

USING DOCKER FOR TESTING

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ABOUT ME

Engineer @ CloudBees, scaling Jenkins



Long time OSS contributor at Apache (Apache Maven),
Jenkins, Eclipse, Puppet,...





Kernel Sanders

@lstoll

The solution: Docker. The problem? You tell me.

CONTAINERS

- Linux containers
- File System
- Users
- Processes
- Network

EVERYTHING at Google runs in a container

Starts over two billion containers per week

**DOCKER DOCKER
DOCKER**



BUT IT IS NOT TRIVIAL



OPERATING SYSTEMS

ENGINE SUPPORT

The Engine runs the containers

- Linux
- Windows

OPERATING SYSTEMS

CLIENT SUPPORT

The client talks to the engine through an API

- Linux
- OS X
- Windows

BUILD ONCE

RUN ANYWHERE

Bare metal

Virtual Machines

Cloud

DEVELOPER ORIENTED

Dependency hell

Installation nightmares

"it ran on my machine"

OPS ORIENTED

No need to know internals of apps

Focus on OPs problems (scale, monitoring,...)

Clearer deliverables from dev

App



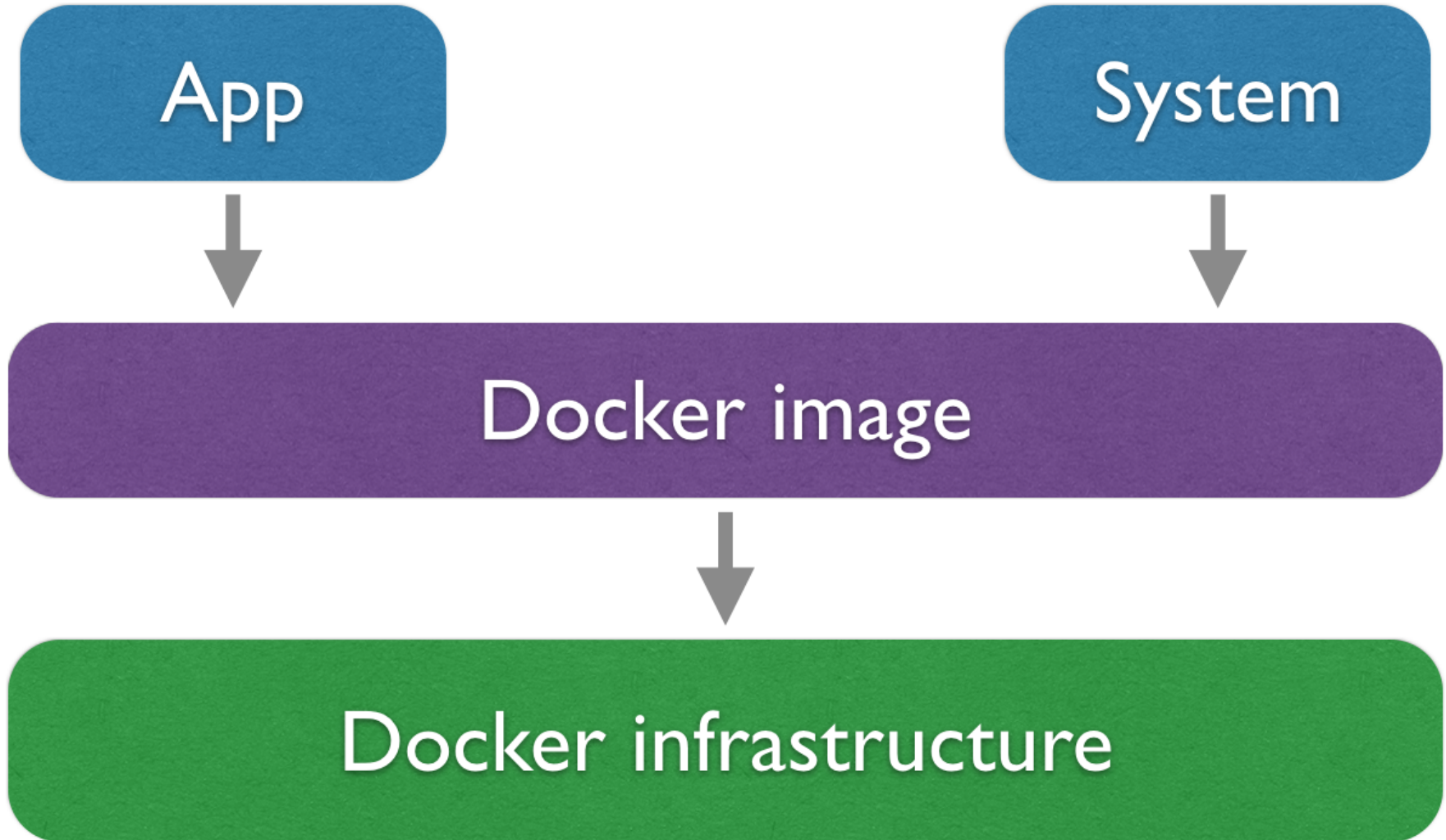
System



Docker image



Docker infrastructure



Service Providers



Dev Tools



Official Repositories



Operating Systems



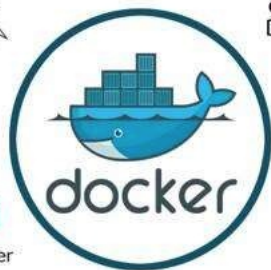
Configuration Management



Big Data



Service Discovery



Orchestration



System Integrators





docker hub

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Docker Hub

Dev-test pipeline automation, 100,000+ free apps, public and private registries

New to Docker?

Create your free Docker ID to get started.

Choose a Docker ID

Email address

Choose a password

Sign Up

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RELATED PROJECTS

DOCKER MACHINE

Provision Docker engines in virtual machines

- Amazon EC2
- Microsoft Azure
- Google Compute Engine
- OpenStack
- Rackspace
- VMware

DOCKER COMPOSE

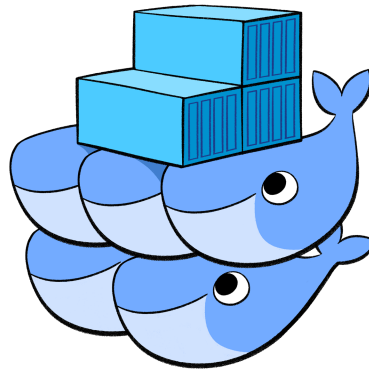
Define multi container applications

```
version: '3'
services:
  web:
    build: .
    ports:
      - "5000:5000"
    volumes:
      - ./code
      - logvolume01:/var/log
    links:
      - redis
  redis:
    image: redis
volumes:
  logvolume01: {}
```

ORCHESTRATORS



MESOS



kubernetes

DOCKER AND SELENIUM

Manage multiple combinations of browsers

Any number of them

Standalone or Selenium Hub even with VNC

selenium/node-firefox ☆

Last pushed: 9 days ago

Repo Info

Tags

Dockerfile

Build Details

Short Description

Short description is empty for this repo.

Full Description

Selenium Grid Node - Firefox

Selenium Node configured to run Firefox

Dockerfile

selenium/node-firefox [Dockerfile](#)

How to use this image

First, you will need a Selenium Grid Hub that the Node will connect to.

```
$ docker run -d -P --name selenium-hub selenium/hub
```

Once the hub is up and running will want to launch nodes that can run tests. You can run as many nodes as you wish.

```
$ docker run -d --link selenium-hub:hub selenium/node-firefox
```

Docker Pull Command



```
docker pull selenium/node-firefox
```

Owner



selenium

Source Repository

[SeleniumHQ/docker-selenium](#)

selenium/standalone-chrome-debug ☆

Last pushed: 9 days ago

Repo Info

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Build Details

Short Description

Short description is empty for this repo.

Full Description

Selenium Grid Standalone - Chrome Debug

This image is only intended for development purposes! Runs a Selenium Grid Standalone with a VNC Server to allow you to visually see the browser being automated.

Dockerfile

selenium/standalone-chrome-debug [Dockerfile](#)

How to use this image

```
$ docker run -d -P selenium/standalone-chrome-debug
```

You can acquire the port that Selenium is listening on by running:

```
$ docker port <container-name|container-id> 4444
```

```
#=> 0.0.0.0:49338
```

Docker Pull Command



```
docker pull selenium/standalone-chrom
```

Owner



selenium

Source Repository

[SeleniumHQ/docker-selenium](#)

SELENIUM HUB

```
docker run -d -p 4444:4444 --name selenium-hub selenium/hub:3.4.0
docker run -d -p 5901:5900 --link selenium-hub:hub \
    selenium/node-chrome-debug:3.4.0
docker run -d -p 5902:5900 --link selenium-hub:hub \
    selenium/node-firefox-debug:3.4.0
```


GRACIÑAS

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