

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 <code>fly-client</code> (<code>fly logout --all</code>) and <code>Concourse GUI</code>
github-release resource cannot find old tag	<code>fly -t \$target cr -r \$pipeline-name/\$resource-name -f tag:\$tag</code>
List team details for all targets	<code>fly -t \$target teams -d, ~/.flyrc</code>
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	<code>fly -t \$target hijack -u \$job_url</code>
Run command without sudden exit	<code>nohup SOMECOMMAND & tail -f nohup.out</code>

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	<code>fly targets</code> Link: fly targets
Get fly version	<code>fly --version</code>
fly login	<code>fly -t \$target login -c \$concourse_url -n \$team_name</code>
Get pipeline definition	<code>fly -t \$target get-pipeline -p \$job-name > job.yaml</code> Link: fly-getpipeline
Update pipeline	<code>fly -t \$target set-pipeline -p \$pipeline_name -c pipeline.yml -l credentials.yml</code>
Update pipeline	<code>fly -t \$target set-pipeline -p \$pipeline_name -c pipeline.yml -v env1=var1</code>
Destroy pipeline	<code>fly -t \$target destroy-pipeline -p \$pipeline_name</code>
Format pipeline	<code>fly format-pipeline -c pipeline.yml</code>
Validate pipeline	<code>fly validate-pipeline -c pipeline.yml</code>

1.6 Concourse Security

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

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
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[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 configuration

1.9 More Resources

<http://www.mikeball.info/blog/concourse-git-resource/>

<https://concoursetutorial.com/>

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