



DOCKSAL

More Dev / Less Ops



Hi there!



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Maintainer on the Docksal Project

Drupal Development > 10 years

First Time @ Drupal Corn



What we will be going over...

- About Docksal
- Installing Docksal
- Adding Docksal to Projects
- Extending Docksal
- Demo
- Q&A



What we won't be going over...

- Docker specifics/configurations - docs.docker.com
- Configuring CI/CD Services - CircleCI, TravisCI, Gitlab, Pipelines, etc.
- Setting Up Docksal Sandboxes - Contact Me
- Writing Bash Scripting - bit.ly/bash-scripting
- Other similar software - (Lando, DDev, Lagoon, etc.)



History



Bare Metal

- Local servers, MAMP, WAMP, XAMPP, ...
- Hard to manage multiple versions
- Hard to synch with prod
- Can't share with other devs
- "Works for me"



VMs

- VMs: Drupal VM, Acquia Dev Desktop, custom
- Monolithic
- Lots of disk, memory
- Maintenance is hard
- Big files, slow to provision



Containers

- Smaller / Faster
- Modular
- Maintainable
- Shareable
- Portable
- Scalable



Development Operations

DevOps



What is DevOps?

DevOps is the combination of cultural philosophies, practices, and tools that increases an organization's ability to deliver applications and services at high velocity: evolving and improving products at a faster pace than organizations using traditional software development and infrastructure management processes



DEVOPS



What my friends think I do.



What my mom thinks I do.



What society thinks I do.



What my boss thinks I do.



What I think I do.



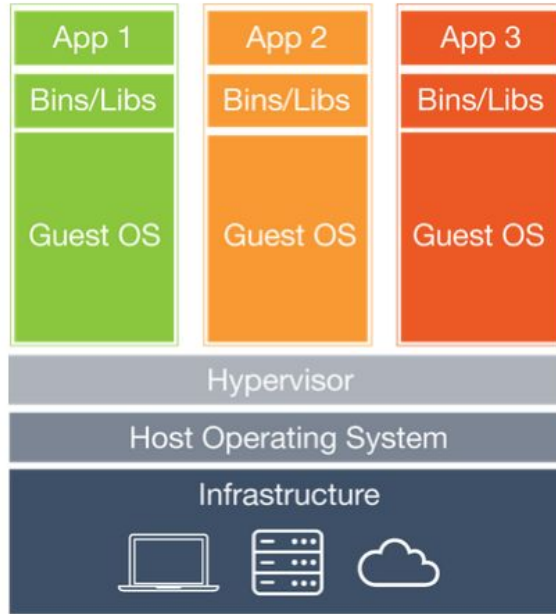
What I actually do.



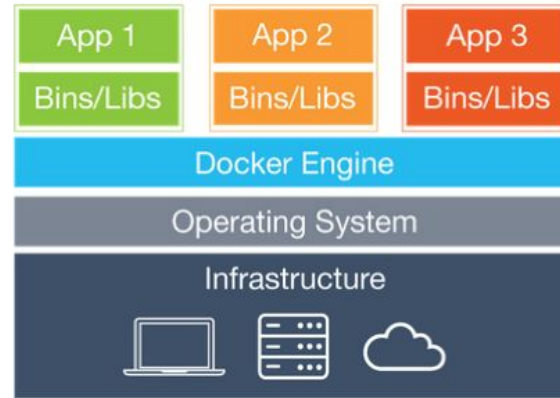
Docker



Why Docker?



Virtual Machines

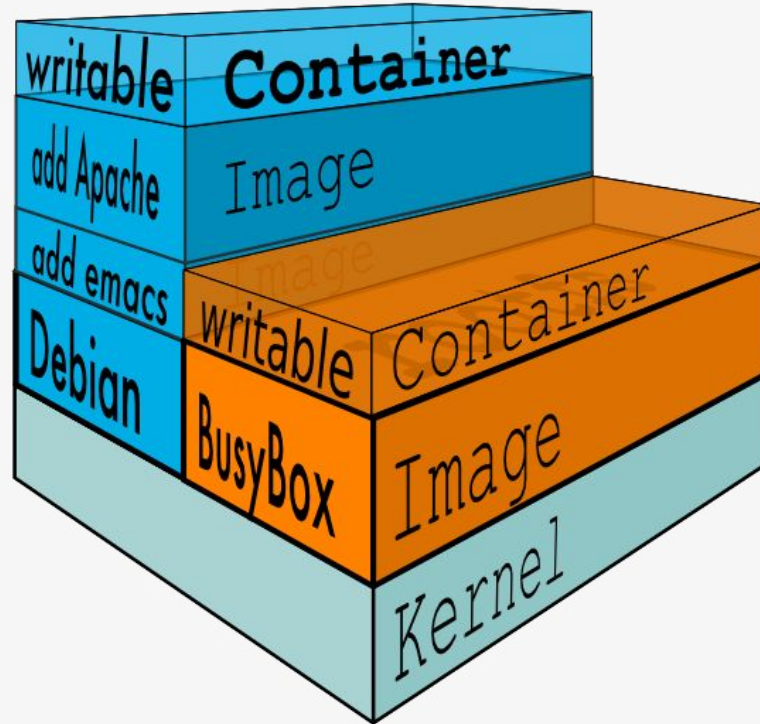


Containers





Why Docker?



WAT



Why Docker?

Installing

Configuration

Multiple Versions

Multiple Projects

Environment Templates



Do you find yourself ...

Duplicating efforts

1 time install software

1+ hrs to onboard other devs

Too long to set up local environment

Going Insane yet?



What's Docksal?

About:

- Helps manage dev environments
- Minimizes configuration
- Consistent
- Efficient Onboarding

Features:

- Docker based
- Default AMP Stack
- Easy Installation
- Cross Platform
- Extendable



Installing Docksal



Installing

MacOS / Linux

```
curl -fsSL https://get.docksal.io | sh
```

Using Vagrant? Read before installing: bit.ly/docksal-vagrant

Windows

Requires a Linux Subsystem: Babun (Recommend)
Ubuntu (Experimental) bit.ly/docksal-windows-ubuntu



Docksal with Projects



Docksal with Projects

Project Install Wizard

```
fin project create
```

Existing Project

```
mkdir .docksal  
fin start
```



Drupal 8 Composer - bit.ly/2yFxufR

Other Boilerplates - bit.ly/docksal-examples

Why Docksal?
Why not Docker?



Commands w/ Docker

Docker4Drupal

Drush, Console, Composer:

```
$ docker-compose exec --user 82 php drush status -r /var/www/html/web  
$ docker-compose exec --user 82 php drupal list  
$ docker-compose exec --user 82 php composer list
```

Execute Command in PHP Container:

```
$ docker-compose exec --user 82 php pwd
```

MySQL shell:

```
$ docker-compose exec mariadb /usr/bin/mysql -uroot -p"password"
```

DB import/export:

Import: Add my-db-dump.sql before bringing up container

```
$ docker-compose exec mariadb sh -c \  
    'exec mysqldump -uroot -p"password" my-db' > my-db.sql
```

Logs

```
$ docker-compose logs
```



Commands w/ Docksal

Drush, Console, Composer:

```
$ fin drush status  
$ fin drupal list  
$ fin composer list
```

Execute command in 'cli' container:

```
$ fin exec pwd
```

MySQL shell:

```
$ fin db cli
```

DB import/export:

```
$ fin db import db.sql  
$ fin db dump db.sql
```

Logs:

```
$ fin logs cli
```



Extending Docksal



Tools & Services Available



AND MORE!



There's an image for that!

Extending

Commands / Addons

- Speed up our workflow
- Shareable
- Reusable
- Target Specific Environments

Apache

- File Proxy vs. Stage File Proxy

PHP

- Increase Memory
- Inject Database Credentials
- Increase File Post

MySQL

- Enable Slow Query Logging
- Modify my.cnf



Commands

Commands are scriptable actions that help simplify a project/developers workflow.

Gulp Wrapper - bit.ly/2Jc8ouR

```
#!/usr/bin/env bash
#: exec_target = cli
## Run Gulp Commands on the theme
## Usage: fin gulp [arguments]
# Abort if anything fails
set -e
cd ${PROJECT_ROOT}/web/themes/custom/site_theme
gulp "$@"
```



Commands (cont.)

Refresh Database - bit.ly/2shwj2h

```
#!/usr/bin/env bash
#: exec target = cli
## Pull Database Using Drush (full reset of db)
## Usage: fin refresh [environment id]
set -e
ENVIRONMENT=${1:-prod}
cd /var/www/${DOCROOT}
DBFILE="/tmp/site.${ENVIRONMENT}.sql"
if [ ! -f $DBFILE ] || [ ! -z $(find $DBFILE -mmin +60) ] ; then
    if [ ! -f $DBFILE ]; then
        echo "Database file does not exist."
    elif [ ! -z $(find $DBFILE -mmin +60) ]; then
        echo "Database file is older then 1 hour"
    fi
    echo "Exporting ${ENVIRONMENT} Database..."
    drush @remote.${ENVIRONMENT} sql-dump > $DBFILE
fi
echo "Truncating Database..."
drush sql-drop -y
echo "Importing Database..."
drush sql-cli < $DBFILE
```



Addons

adminer	Adminer database management tool	MySQL
codeclimate	CodeClimate code quality tool	
mailhog	Mailhog e-mail capture service for current project	
phpunit	Creates a phpunit.xml file and runs PHPUnit tests	Drupal
pma	PhpMyAdmin database management tool	MySQL
redis	Add Redis to current project	
sequelpro	Launches SequelPro with the connection information for current project.	macOS
solr	Apache Solr search service for current project	
uli	Generate one time login url for current site	Drupal

See more @ github.com/docksal/addons



K.I.S.S.

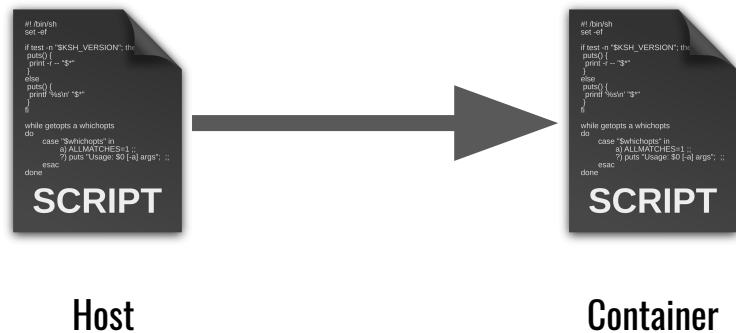
Keep It Simple Superhero

YES YOU!

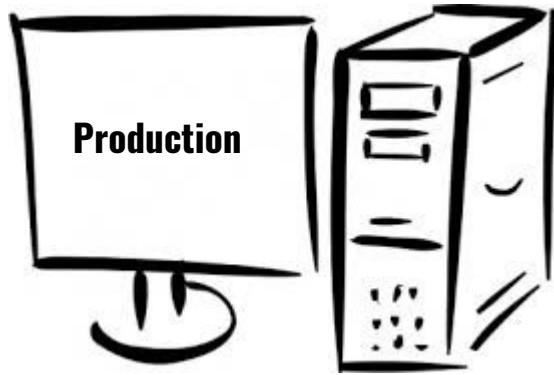


One and Done ...

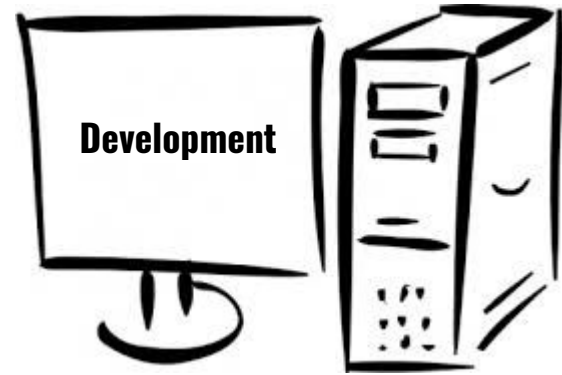
- Run fin init
- init is a command
- Runs steps
 - Destroy
 - Initialize
 - Install
 - Set Up



Goal!!!



=



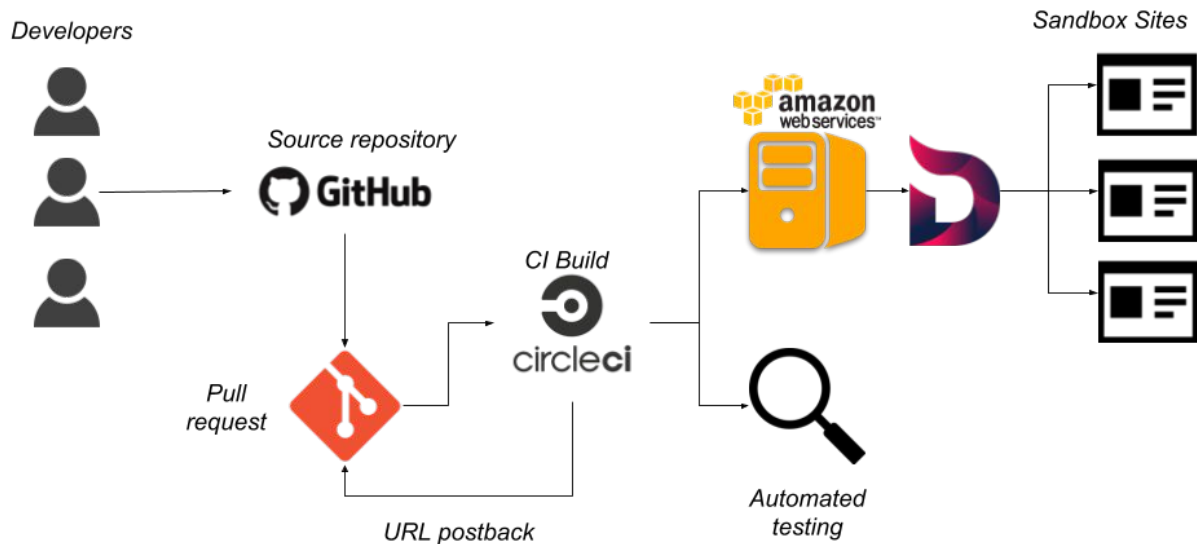
Demos

1. Starting new project
2. Converting project from local AMP
3. Onboarding new developers



Docksal and QA Delivery

- Enhanced code reviews
- Continuous QA
- Automated VRT/BDD testing
- Demos



2018 BADCamp

SANDBOX CI/CD ENVIRONMENTS FOR EVERYONE

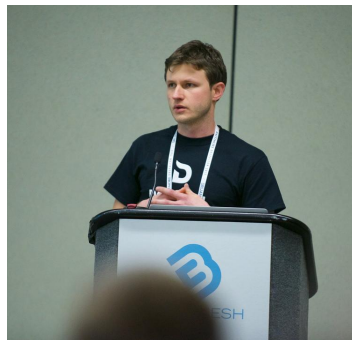
Leonid Makarov

<https://bit.ly/2ONgSYR>

If your project is hosted with one of the BIG-3 Drupal hosting providers, then your team is most likely already enjoying some sort of sandboxing solution provided by them. You commit code, a CI build runs, and a new sandbox (CD / multidev / on-the-fly) environment is magically provisioned for you. Life is good!

BUT What if your project isn't hosted on one of those hosting companies?

Every development team should be able to use these features in a simple and coherent way regardless of where their projects are hosted. How?



Questions?

