

# Running Containers Locally

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# Overview



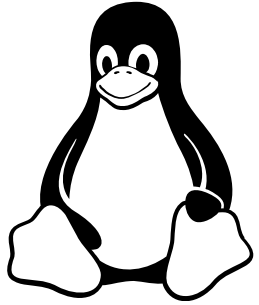
## Installing Docker

- Docker for Windows

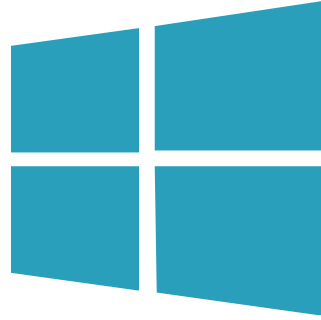
## Using Docker

- docker run
- docker ps
- docker logs
- docker exec
- docker images
- docker volumes
- docker rm

# Installing Docker in Production



Alpine Linux  
Ubuntu Core  
Container Linux



Windows Server 2016  
Windows Server 2019

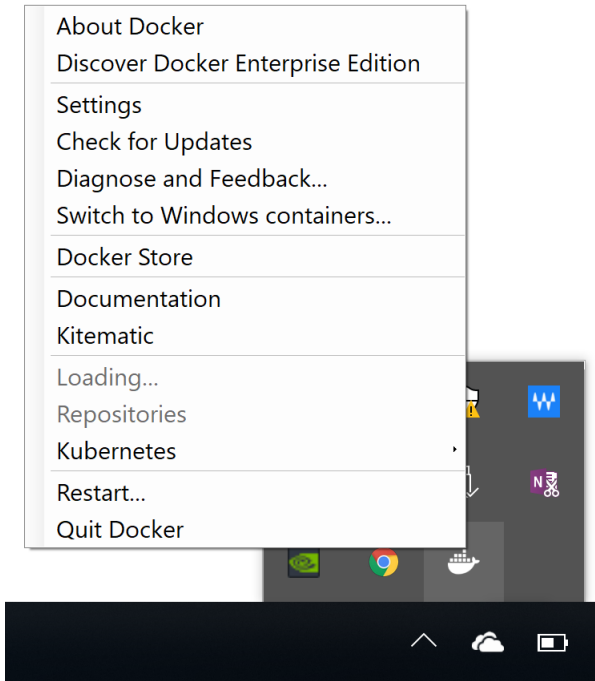



## Installing Docker Locally



<https://docs.docker.com/install/>





 Settings

General

Shared Drives

Advanced

Network

Proxies


Daemon

Kubernetes

Reset

# General

Adjust how Docker for Windows behaves according to your preferences.



☒ Start Docker when you log in

☒ Automatically check for updates

☒ Send usage statistics

Help us improve Docker for Windows by sending anonymous app lifecycle information (e.g., starts, stops, resets), Windows version and language setting.

Note: When running, Docker for Windows will always send its version.

☐ Expose daemon on tcp://localhost:2375 without TLS

Exposing daemon on TCP without TLS helps legacy clients connect to the daemon. It also makes yourself vulnerable to remote code execution attacks. Use with caution.

Docker is running

You are running a stable version. You can switch to [another version](#).

About Docker

Discover Docker Enterprise Edition

Settings

Check for Updates

Diagnose and Feedback...

Switch to Windows containers...

Docker Store

Documentation

Kitematic

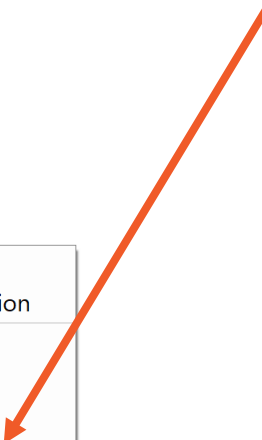
Loading...



Repositories


Kubernetes

Restart...

Quit Docker







Settings

General

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Docker is running

# Daemon

Configure the Docker daemon by typing a json docker daemon [configuration file](#).

☐ Basic

☒ Experimental [features](#)

Insecure registries:


eg: my-registry.example:5000 or 127.0.0.0/8

Registry mirrors:

eg: https://my-registry.example:5000

Docker will restart when applying these settings.

Apply



--platform=linux



# docker run

detached

publish port <host>:<container>

```
docker run -d -p 25565:25565 `
--name myserver `
itzg/minecraft-server:raspberrypi
```

container name

image name  
(repository)

image tag



# Demo



## Running Redis with Docker





# Demo



## Running commands inside containers

- Connect on localhost port 6379
- Run the Redis CLI in a container
- docker exec



# Demo



## Storing container data

- Containers are disposable
- Keep data in Docker volumes
- Mount a volume



# Summary



## **docker run**

- -d (run detached)
- -it (interactive terminal)
- -p (publish a port)
- -v (mount a volume)
- --name (name a container)
- --link (communicate between containers)
- --rm (auto-delete when container stops)
- -e NAME=value (environment variables)

# Summary



## **docker exec**

- Run a command inside a container

## **docker ps**

- See what containers are running

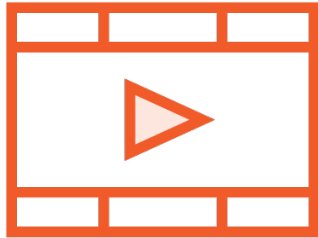
## **docker logs**

- View log output from a container

## **Clean up**

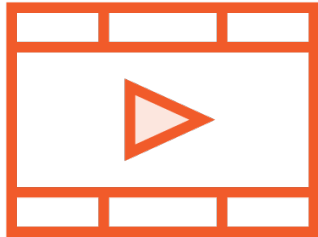
- `docker rm -f container-name`
- `docker image rm image-name`
- `docker volume rm volume-name`

# Learning More



## Getting Started with Docker

Nigel Poulton



## Getting Started with Docker on Windows

Wes Higbee



Up next:  
Creating Docker Images

