Docker

Docker Ubuntu docker Ubuntu Mac, windows

- Ubuntu Docker
- CentOS Docker
- Windows Docker
- MacOS Docker
- docker

Ubuntu Docker

Docker Engine-Community Ubuntu

- Xenial 16.04 (LTS)
- Bionic 18.04 (LTS)
- Cosmic 18.10
- Disco 19.04
- ……

Docker Engine - Community x86_64 amd64 armhf arm64 s390x IBM Z ppc64le IBM Powe

Docker docker docker.io docker-engine

```
apt remove docker docker-engine docker.io containerd runc
```

Docker Engine-Community docker-ce

Docker Engine-Community

Docker

Docker Engine-Community Docker Docker

apt

```
curl -fsSL http://mirrors.aliyun.com/docker-ce/linux/ubuntu/gpg | sudo apt-key add -
sudo add-apt-repository "deb [arch=amd64] http://mirrors.aliyun.com/docker-ce/linux/ubuntu
$(lsb_release -cs) stable"

curl -fsSL http://mirrors.huaweicloud.com/docker-ce/linux/ubuntu/gpg | sudo apt-key add -
sudo add-apt-repository "deb [arch=amd64] http://mirrors.huaweicloud.com/docker-
ce/linux/ubuntu $(lsb_release -cs) stable"

apt update
```

Docker GPG

```
curl -fsSL http://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

```
||

curl -fsSL http://mirrors.huaweicloud.com/docker-ce/linux/ubuntu/gpg | sudo apt-key add -

||

curl -fsSL http://mirrors.aliyun.com/docker-ce/linux/ubuntu/gpg | sudo apt-key add -
```

Docker Engine-Community

apt

```
sudo apt update
```

Docker Engine-Community containerd

```
sudo apt install docker-ce docker-ce-cli containerd.io -y
```

Docker :

```
docker run hello-world

Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
1b930d010525: Pull
complete
Digest: sha256:c3b4ada4687bbaa170745b3e4dd8ac3f194ca95b2d0518b417fb47e5879d9b5f
Status: Downloaded newer image for hello-world:latest


Hello from Docker!
This message shows that your installation appears to be working correctly.


To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
```

```
    to your terminal.


To try something more ambitious, you can run an Ubuntu container with:
docker run -it ubuntu bash


Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/


For more examples and ideas, visit:
 https://docs.docker.com/get-started/
```

Shell

Docker get.docker.com test.docker.com Docker Engine-Community

- root sudo
- Linux Docker
- Docker edge
- Docker

get.docker.com Linux Docker Engine-Community test.docker.com

```
curl -fsSL https://get.docker.com -o get-docker.sh
sh get-docker.sh
```

Docker root docker

```
usermod -aG docker your-user


usermod -aG docker develop
```

```
sudo mkdir -p /etc/docker
sudo tee /etc/docker/daemon.json <<-'EOF'
{
  "registry-mirrors": ["https://xviwkyb8.mirror.aliyuncs.com"]
}
```

```
EOF
sudo systemctl daemon-reload
sudo systemctl restart docker
```

CentOS Docker

Docker 64 CentOS

- CentOS 7
- CentOS 8
- ... centos-extras

overlay2

Docker docker docker-engine

```
yum remove docker \
docker-client \
docker-client-latest \
docker-common \
docker-latest \
docker-latest-logrotate \
docker-logrotate \
docker-engine
```

Docker Engine-Community

Docker

Docker Engine-Community Docker Docker

yum-utils yum-config-manager device mapper device-mapper-persistent-da

```
yum install -y yum-utils \
device-mapper-persistent-data \
lvm2
```

```
yum-config-manager \
--add-repo \
https://download.docker.com/linux/centos/docker-ce.repo
http://mirrors.huaweicloud.com/docker-ce/linux/centos/docker-ce.repo

yum makecache fast
```

Docker Engine-Community

Docker Engine-Community containerd

```
yum install docker-ce docker-ce-cli containerd.io
```

GPG

> “ Docker
>
> Docker yum install yum update

Docker docker

Docker Engine-Community

1

```
yum list docker-ce --showduplicates | sort -r

docker-ce.x86_64  3:18.09.1-3.el7                     docker-ce-stable
docker-ce.x86_64  3:18.09.0-3.el7                     docker-ce-stable
docker-ce.x86_64  18.06.1.ce-3.el7                    docker-ce-stable
docker-ce.x86_64  18.06.0.ce-3.el7                    docker-ce-stable
```

2 docker-ce : - docker-ce-

```
yum install docker-ce-<VERSION_STRING> docker-ce-cli-<VERSION_STRING> containerd.io
```

Docker

```
systemctl start docker
systemctl enable docker
```

hello-world Docker Engine-Community

```
docker run hello-world
```

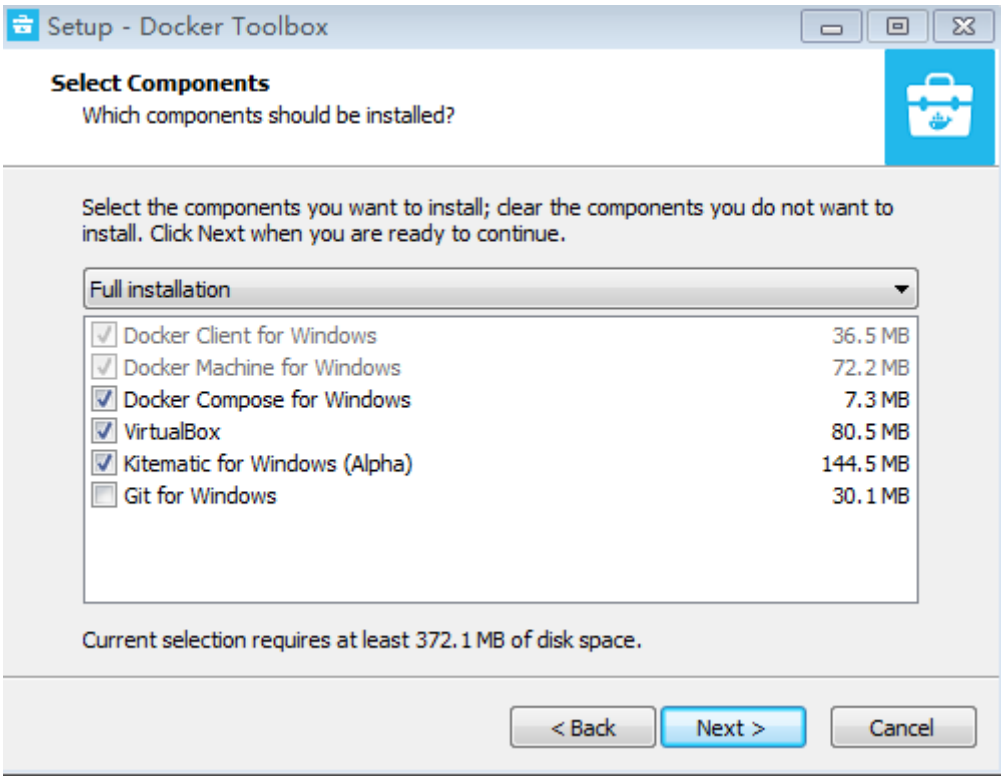
Docker root docker

```
usermod -aG docker your-user
```

Windows Docker

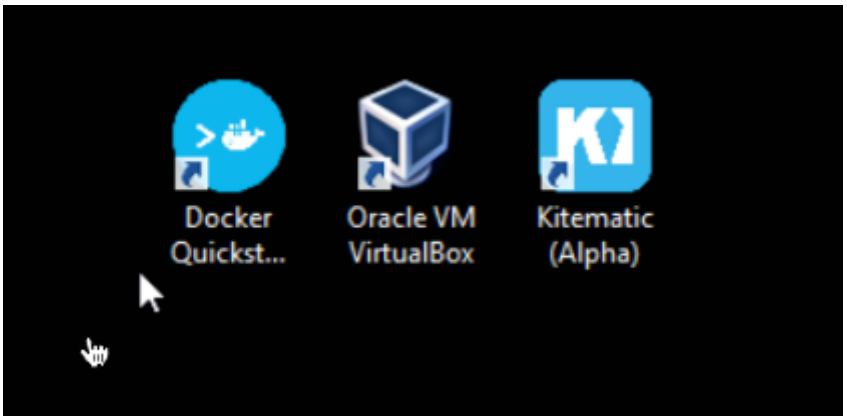
win7 win8

win7 win8 docker toolbox windows/docker-toolbox



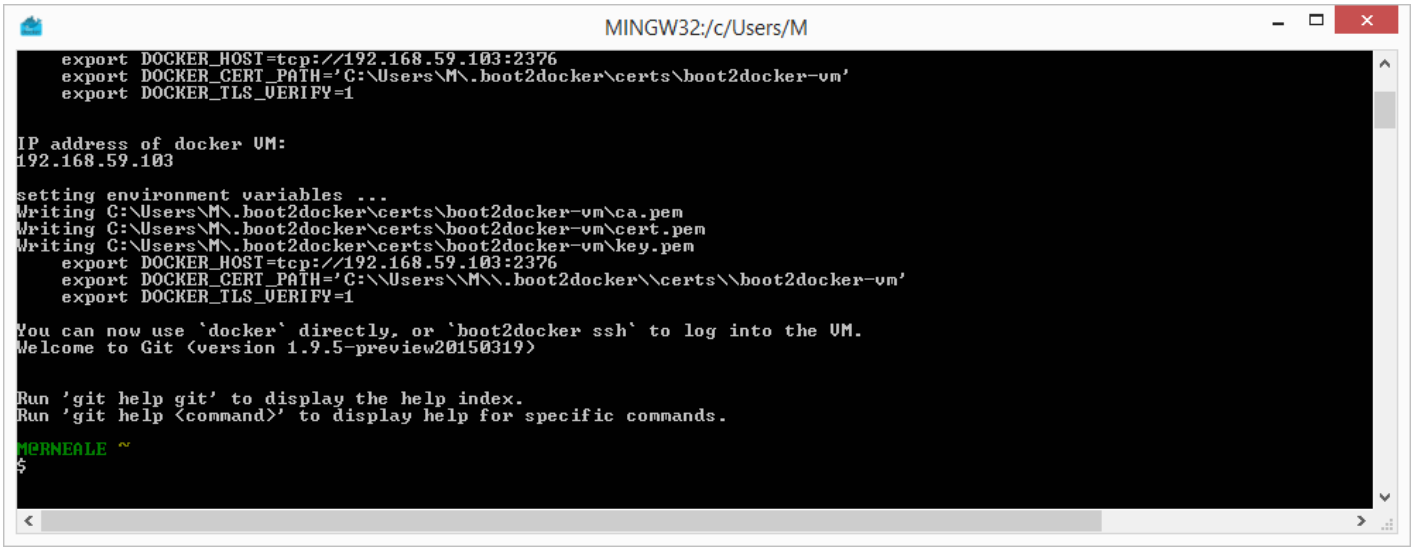
docker toolbox

- Docker CLI - docker
- Docker Machine - Windows docker
- Docker Compose - docker-compose
- Kitematic - Docker GUI
- Docker QuickStart shell - Docker
- Oracle VM Virtualbox -



Docker QuickStart Docker Toolbox

User Account Control VirtualBox Yes



$

```
$ docker run hello-world
 Unable to find image 'hello-world:latest' locally
 Pulling repository hello-world
 91c95931e552: Download complete
 a8219747be10: Download complete
 Status: Downloaded newer image for hello-world:latest
 Hello from Docker.
 This message shows that your installation appears to be working correctly.

 To generate this message, Docker took the following steps:
  1. The Docker Engine CLI client contacted the Docker Engine daemon.
  2. The Docker Engine daemon pulled the "hello-world" image from the Docker Hub.
     (Assuming it was not already locally available.)
```

```
  3. The Docker Engine daemon created a new container from that image which runs the
     executable that produces the output you are currently reading.
  4. The Docker Engine daemon streamed that output to the Docker Engine CLI client, which
sent it
     to your terminal.

 To try something more ambitious, you can run an Ubuntu container with:
  $ docker run -it ubuntu bash

 For more examples and ideas, visit:
  https://docs.docker.com/userguide/
```

Win10

Docker Win10 Hyper-V

Hyper-V

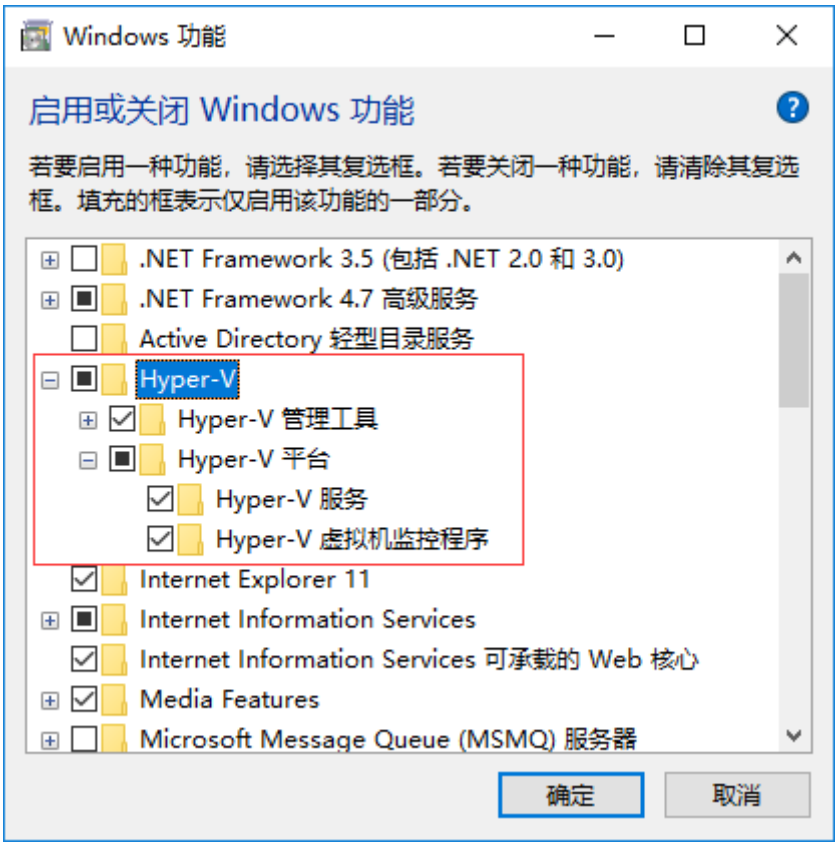
相关设置

程序和功能

- Windows

启用或关闭 Windows 功能

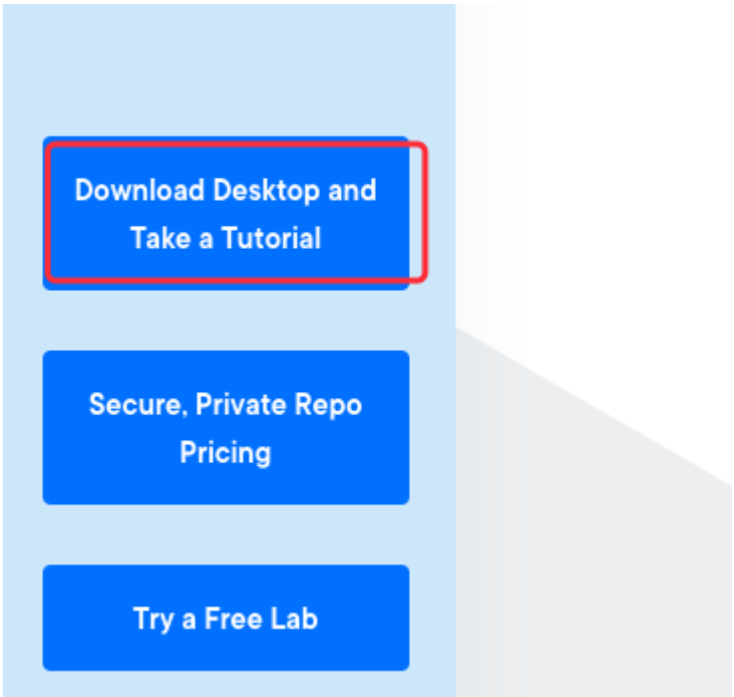
- Hyper-V

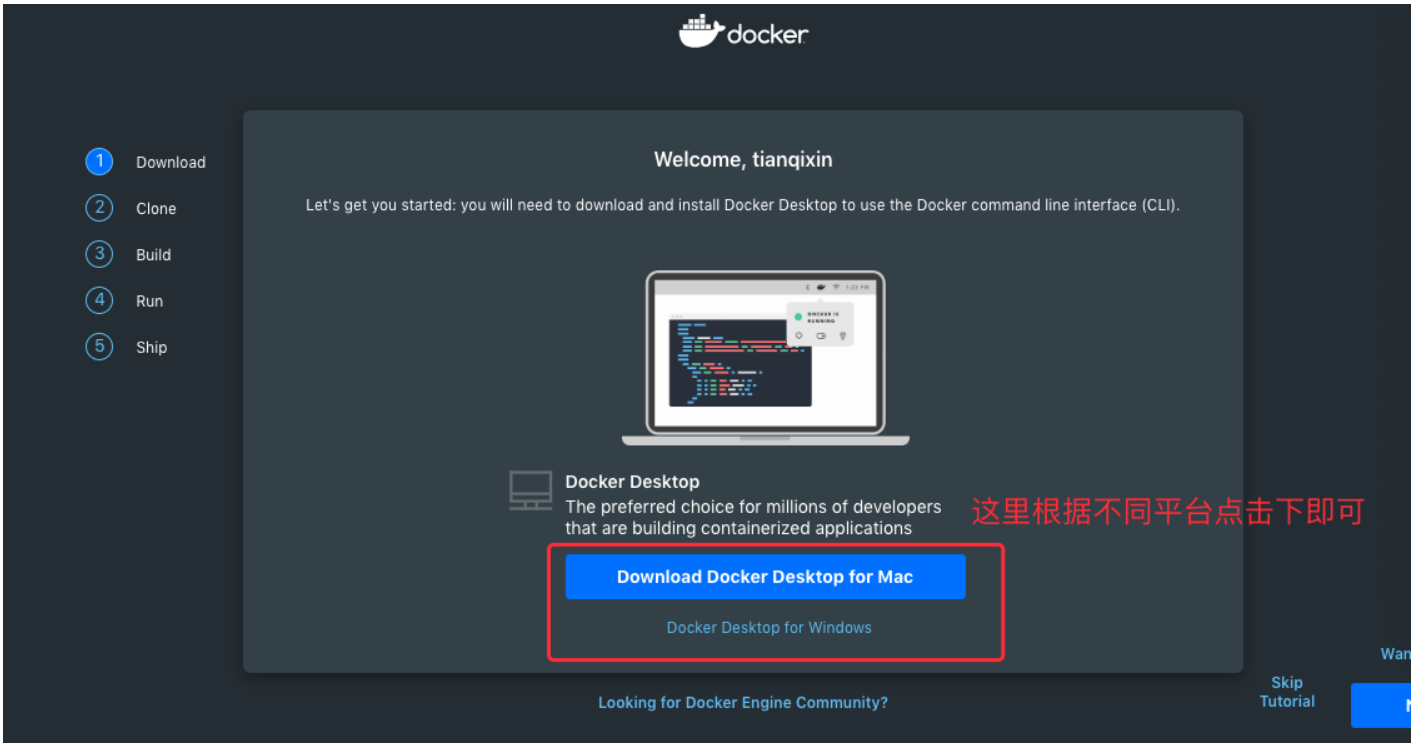


1 Toolbox

Toolbox get-docker

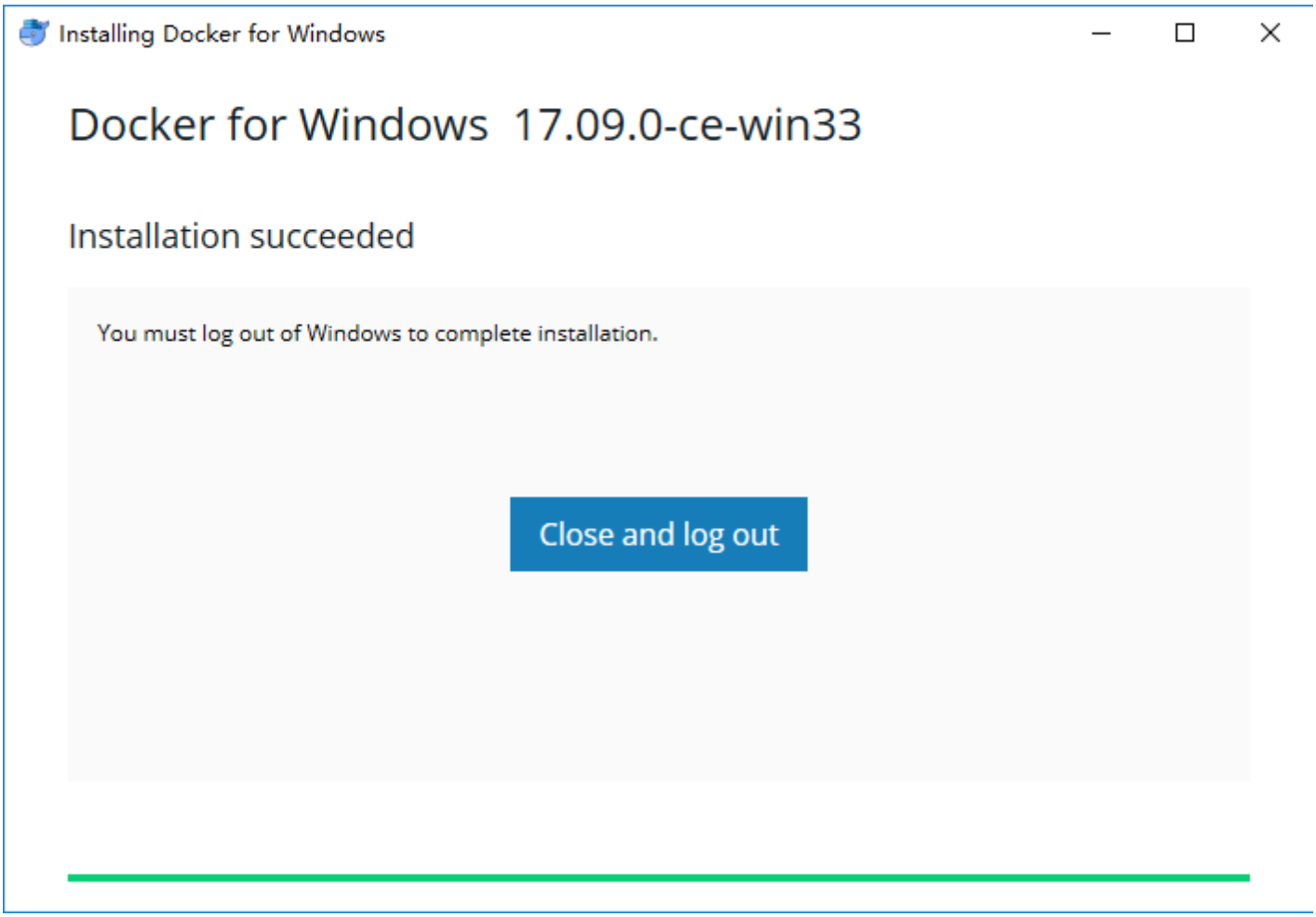
Download Desktop and Take a Tutorial Windows



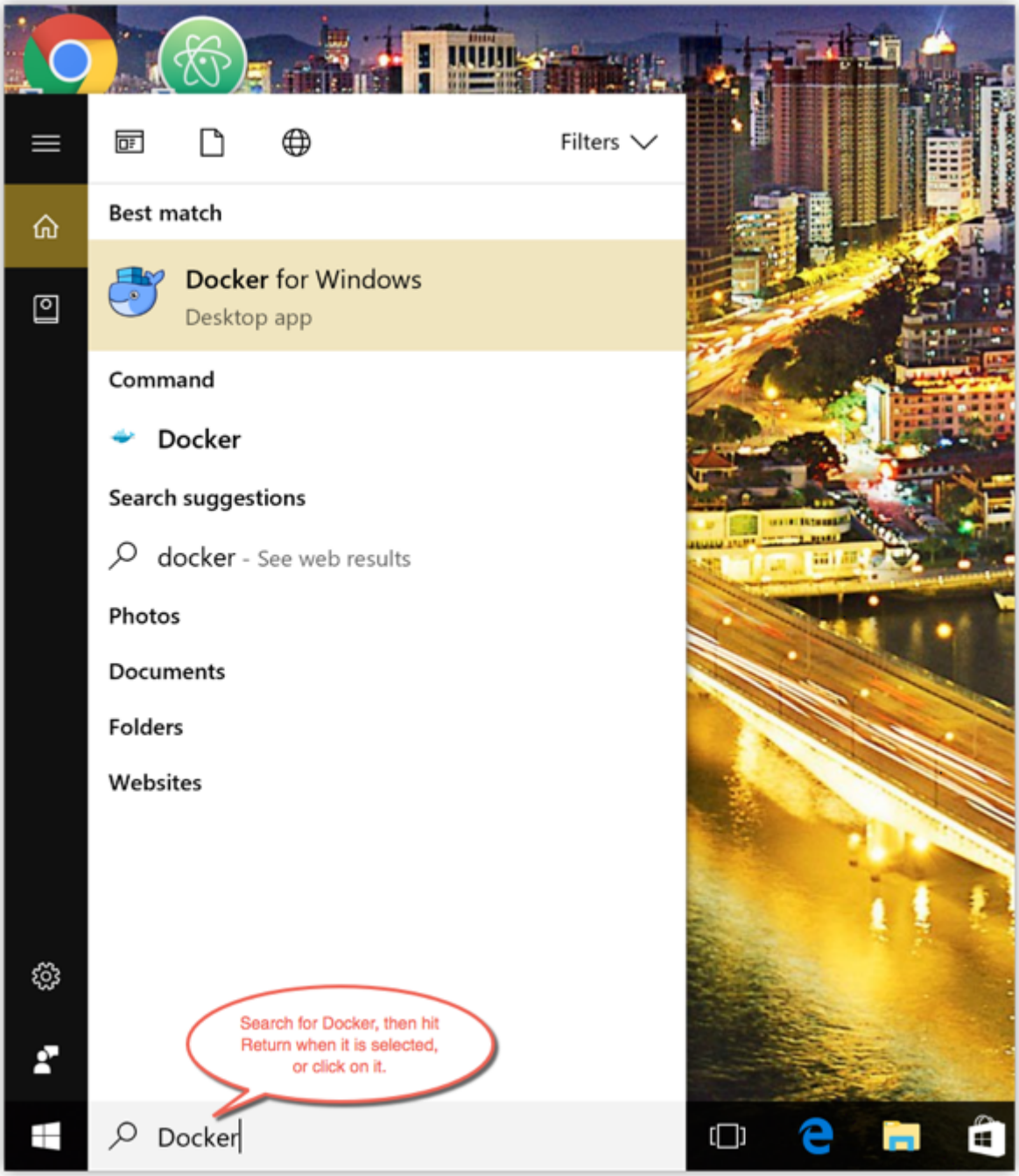


2

- Docker for Windows Installer Next Finish

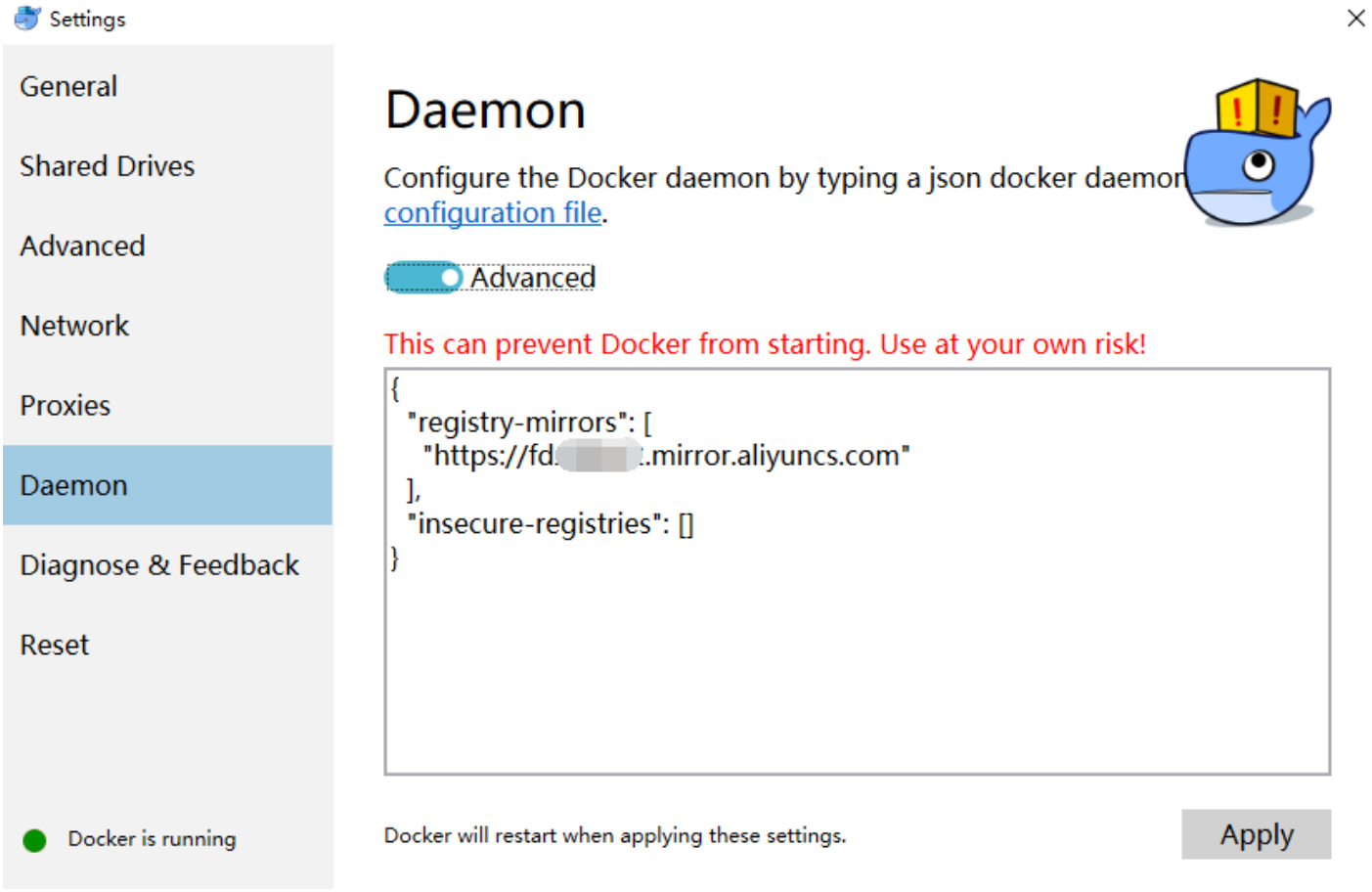


- D r Docker
- docker version docker run hello-world
- Windows Docker



Windows 10

Windows 10 Docker Settings registry.docker.io Daemon Apply Registry Docker


Settings
General
Shared Drives
Advanced
Network
Proxies
Daemon
Diagnose & Feedback
Reset
Docker is running
Daemon
Configure the Docker daemon by typing a json docker daemon
configuration file.
Advanced
This can prevent Docker from starting. Use at your own risk!
{
"registry-mirrors": [
"https://fd .mirror.aliyuncs.com"
],
"insecure-registries": []
}
Docker will restart when applying these settings.
Apply

MacOS Docker

Homebrew

macOS Homebrew Docker

Homebrew Cask Docker for Mac Homebrew Cask

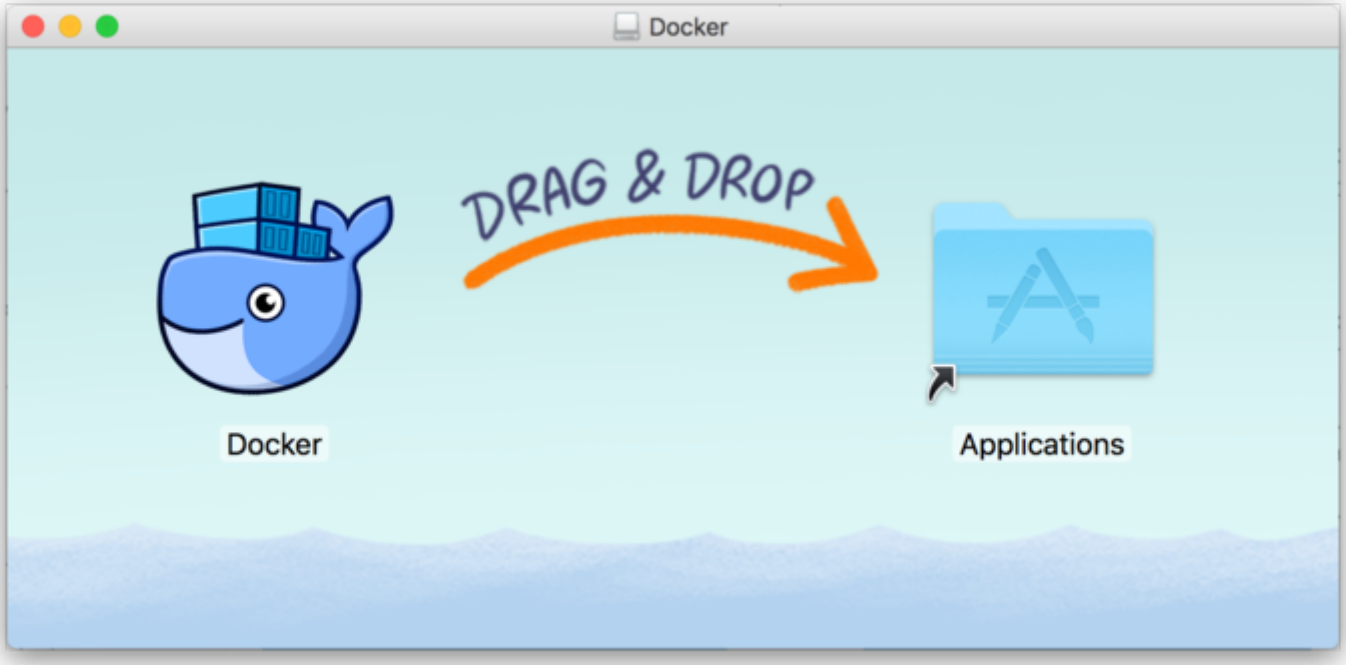
```
$ brew cask install docker

==> Creating Caskroom at /usr/local/Caskroom
==> We'll set permissions properly so we won't need sudo in the future
Password:          #    macOS
==> Satisfying dependencies
==> Downloading https://download.docker.com/mac/stable/21090/Docker.dmg
######################################################################## 100.0%
==> Verifying checksum for Cask docker
==> Installing Cask docker
==> Moving App 'Docker.app' to '/Applications/Docker.app'.
&#x1f37a;  docker was successfully installed!
```

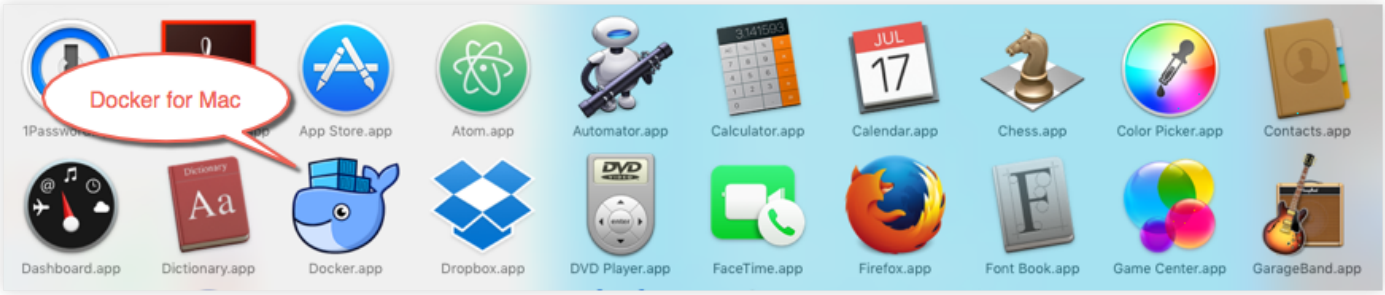
Docker app Next macOS Docker

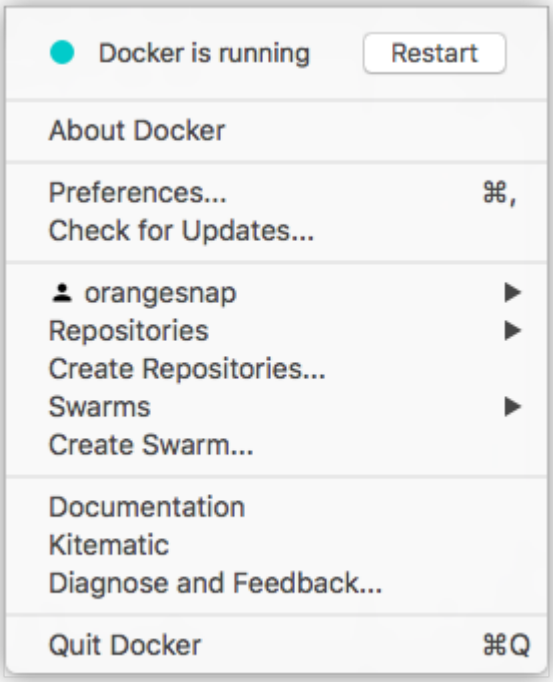
Stable Edge Docker for Mac

- macOS .dmg Application

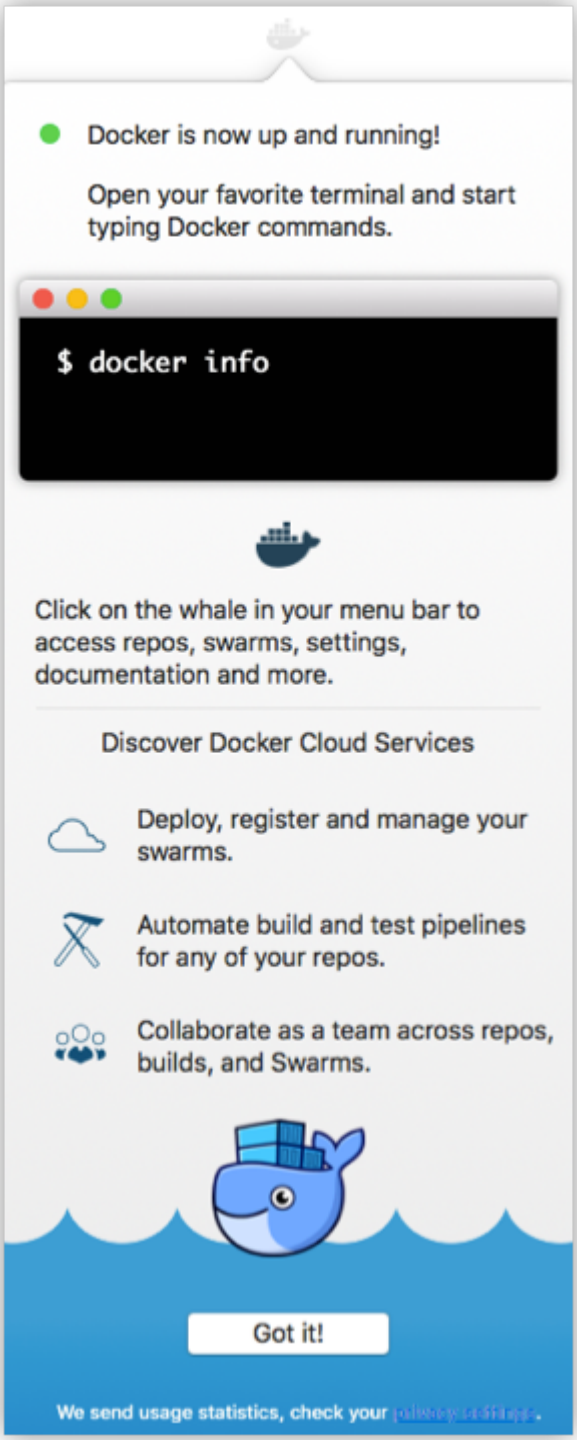


- Docker macOS




Docker is running
Restart
About Docker
Preferences...
⌘,
Check for Updates...
orangesnap
Repositories
Create Repositories...
Swarms
Create Swarm...
Documentation
Kitematic
Diagnose and Feedback...
Quit Docker
⌘Q

- "Got it!"

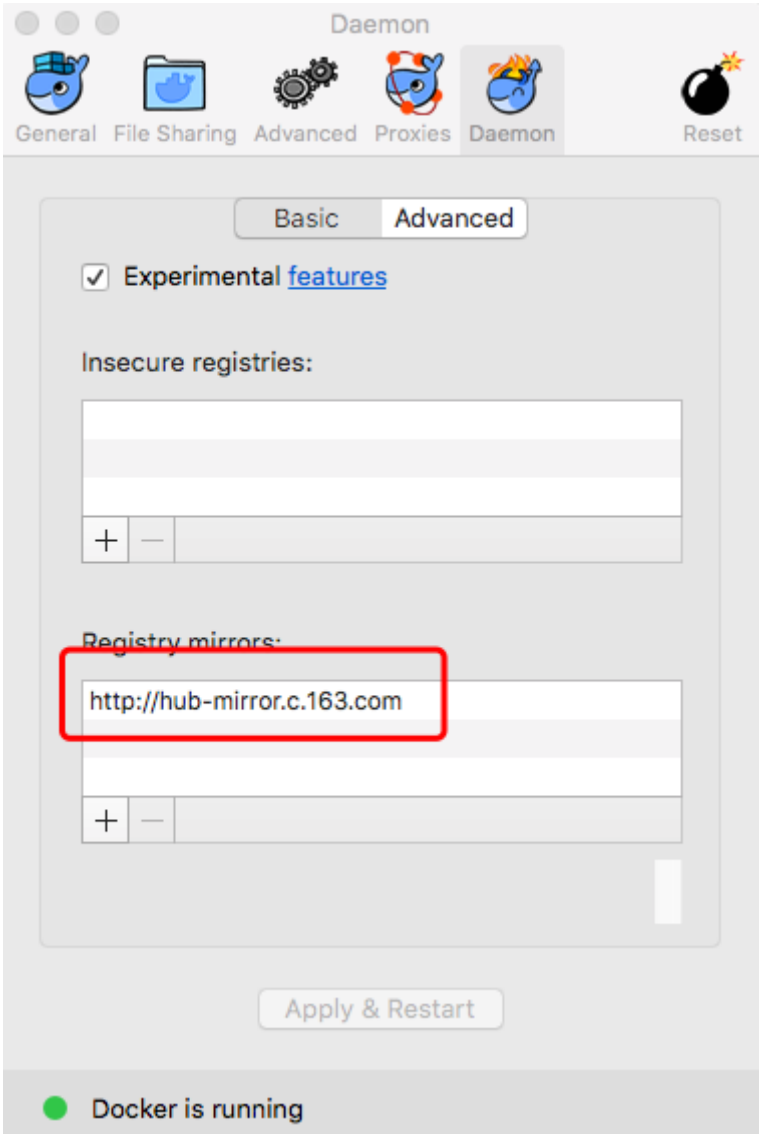


- Docker

```
$ docker --version
Docker version 17.09.1-ce, build 19e2cf6
```

hub-mirror.c.163

Docker for mac `Perferences...` -> `Daemon` -> `Registry mirrors` Apply



- docker info

```
$ docker info
...
Registry Mirrors:
 http://hub-mirror.c.163.com
Live Restore Enabled: false
```

docker

docker

Docker Go Apache2.0

Docker Linux

iPhone app ,

> Docker 17.03 CE Community Edition: EE Enterprise Edition:

Docker

- Web
- OpenShift Cloud Foundry PaaS

Docker

- 1 Docker Linux Docker
- 2 Docker Docker Docker Docker
- 3 Docker Docker

Docker

Docker - (C/S) API Docker

Docker Docker

Docker	

Docker	
Docker (Images)	Docker Docker
Docker (Container)	

Docker	
Docker (Client)	Docker Docker API (https://docs.docker.com/reference/api/docker_remote_api) Docker
Docker (Host)	Docker
Docker (Registry)	Docker Docker Hub(https://hub.docker.com)
Docker Machine	Docker Machine Docker Doc Ocean Microsoft Azure

Docker

> Ubuntu Docker

> CentOS Docker

> Windows Docker

> MacOS Docker

Docker

Docker

Docker

> docker http://www.docker.com

> Docker Windows https://docs.docker.com/docker-for-windows/
>
> Docker CE( ) Ubuntu https://docs.docker.com/install/linux/docker-ce/ubuntu/
>
> Docker mac https://docs.docker.com/docker-for-mac/
>
> Docker https://docs.docker.com/config/daemon/
>
> Docker http://blog.docker.com/
>
> Docker Hub: https://hub.docker.com/
>
> Docker https://www.docker.com/open-source

Docker

> “ https://help.aliyun.com/document_detail/60750.html
>
> http://hub-mirror.c.163.com
>
> https://registry.docker-cn.com
>
> ustc https://docker.mirrors.ustc.edu.cn
>
> daocloud https://www.daocloud.io/mirror#accelerator-doc

```
https://cr.console.aliyun.com/
```

```
docker login --username=itqmdx@qq.com registry.cn-hangzhou.aliyuncs.com
```

1( )

```
registry.cn-hangzhou.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-vpc.cn-hangzhou.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-internal.cn-hangzhou.aliyuncs.com/wzhz/[image:[version]]
```

1( )

```
registry.cn-qingdao.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-vpc.cn-qingdao.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-internal.cn-qingdao.aliyuncs.com/wzhz/[image:[version]]
```

1( )

```
registry.cn-shenzhen.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-vpc.cn-shenzhen.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-internal.cn-shenzhen.aliyuncs.com/wzhz/[image:[version]]
```

( )

```
registry.cn-hongkong.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-vpc.cn-hongkong.aliyuncs.com/wzhz/[image:[version]]
```

```
registry-internal.cn-hongkong.aliyuncs.com/wzhz/[image:[version]]
```

Docker

```
https://wzhz.mirror.aliyuncs.com
```

1. Docker

`1.10.0` Do`docker-ce`

2.

Docke`1.10.0`

da`/etc/docker/daemon.json`

```
vim docker-aliyun-daemon
```

```
#!/bin/bash

sudo mkdir -p /etc/docker
sudo tee /etc/docker/daemon.json <<-'EOF'
{
  "registry-mirrors": ["https://wzhz.mirror.aliyuncs.com"]
}
EOF
sudo systemctl daemon-reload
sudo systemctl restart docker
```

```
sudo chmod 755 docker-aliyun-daemon

./docker-aliyun-daemon
```

volume

```
#      volume
$ docker volume ls -qf dangling=true
#      volume
$ docker volume rm $(docker volume ls -qf dangling=true)
#
$ docker system prune
```