



➤ Plus légers

➤ Plus rapides

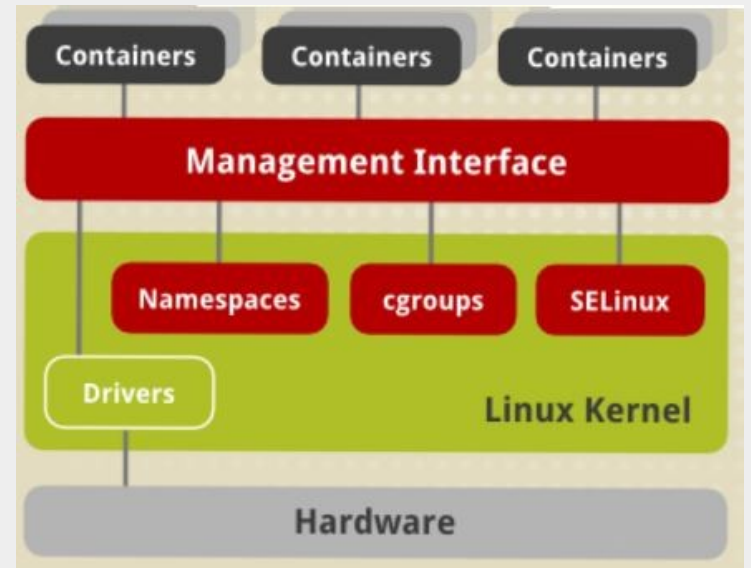


➤ Isolation

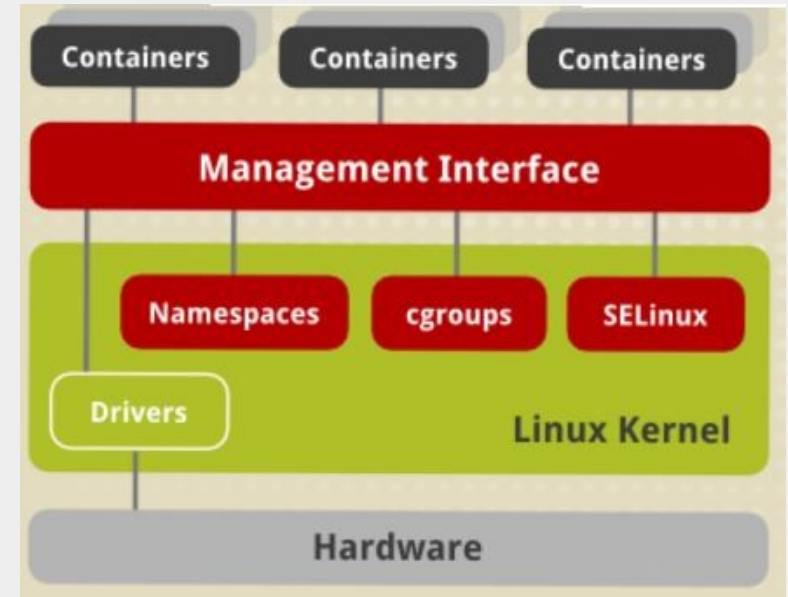
➤ Plus dynamiques

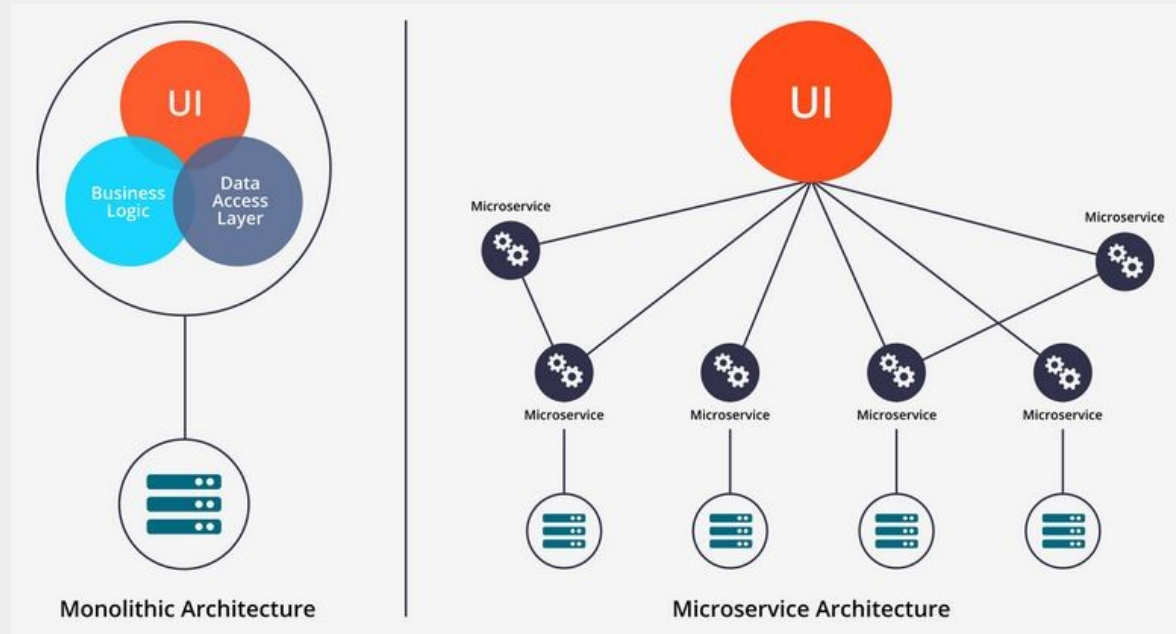


l'isolation



ressources





Couplage faible

stabilité
complète

MTRS

d'orchestrateurs

services
S
cloud
réseau

APIs



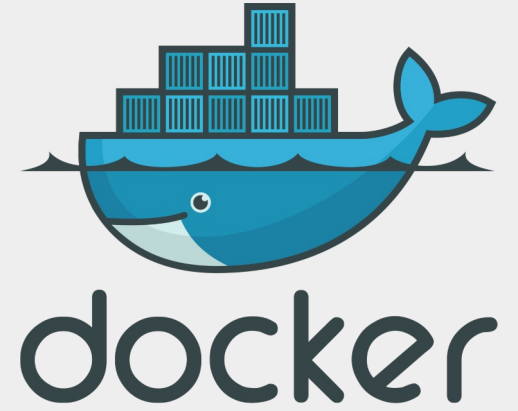
> Scaling horizontal

> stockage et au calcul distribués

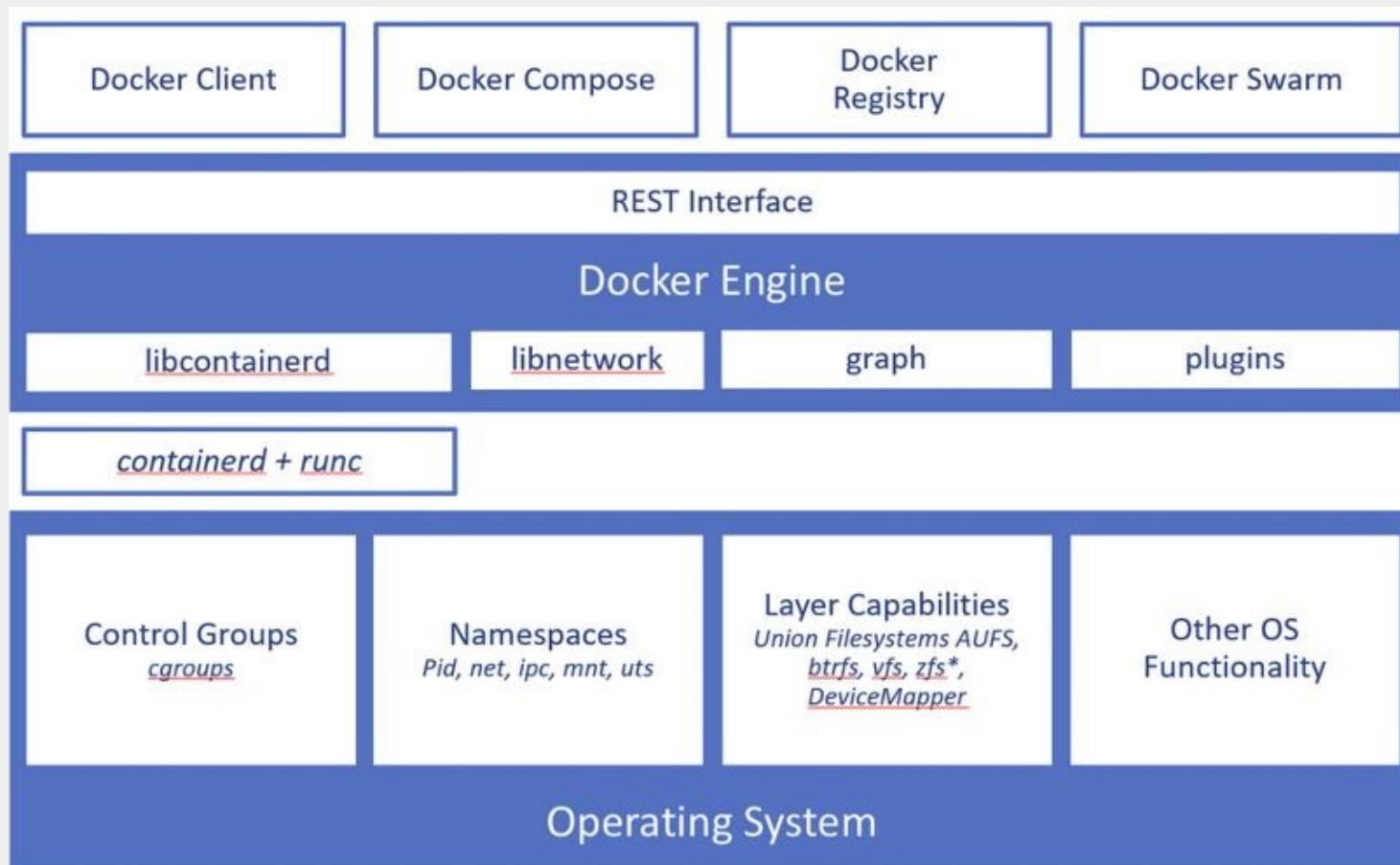




images







build des images

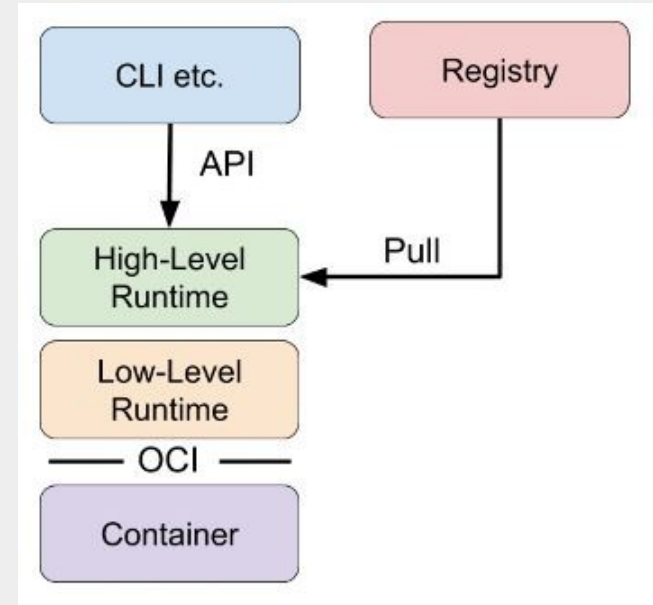
registre

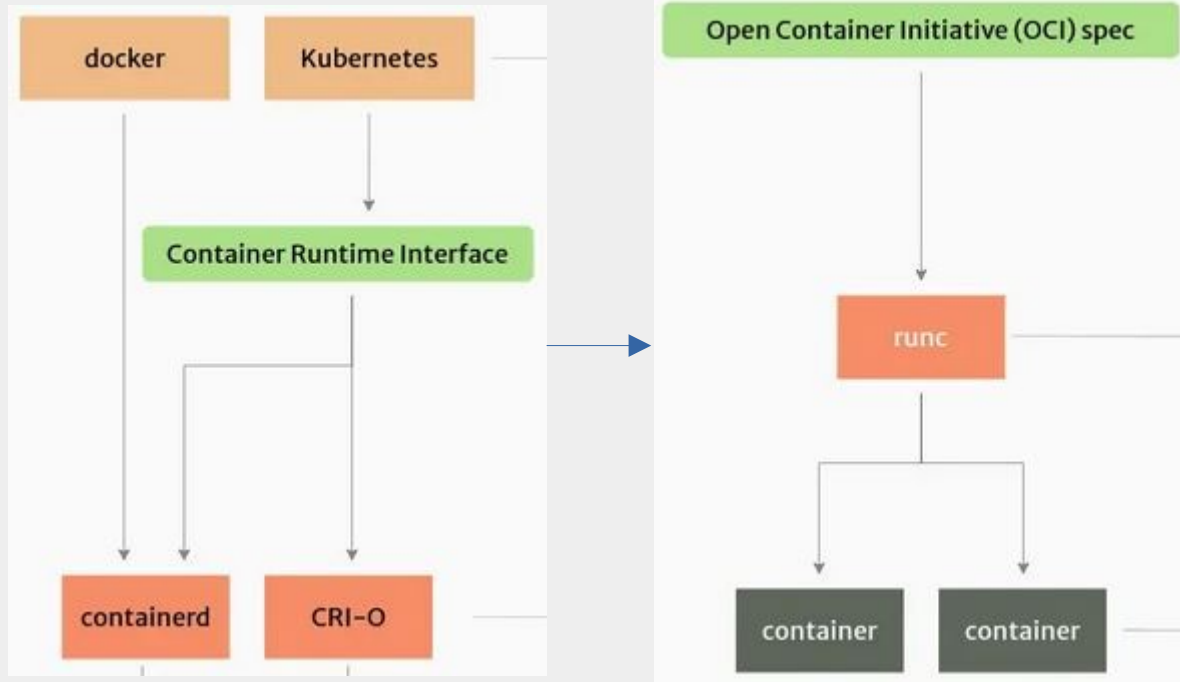
stoc#age

réseau

API

namespaces





> image

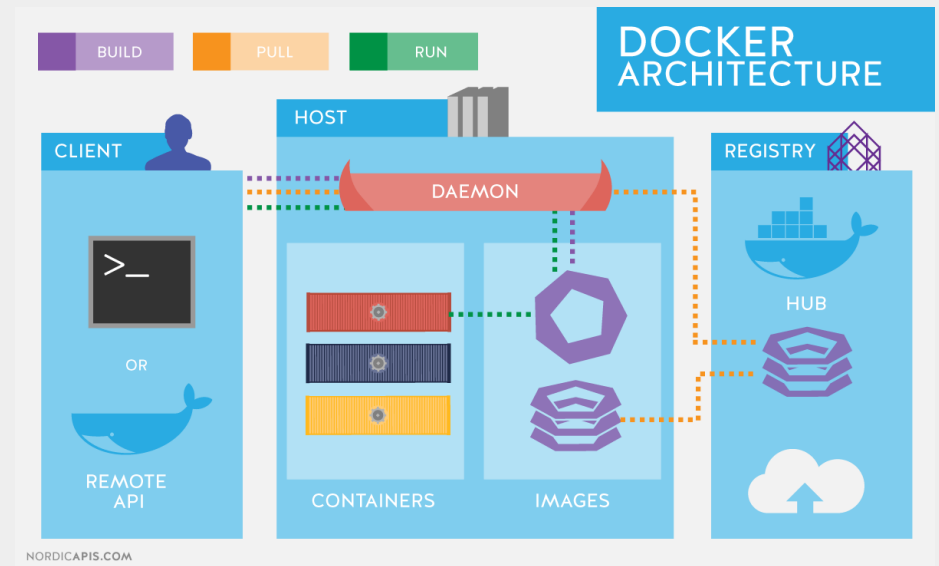
> tag

> docker pull \$image%&\$tag%

> docker search \$image%

> #ey 'value

> () o template*& ++ , - ame ..(

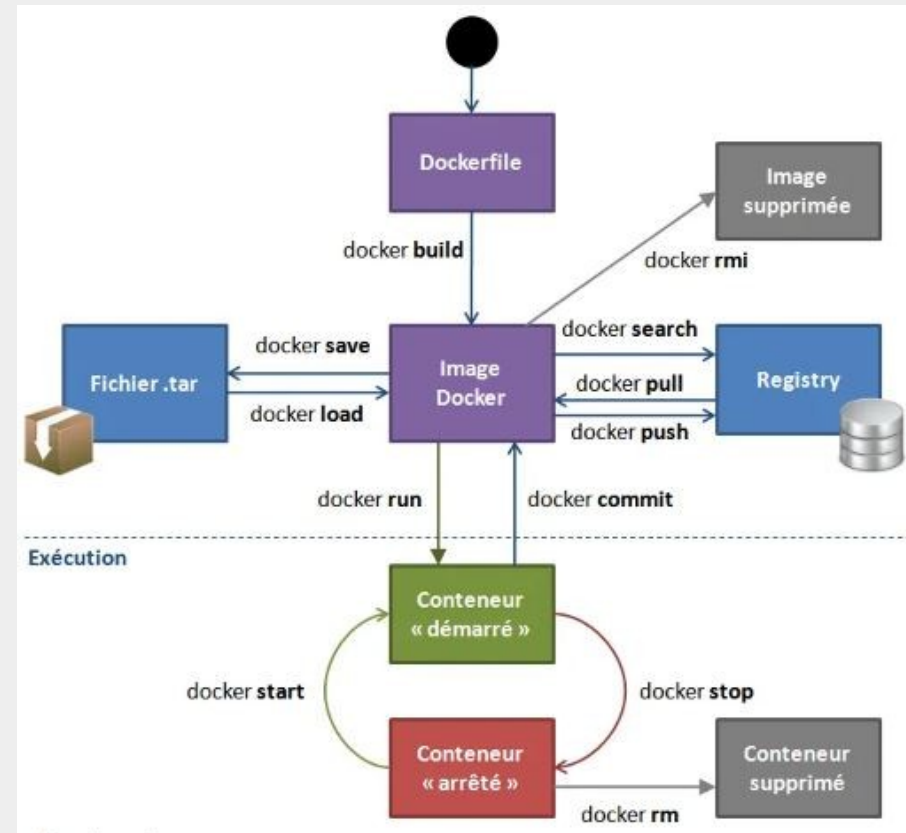


> doc#er image ls doc#er images

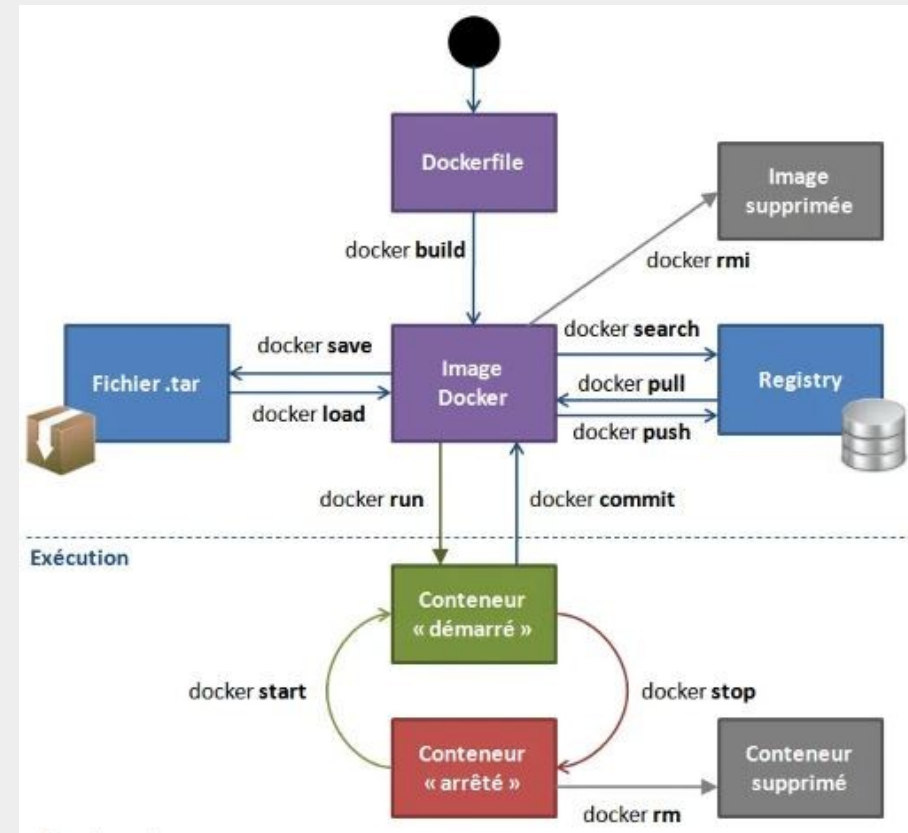
> doc#er image rm doc#er rmi

> doc#er image prune

> doc#er image prune /a



- > `docker run $img&tag% 1cmd2*`
- > `*& doc#er create $img&tag%`
- > `start 3 stop 3 restart`
- > `e ec 1cmd2`
- / si le conteneur est démarré
- > `doc#er rm`
- > `doc#er container prune`



doc#er run

namespaces et des cgroups
dans l'image sous 4acente

isolé

doc#er 5re6start

doc#er e ec \$ctn% \$cmd%

conteneur 7*one s!ot*8

ép!ém9re

un conteneur 7*permanent*8

7*daemon*8: un serveur



doc#er ps

doc#er ps /a

doc#er ps /f #ey 'value

doc#er inspect

() o template*& ++ , - ame ..(



```
doc#er inspect //format (++,ld.. ++,State,Status..(
```

```
33 //format (++4son ,State..(
```

```
33 //format (++4oin ,State ; ; ..(*
```

```
5ec!o (l< -AM= STAT>S(? doc#er inspect @5doc#er  
ps /q6 //format ;++printf (A,BCs( ,ld.. ++, -ame..  
++upper ,State,Status..;6 D column /t /s ; ;
```



- > //name
- > //restart
- >
- > //rm
- > /e FAR 'value
- > //env/file \$pat !%

alEays unless/stopped

stdout



> /i *stdin*

> /t pseudo/tty

> /it Mode interactif

Ctrl G P G H

e it

doc#er attac !







//ip \$ip laddress%

//lin# \$l< D -ame D -ame*& Alias %



réseau créé par l'utilisateur

```
doc#er run J //lin# ctn&alias
```



> doc#er netEor#

> doc#er netEor# ls

>

```
doc#er netEor# create  
//driver 'bridge  
//subnet ' BKL,BM,C,C3BN  
//gateEay ' BKL,BM,C,B  
myInetEor#Iname
```

> doc#er netEor# inspect

> Sur ces réseau : le nom des containers est un alias réseau 5!ostname6 par défaut



doc#erC

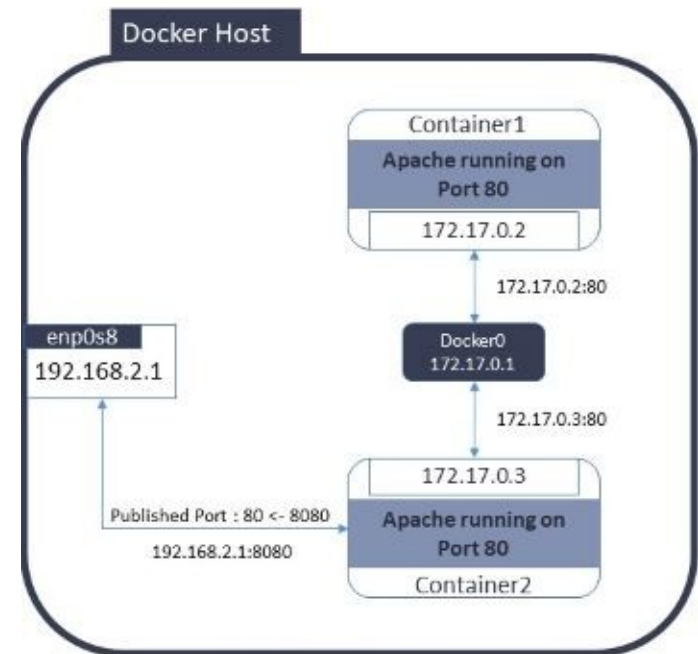
BKL,BK,C,B3BN

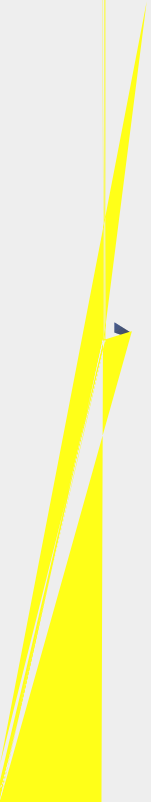
> Publier

```
doc#er run J /p enpCsM&MCMC&MC
```

```
/p MCMC/MCOC&MC3tcp
```

```
/P D //publis!/all
```





volumes

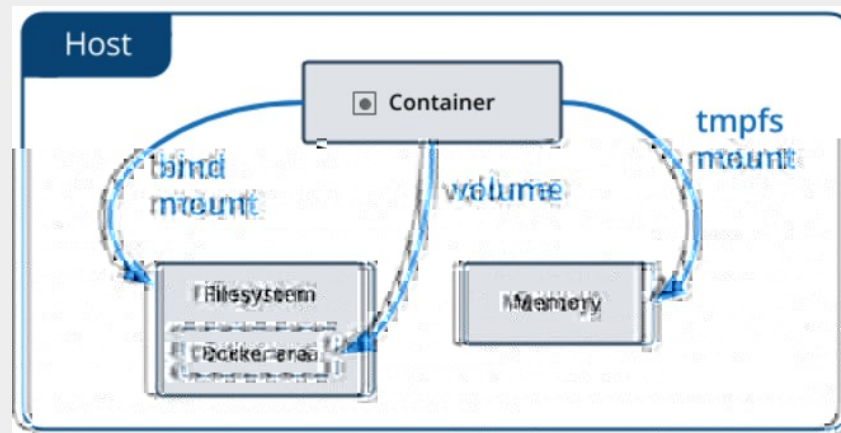
bind mounts

volumes nommés

tmpfs

dossier utilisateur

dossier géré par docker





overlayL
overlayQS du noyau linu % R,BM

doc#er info



mount

> /v

```
doc#er run J /v pat!3to3bind|mount&3pat!3on3container&optB:optL: J
```

```
doc#er run J /v volume|name&3pat!3on3container&ro J
```

> //mount
driver spécifique via les param9tres volume/opt

```
doc#er run J //mont src' pat!3to3bind|mount:dst'3pat!3on3container:readonly
```

```
doc#er run J //mount src' volume|name:dst'3pat!3on3container:volume/  
driver' local:volume/opt'type'nfs,,,
```






> enregistrer l'état d'un container

>

```
doc#er diff $ctn I< D ctn name %
```

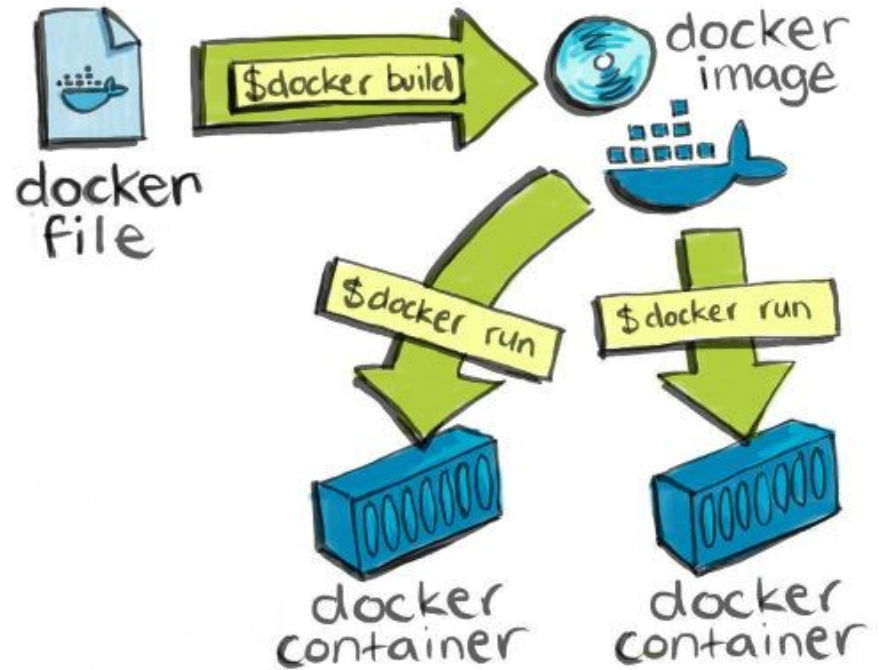
>

```
doc#er commit $ctn I< D ctn name % $image name%&$tag%
```

>

volumes

directives





- QRPM \$image%&\$tag%
- 0AS=0 \$#ey% \$value%
- CPPT 1 //option 2 \$src% \$dest%
- A<< 1 //option 2 \$src%*\$dest%
- R> - *\$cmd%
- >S=R \$user1&group2%
- UPRV<IR \$pat !%
-

> conte te de build

```
doc#er build /t $image*& tag% pat!3to3conte t
```

> ,doc#erignore

```
doc#er build /t $image*& tag% 3pat!3to3<oc#erfile
```

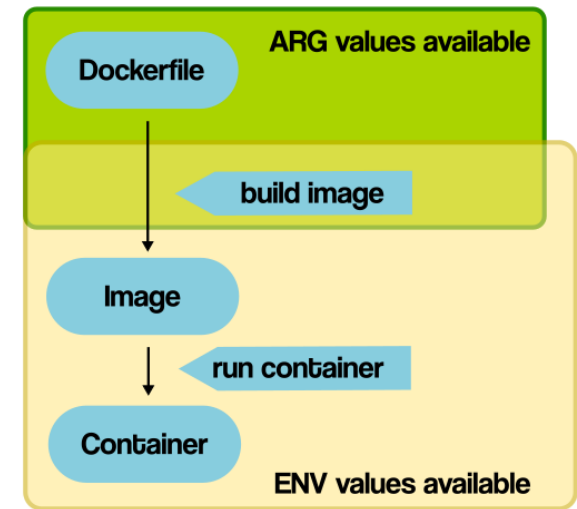
> = - F

```
= - F FAR
= - F FAR 'default
```

>

> AR)

```
AR ) PARAM
'''
doc#er build /t $image*& tag%
```





$X=A0TXCX=CV$





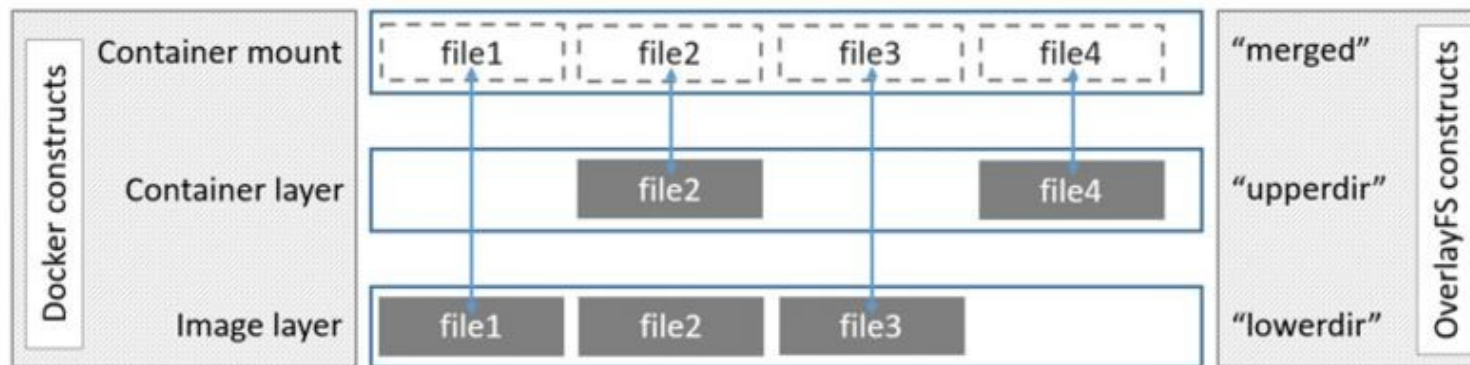
en lecture seule

fine couc !e en lecture écriture

en lecture
il n'est pas copié

modifié

copié



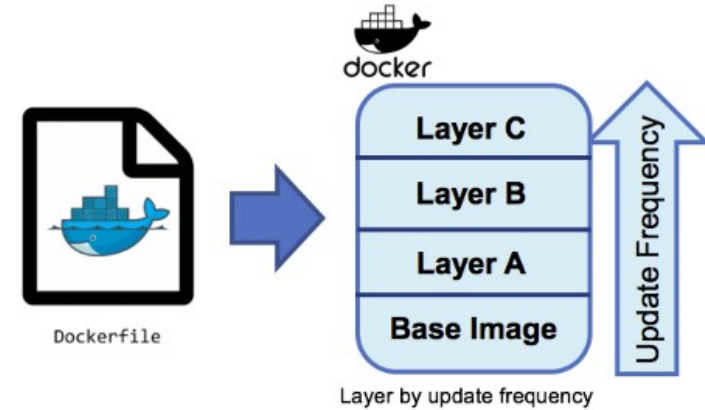
fréquence de mise à jour croissante

```
R> - cmdB  
R> - cmdL
```

```
R> - cmdB ZZ [  
      cmdL
```

dangling images

docker image prune









> //cpus

⇒

> //cpuset/cpus*& sélection de CP>s autorisés pour le container

/ numérotés Y partir de C*& //cpuset/cpus 'C:R

//cpuset/cpus 'C/R

>

!top



3dev3sda

df /!: doc#er inspect \$CT - l< D - ame% D grep <evice



//device/read/bps et //device/Erite/bps



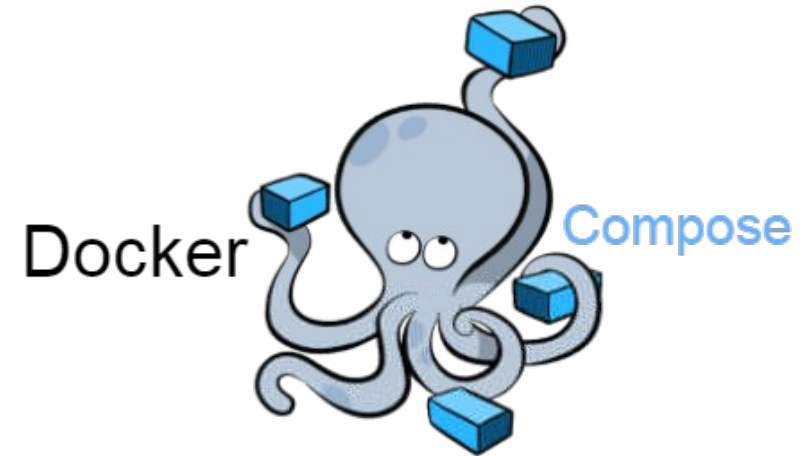
iotop



- > polinu 3stress
- > doc#er e ec /it \$I<% stress /!
- > !ttps&33!ub,doc#er,com3r3polinu 3stress/ng

fic!er de configuration

TAM0



microservices

```
sudo apt/get install doc#er/compose/plugin
```




sérialisation



\SP - déplié

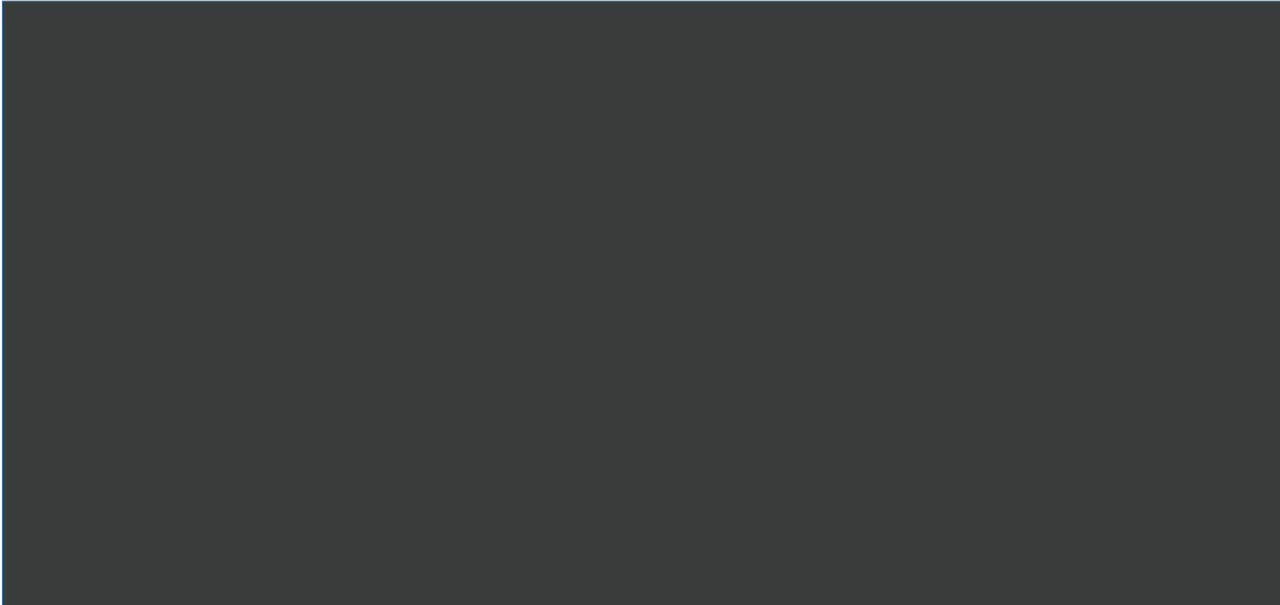


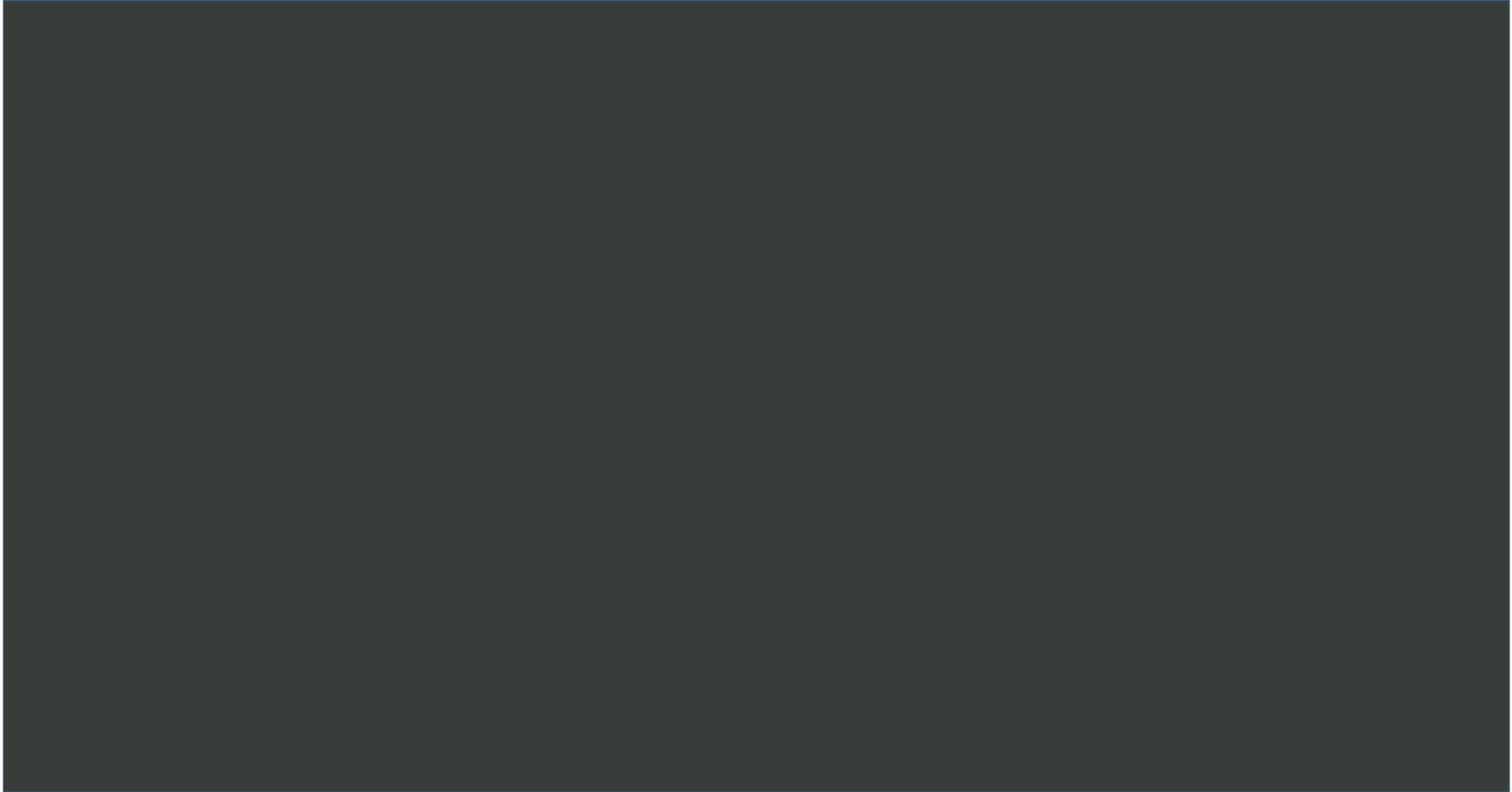


indentation

/ 1espace2

\SP -







up /d



doEn /v



rm /f



run \$ctn name% \$cmd%



logs: ps

