k3d k3s in Docker

CONCEPTS

Docker host your machine

Cluster network k3d-<name>

Nodes serverlb, server-N, agent-N

One Docker network per cluster

Every node is a Docker container named k3d-<cluster>-<role>-<n>. Host ports reach the cluster through the k3d-<cluster>-serverlb container, so map ports with @loadbalancer.

CLUSTERS

`k3d cluster create <name>`
Create a cluster

`k3d cluster list`
List clusters and node counts

`k3d cluster delete <name>`
Delete a cluster

`k3d cluster delete --all`
Delete every cluster

`k3d cluster stop <name>`
Stop the cluster containers

`k3d cluster start <name>`
Start a stopped cluster

`k3d cluster create <name> -s <n> -a <n>`
Set server and agent count

`k3d cluster create <name> -i <image>`
Pick the k3s version via image

PORTS AND NETWORKING

`k3d cluster create -p "8080:80@loadbalancer"`
Map host port to ingress

KUBECONFIG

`k3d kubeconfig merge <name> --kubeconfig-switch-context`
Merge and switch context

KUBECONFIG (cont.)

`k3d kubeconfig get <name>`
Print a cluster's kubeconfig

NODES

`k3d node list`
List all nodes

`k3d node create <name> -c <cluster>`
Add an agent to a cluster

`k3d node delete <node>`
Remove a node

IMAGES AND REGISTRIES

`k3d image import <image> -c <name>`
Copy a local image into nodes

`k3d registry create <name> --port <port>`
Create a local registry

`k3d cluster create --registry-create <name>`
Make a registry with the cluster

`k3d cluster create --registry-use k3d-<name>:<port>`
Use an existing registry

MOUNTS, ENV AND K3S ARGS

`k3d cluster create -v <host>:<node>@<filter>`
Mount a host path

`k3d cluster create --k3s-arg "<arg>@server:*"`
Pass a flag to k3s

CONFIG FILE

`k3d cluster create --config <file>`
Create from a config file

MAINTENANCE

`k3d version`
Show k3d and k3s versions