

SDP Team 25 Documentation

Getting started:

Installing KWOK:

[Installation Instructions](#)

1. Install with Package Manager:
On Linux/MacOS systems you can install kwok/kwokctl via [brew](#)
brew install kwok
2. Binary Releases
 - 2.1 Variables preparation
KWOK_REPO=kubernetes-sigs/kwok

KWOK_LATEST_RELEASE=
\$(curl "<https://api.github.com/repos/>
\${KWOK_REPO}/releases/latest" | jq -r '.tag_name')
 - 2.2 Install kwokctl
wget -O kwokctl -c "<https://github.com/>
\${KWOK_REPO}/releases/download/
\${KWOK_LATEST_RELEASE}/kwokctl-\${(go env GOOS)}
-\${(go env GOARCH)}"

chmod +x kwokctl

sudo mv kwokctl /usr/local/bin/kwokctl
 - 2.3 Install kwok
wget -O kwok -c "<https://github.com/>
\${KWOK_REPO}/releases/download/\${KWOK_LATEST_RELEASE}
/kwok-\${(go env GOOS)}-\${(go env GOARCH)}"

chmod +x kwok

sudo mv kwok /usr/local/bin/kwok

Shortcut Commands

Apply Resources

To apply a list of resources to a cluster from a resource file.

Short Command:

➡ *apply resource_file*

Hidden Command:

➡ *kubectl apply -f resource_file*

Create Cluster

To create a new cluster.

Short Command:

➡ *cluster create my_new_cluster*

Hidden Command:

➡ *kwokctl create cluster --name my_new_cluster*

Delete Cluster

To delete an existing cluster.

Short Command:

➡ *cluster delete my_old_cluster*

Hidden Command:

➡ *kwokctl create delete --name my_old_cluster*

Get

To retrieve information about an existing cluster.

Short Command:

➡ *get my_cluster*

Hidden Command:

➡ *kubectl get my_cluster*

View Nodes

To retrieve detailed information about nodes in existing cluster.

Short Command:

➡ *show nodes*

Hidden Command:

➡ *kubectrl describe nodes | awk '/Allocated resources:/,/ephemeral-storage/ {print}'*

```
Allocated resources:
(Total limits may be over 100 percent, i.e., overcommitted.)
Resource           Requests           Limits
-----
cpu                 1875m (46%)       2485m (62%)
memory             130M (1%)         290M (3%)
ephemeral-storage  0 (0%)            0 (0%)

Allocated resources:
(Total limits may be over 100 percent, i.e., overcommitted.)
Resource           Requests           Limits
-----
cpu                 525m (13%)        655m (16%)
memory             90M (1%)          170M (1%)
ephemeral-storage  0 (0%)            0 (0%)

Allocated resources:
(Total limits may be over 100 percent, i.e., overcommitted.)
Resource           Requests           Limits
-----
cpu                 1800m (45%)       2370m (59%)
memory             110M (1%)         280M (3%)
ephemeral-storage  0 (0%)            0 (0%)
```

View Priority

To retrieve information about priority of pods running.

Short Command:

➡ *show priority*

Hidden Command:

➡ *kubectrl get pods -n default -o custom-columns=NAME:
.metadata.name,PRIORITY:.spec.priorityClassName*

NAME	PRIORITY
notes-high-694f8fc8c-bgvms	high-priority
notes-high-694f8fc8c-kfg7r	high-priority
notes-high-694f8fc8c-nh9pd	high-priority
notes-high-694f8fc8c-pwqrd	high-priority
notes-high-694f8fc8c-vtj2n	high-priority
notes-low-6ff74ccd6-4n75p	low-priority
notes-low-6ff74ccd6-6vwwz	low-priority
notes-low-6ff74ccd6-8ww5p	low-priority
notes-low-6ff74ccd6-sdzmh	low-priority
notes-low-6ff74ccd6-wc9x8	low-priority
notes-medium-cf79ddcf5-6dwvd	medium-priority
notes-medium-cf79ddcf5-6nzx4	medium-priority
notes-medium-cf79ddcf5-gv9rf	medium-priority
notes-medium-cf79ddcf5-jlqmt	medium-priority
notes-medium-cf79ddcf5-nm25w	medium-priority
notes-medium-cf79ddcf5-wnjwn	medium-priority
notes-minimum-7d457f5957-4lc8h	minimum-priority
notes-minimum-7d457f5957-5zrk6	minimum-priority
notes-minimum-7d457f5957-982ms	minimum-priority
notes-minimum-7d457f5957-dldmj	minimum-priority
notes-minimum-7d457f5957-rnj24	minimum-priority

View Pods

To retrieve list of Pods running in existing cluster.

Short Command:

➡ *show pods*

Hidden Command:

➡ *kubectl get pods --output=custom-columns=NAMESPACE:.metadata.namespace,NAME:.metadata.name,CPU-REQUEST:.spec.containers[].resources.requests.cpu,CPU-LIMIT:.spec.containers[].resources.limits.cpu,MEMORY-REQUEST:.spec.containers[].resources.requests.memory,MEMORY-LIMIT:.spec.containers[].resources.limits.memory,AGE:.metadata.creationTimestamp*

NAMESPACE	NAME	CPU-REQUEST	CPU-LIMIT	MEMORY-REQUEST	MEMORY-LIMIT	AGE
default	notes-high-694f8fc8c-bgvms	150m	200m	30M	40M	2024-04-11T15:25:47Z
default	notes-high-694f8fc8c-kfg7r	150m	200m	30M	40M	2024-04-11T15:25:47Z
default	notes-high-694f8fc8c-nh9pd	150m	200m	30M	40M	2024-04-11T15:25:47Z
default	notes-high-694f8fc8c-pwqrd	150m	200m	30M	40M	2024-04-11T15:25:47Z
default	notes-high-694f8fc8c-vtj2n	150m	200m	30M	40M	2024-04-11T15:25:47Z
default	notes-low-6ff74ccd6-4n75p	750m	1	30M	90M	2024-04-11T15:25:50Z
default	notes-low-6ff74ccd6-6vwwz	750m	1	30M	90M	2024-04-11T15:30:05Z
default	notes-low-6ff74ccd6-8ww5p	750m	1	30M	90M	2024-04-11T15:25:50Z
default	notes-low-6ff74ccd6-sdzmh	750m	1	30M	90M	2024-04-11T15:25:50Z
default	notes-low-6ff74ccd6-wc9x8	750m	1	30M	90M	2024-04-11T15:25:50Z
default	notes-medium-cf79ddcf5-6dwvd	75m	85m	10M	30M	2024-04-11T15:28:37Z
default	notes-medium-cf79ddcf5-6nzx4	75m	85m	10M	30M	2024-04-11T15:28:37Z
default	notes-medium-cf79ddcf5-gv9rf	75m	85m	10M	30M	2024-04-11T15:28:37Z
default	notes-medium-cf79ddcf5-jlqmt	75m	85m	10M	30M	2024-04-11T15:28:37Z
default	notes-medium-cf79ddcf5-nm25w	75m	85m	10M	30M	2024-04-11T15:30:05Z
default	notes-medium-cf79ddcf5-wnjwn	75m	85m	10M	30M	2024-04-11T15:28:37Z
default	notes-minimum-7d457f5957-4lc8h	100m	200m	50M	60M	2024-04-11T15:28:41Z
default	notes-minimum-7d457f5957-5zrk6	100m	200m	50M	60M	2024-04-11T15:28:41Z
default	notes-minimum-7d457f5957-982ms	100m	200m	50M	60M	2024-04-11T15:28:41Z
default	notes-minimum-7d457f5957-dldmj	100m	200m	50M	60M	2024-04-11T15:28:41Z
default	notes-minimum-7d457f5957-rnj24	100m	200m	50M	60M	2024-04-11T15:28:41Z

View Assignments

To retrieve Node and Pod assignments

Short Command:

➡ *show assignments*

Hidden Command:

➡ *kubectrl get pod -o=custom-columns=NODE:.spec.nodeName,NAME:.metadata.name --all-namespaces*

NODE	NAME
kwok-node-2	notes-high-694f8fc8c-bgvms
kwok-node-2	notes-high-694f8fc8c-kfg7r
kwok-node-1	notes-high-694f8fc8c-nh9pd
kwok-node-1	notes-high-694f8fc8c-pwqrd
kwok-node-3	notes-high-694f8fc8c-vtj2n
kwok-node-1	notes-low-6ff74ccd6-4n75p
<none>	notes-low-6ff74ccd6-6vwwz
kwok-node-3	notes-low-6ff74ccd6-8ww5p
kwok-node-1	notes-low-6ff74ccd6-sdzmh
kwok-node-3	notes-low-6ff74ccd6-wc9x8
kwok-node-1	notes-medium-cf79ddcf5-6dwvd
kwok-node-3	notes-medium-cf79ddcf5-6nzx4
kwok-node-3	notes-medium-cf79ddcf5-gv9rf
kwok-node-2	notes-medium-cf79ddcf5-jlqmt
kwok-node-2	notes-medium-cf79ddcf5-nm25w
kwok-node-2	notes-medium-cf79ddcf5-wnjwn
<none>	notes-minimum-7d457f5957-4lc8h
<none>	notes-minimum-7d457f5957-5zrk6
<none>	notes-minimum-7d457f5957-982ms
<none>	notes-minimum-7d457f5957-dldmj
<none>	notes-minimum-7d457f5957-rnj24