concourse pipeline is a single task.
Step: tags	Use tag to match workers
bbl (bosh-bootloader)	Command line utility for standing up a BOSH director on any IAAS
Reference	Link: Concourse Concepts, Link: concoursetutorial.com

1.2   Concourse Resources & Examples

Name	Summary
Hello world pipeline	example: helloworld.yml
Pass output to input across different tasks	example: tasks-output-input.yml
Trigger pipeline test every 5 minutes	example: run-test-regularly.yml
git-resource	example: example-git.yml
concourse-curl-resource: http download link	example: url-download.yml
file-downloader-resource	enable downloading pivotal product files and stemcells
github-release	
docker-image-resource: docker image	
gcs-resource: google bucket	
Reference	GitHub: pcf-pipelines

1.3   Concourse Containers

Name	Summary
Login to container	`fly -t $target hijack -u $job_url`
Run command without sudden exit	`nohup SOMECOMMAND &; tail -f nohup.out`
Hijack to containers with a successful run	By design when task has passed, the container will be deleted

1.4   Concourse Pipeline

Name	Summary
List all authenticated end points	`fly targets`
Get fly version	`fly --version`
fly login	`fly -t $target login -c $concourse_url -n $team_name`
Get pipeline definition	`fly -t $target get-pipeline -p $job-name > job.yaml`
Update pipeline	`fly -t $target set-pipeline -p $pipeline_name -c pipeline.yml -l credentials.yr`
Update pipeline	`fly -t $target set-pipeline -p $pipeline_name -c pipeline.yml -v env1=var1`
Destroy pipeline	`fly -t $target destroy-pipeline -p $pipeline_name`
Format pipeline	`fly format-pipeline -c pipeline.yml`
Validate pipeline	`fly validate-pipeline -c pipeline.yml`

https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-concourse-A4/concourse-sample.png

1.5   Concourse Security

Name	Summary
Fly login to the default main team	`fly -t $target login -n main -c $concourse_url`
Fly login to a different team	`fly -t $target login -n $team_name -c $concourse_url`
List all teams	`fly -t $target teams`, `fly -t $target teams -d`
Fly logout all targets	`fly logout --all`
Install ansible vault in mac	`brew install ansible`
Create a team	`fly -t $target set-team -n $team_name --allow-all-users`
Destroy a team	`fly -t $target destroy-team --team-name $team_name`
Grant Github team access	`fly -t $target set-team -n $team_name --github-org $my_org`
Login to a team	`fly -t $target set-team -n $team_name`
Fly conf file	`~/.flyrc`
Reference	After login to the **main** team, you can update other teams. Link: Concourse Team

1.6   Concourse Workers

Name	Summary
List all concourse workers	`fly -t $target workers`
List all concourse containers	`fly -t $target containers`

https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-concourse-A4/concourse-design.png

1.7   fly Online Usage

```
bash-3.2$ fly --help
error: Usage:
  fly [OPTIONS] <command>

Application Options:
  -t, --target=              Concourse target name
  -v, --version              Print the version of Fly and exit
      --verbose              Print API requests and responses
      --print-table-headers  Print table headers even for redirected output

Help Options:
  -h, --help                 Show this help message

Available commands:
  abort-build        Abort a build (aliases: ab)
  builds             List builds data (aliases: bs)
  check-resource     Check a resource (aliases: cr)
  checklist          Print a Checkfile of the given pipeline (aliases: cl)
  containers         Print the active containers (aliases: cs)
  destroy-pipeline   Destroy a pipeline (aliases: dp)
  destroy-team       Destroy a team and delete all of its data (aliases: dt)
  execute            Execute a one-off build using local bits (aliases: e)
  expose-pipeline    Make a pipeline publicly viewable (aliases: ep)
  format-pipeline    Format a pipeline config (aliases: fp)
  get-pipeline       Get a pipeline's current configuration (aliases: gp)
  help               Print this help message
  hide-pipeline      Hide a pipeline from the public (aliases: hp)
  hijack             Execute a command in a container (aliases: intercept, i)
  jobs               List the jobs in the pipelines (aliases: js)
  login              Authenticate with the target (aliases: l)
  logout             Release authentication with the target (aliases: o)
  order-pipelines    Orders pipelines (aliases: op)
  pause-job          Pause a job (aliases: pj)
```

```
pause-pipeline      Pause a pipeline (aliases: pp)
pause-resource      Pause a resource (aliases: pr)
pipelines           List the configured pipelines (aliases: ps)
prune-worker        Prune a stalled, landing, landed, or retiring worker (aliases: pw)
rename-pipeline     Rename a pipeline (aliases: rp)
rename-team         Rename a team (aliases: rt)
set-pipeline        Create or update a pipeline's configuration (aliases: sp)
set-team            Create or modify a team to have the given credentials (aliases: st)
status              Login status
sync                Download and replace the current fly from the target (aliases: s)
targets             List saved targets (aliases: ts)
teams               List the configured teams (aliases: t)
trigger-job         Start a job in a pipeline (aliases: tj)
unpause-job         Unpause a job (aliases: uj)
unpause-pipeline    Un-pause a pipeline (aliases: up)
unpause-resource    Unpause a resource (aliases: ur)
validate-pipeline   Validate a pipeline config (aliases: vp)
volumes             List the active volumes (aliases: vs)
watch               Stream a build's output (aliases: w)
workers             List the registered workers (aliases: ws)
```

1.8   fly set-pipeline Online Usage

```
> fly  set-pipeline --help
error: Usage:
  fly [OPTIONS] set-pipeline [set-pipeline-OPTIONS]

Application Options:
  -t, --target=                 Concourse target name
  -v, --version                 Print the version of Fly and exit
      --verbose                 Print API requests and responses
      --print-table-headers     Print table headers even for redirected output

Help Options:
  -h, --help                    Show this help message

[set-pipeline command options]
      -n, --non-interactive     Skips interactions, uses default values
          --no-color            Disable color output
          --check-creds         Validate credential variables against credential manager
      -p, --pipeline=           Pipeline to configure
      -c, --config=             Pipeline configuration file
      -v, --var=[NAME=STRING]   Specify a string value to set for a variable in the pipeline
      -y, --yaml-var=[NAME=YAML] Specify a YAML value to set for a variable in the pipeline
      -l, --load-vars-from=     Variable flag that can be used for filling in template values in configur
```

1.9   More Resources

```
http://www.mikeball.info/blog/concourse-git-resource/
  https://concoursetutorial.com/
```
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