

# CheatSheet: CRI-O

## CLOUD

- PDF Link: [cheatsheet-crio-A4.pdf](#), Category: Cloud
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-crio-A4>
- Related posts: Docker CheatSheet, Kubectl CheatSheet, #denny-cheatsheets

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## 1.1 cri-o Basic

Name	Summary
cri-o	Another container runtime like dockerd. Initialized from Redhat
cri-o vs dockerd Reference	CheatSheet: Docker, CheatSheet: CRI-O, CheatSheet: rkt, CheatSheet: containerd

## 1.2 cri-o Components

Name	Summary
crictl	For troubleshooting and working directly with CRI-O container engines
runc	For running container images
podman	CLI tool to manage pods and images
Buildah	For building, pushing and signing container images
Skopeo	For copying, inspecting, deleting, and signing images
Quay	Builds, analyzes, distributes your container images. Like CNCF Harbor

<https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-crio-A4/crio-arch.png>

## 1.3 Run cri-o as k8s container engine

Name	Summary
Run cri-o with minikube	<code>minikube start --network-plugin=cni --container-runtime=cri-o</code>
cri-o conf file	<code>/etc/crio/crio.conf</code>
Configure cri-o image registry	<code>registries = ['docker.io']</code>
Restart cri-o	<code>minikube ssh, then systemctl restart crio</code>
Check status	<code>systemctl status</code>
Reference	Link: Using the CRI-O Container Engine

## 1.4 podman

Name	Summary
podman image registry file	<code>/etc/containers/registries.conf</code>
pull container	<code>podman pull nginx:alpine</code>
List all images	<code>podman images</code>
List all containers	<code>podman ps</code>

## 1.5 podman online usage

```
$ sudo podman --help
```

```
WARN[0000] unable to find /etc/containers/registries.conf. some podman (image shortnames) commands may be limited
```

```
NAME:
  podman - manage pods and images
```

```
USAGE:
```

```
podman [global options] command [command options] [arguments...]
```

```
VERSION:
```

```
0.4.1
```

```
COMMANDS:
```

attach	Attach to a running container
commit	Create new image based on the changed container
build	Build an image using instructions in a Dockerfile
create	create but do not start a container
diff	Inspect changes on container's file systems
exec	Run a process in a running container
export	Export container's filesystem contents as a tar archive
history	Show history of a specified image
images	list images in local storage
import	Import a tarball to create a filesystem image
info	display system information
inspect	Displays the configuration of a container or image
kill	Kill one or more running containers with a specific signal
load	load an image from docker archive
login	login to a container registry
logout	logout of a container registry
logs	Fetch the logs of a container
mount	Mount a working container's root filesystem
pause	Pauses all the processes in one or more containers
ps	List containers
port	List port mappings or a specific mapping for the container
pull	pull an image from a registry
push	push an image to a specified destination
restart	Restart one or more containers
rm	podman rm will remove one or more containers from the host. The container name or ID c This does not remove images. Running containers will not be removed without
rmi	removes one or more images from local storage
run	run a command in a new container
save	Save image to an archive
search	search registry for image
start	Start one or more containers
stats	Display percentage of CPU, memory, network I/O, block I/O and PIDs for one or more cont
stop	Stop one or more containers
tag	Add an additional name to a local image
top	Display the running processes of a container
umount, unmount	Unmount a working container's root filesystem
unpause	Unpause the processes in one or more containers
version	Display the PODMAN Version Information
wait	Block on one or more containers
help, h	Shows a list of commands or help for one command

**GLOBAL OPTIONS:**

--cni-config-dir value	path of the configuration directory for CNI networks
--config value, -c value	path of a config file detailing container server configuration options
--common value	path of the common binary
--cpu-profile value	path for the cpu profiling results
--log-level value	log messages above specified level: debug, info, warn, error (default),
--root value	path to the root directory in which data, including images, is stored
--runroot value	path to the 'run directory' where all state information is stored
--runtime value	path to the OCI-compatible binary used to run containers, default is /us
--storage-driver value, -s value	select which storage driver is used to manage storage of images and cont
--storage-opt value	used to pass an option to the storage driver
--help, -h	show help
--version, -v	print the version

**1.6 More Resources**

<https://github.com/containers>  
<https://cri-o.io/>

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