Demystifying Docker
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About you
Today

• What is Docker?
• Docker in practice
• Docker's past, present, and future
• Tutorial
• Wrap up
"It worked in my development environment"
The promise of Docker:

Build once, run anywhere
What is Docker?
Virtualization tool?

Configuration manager?

VM manager?

cgroups?

LXC?

libvirt?

go?
Docker.com says

Docker is an open platform for developers and sysadmins to build, ship, and run distributed applications.
Less portable, minimal overhead

Manual configuration

CM tools

Most portable, lots of overhead

Docker

Traditional VMs
Docker in practice
New code

Development machine

Build server

Production

Git server

Docker Registry

Docker Image

Deployment

atbaker/myproject

684e41302692
Containers

How you **run** your application

Images

How you **store** your application
Dockerfiles

# Set the base image to Ubuntu
FROM ubuntu

# Update the repository sources list
RUN apt-get update

# Install MongoDB package (.deb)
RUN apt-get install -y mongodb-10gen

# Create the default data directory
RUN mkdir -p /data/db

# Expose the default port
EXPOSE 27017

# Default command to start the database
CMD ["usr/bin/mongod", "--port 27017"]
Docker library images

How to use this image

Create a `Dockerfile` in your Python app project

```
FROM python:3-onbuild  
CMD [ "python", 
      
"./your-daemon-or-script.py" ]
```

or (if you need to use Python 2):

```
FROM python:2-onbuild  
CMD [ "python", 
      
"./your-daemon-or-script.py" ]
```

These images include multiple `ONBUILD` triggers, which should be all you need to bootstrap most applications. The build will COPY a `requirements.txt` file, RUN `pip install` on said file, and then copy the current directory into `/usr/src/app`.

You can then build and run the Docker image:

```
docker build -t my-python-app .
docker run -it --rm --name my-running-app my-python-app
```
Docker's past, present, and future
Lightning Talk - The future of Linux Containers

Summary
Solomon talks about Linux Containers which they use at dotCloud and how people are interested in how they do it, but it’s complicated so until now they haven’t talked about it. Until now: Docker.
Tons of open source projects!
Dependency-heavy utilities

vvo / gifify

Convert any video file to an optimized animated GIF.

Requirements

Before using gifify, please install:

- FFmpeg 🐦🐦🐦
- convert, the famous ImageMagick
- pornel/giflosy, it's a gifsicle fork

You can also use the gifify Docker image which comes with everything installed.
2014
• Get to 1.0 (production-ready)
• Establish partnerships
• Round out some rough edges (v1.3)

2015
• Make Docker easier to use
• Popularize best practices for scaling
• "Include more batteries"
Ready to try it?
docker.atbaker.me
THANK YOU!

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