1 CheatSheet: Concourse   VMware

- 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 Advanced

Name	Summary
fly set-pipeline run into "error: forbidden"	Need to logout from both ~~fly client~~ (`fly logout --all`) and ~~Concourse GU~~
github-release resource cannot find old tag	`fly -t $target cr -r $pipeline-name/$resource-name -f tag:$tag` I
List team details for all targets	`fly -t $target teams -d`, `~/.flyrc`
Concourse UI runs into a blank page	If pipeline has recursive dependencies, Concourse UI may have issue to run
Split one pipeline yaml into small **reusable** pieces	Not supported. An uncomfortable workaround: generating yaml with other
Add a readonly member to one team	Not supported. Concourse only support authentication control, but not auth
Hijack to containers with a successful run	Not supported. By design when task has passed, the container will be delete
Does Concourse have REST API?	Not supported so far. Link: GitHub, Link: Concourse REST endpoints
Reference	concourse-tutorial, concourse-pipeline-samples

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
github-release	
docker-image-resource: docker image	
gcs-resource: google bucket	
file-downloader-resource	enable downloading pivotal product files and stemcells
PCF pipelines examples	GitHub: pcf-pipelines

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

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`

1.4 Concourse Concepts

Name	Summary
fly	Pipelines are configured entirely via the fly. There is no GUI.
Teams	
Targets	Alias of Concourse endpoints
Pipelines	
Jobs	
Tasks	
Resource	Allow you to define inputs and outputs to jobs in a pipeline
Behaviors	
Step: tags	Use tag to match workers
bbl (bosh-bootloader)	GitHub: bosh-bootloader
Reference	Link: Concourse Concepts, Link: concoursetutorial.com

1.5 Concourse Pipeline

Name	Summary
List all authenticated end points	`fly targets` Link: 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` Link: fly-getpipeline
Update pipeline	`fly -t $target set-pipeline -p $pipeline_name -c pipeline.yml -l credentials.y`
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`

1.6 Concourse Security

Name	Summary
Install ansible vault in mac	`brew install ansible`
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`
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

1.7 Concourse Workers

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

1.8 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)
```

1.9   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
```

1.10   More Resources

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