

Docker: First Contact



neofonie*



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Plan

- What is it about?
- How is it working?
- What can we do?
- Let's create something!
- Possibilities...

■ What is it about?

■ What is it about?

- Container management
- Container deployment
- OS abstraction
- Open source

■ How is it working?

How is it working: Bricks

- cgroups

Limitation of the resources.

(CPU, File System, Processes,...)

How is it working: Bricks

- kernel namespaces
No view on what is out of range.
(PID, Network, Mounts, UID,..)

How is it working: Bricks

- aufs/overlay/...
Layered filesystem
- iptables
NAT

■ How is it working: Bricks

Stable since years.

Only the API and the organization are new.

How is it working: Components

- Daemon
- Client
- Registry

Communication via API



How is it working: Internals

- Images: the binary
- Containers: the instance
- Registries: the repository for images

■ What can we do?

■ What can we do?

By default the API is reachable at:

```
/var/run/docker.sock
```

The client is named `docker`.

■ What can we do?

The commands are like:

```
docker [options] command [arg]
```

■ What can we do?

Management of images

`images, build, rmi`

Life cycle of containers

`run, stop, rm, pause, commit`

■ What can we do?

Info

`ps, inspect, logs, top, stats`

Backups

`save/load, import/export`

What can we do?

Registry

push/pull

Other

exec, tag

■ **Let's create something!**

Live improvisation!

■ Possibilities...

■ Possibilities...

What was working before is still working.

■ Possibilities... Improvements

Some dreams are closer!

No stage dependencies (nearly)

Develop in production

■ Possibilities... Improvements

Redeploy, don't update


Scaling is easier

■ Possibilities... Improvements

- docker-compose
- docker-swarm

■ **Thank you!**

Questions?

An astronaut in a white spacesuit is floating in space. The Earth is visible in the background, and a large portion of the Moon is on the right side of the frame. The background is a dark, starry space.

www.neofonie.de/docker-workshop

github.com/neofonie

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