



Development is Production

sardines.rb 2016-06-28

Development is production

About me

Engineering lead for the Checks and Data team

Author of Elixir Cookbook

Passionate about functional programming

Avid learner

Twitter: [@odesassossegado](https://twitter.com/odesassossegado)

Blog: <http://blog.onfido.com/author/paulo-a-pereira/>

Development is production

Overview

Replicating the production in development

- Why ?
- How ?

Development is production



Development is production



Development is production

- a C program with six **32**-bit integers can have more states than the number of atoms in the planet !
- His machine has a **250GB** SSD
 - So can be in $2^{250,000,000,000 \times 8}$ different states
- Number of atoms in the universe = 10^{78-82} , say 2^{260}
- Need $2^{7633587786}$ Universes to find a computer that has the same state as his machine

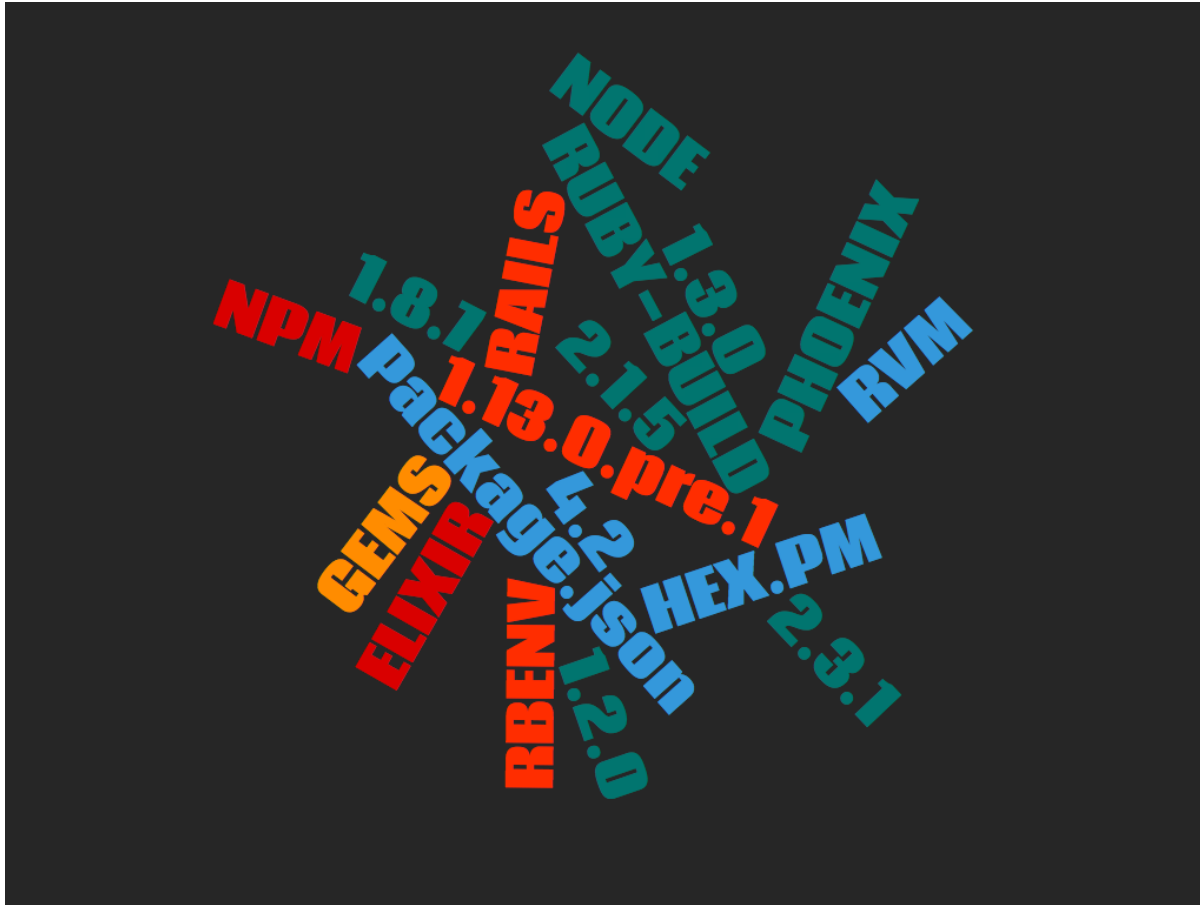
source: Joe Armstrong's talk "The mess we're in"

Development is production

Do you really want to play with these odds ?



Development is production



Replicating the production in development - Why ?

- 9 apps
- 3 services (rabbitmq, postgres, redis)
- Ruby 2.1.5, 2.3.0
- Rails 3.2.21, 4.2.5
- Elixir 1.2.6

Development is production

Replicating the production in development - Why ?

- The tests we run locally should be the as close as the ones we run in our CI
- The environment we use should be as close as the one used in production
- Easy to setup on a new machine

Development is production

Replicating the production in development - How ?

- Docker
- Already used in production: why not take advantage of it ?

Development is production

Regardless on how you deploy Docker containers you get:

- Isolation
- Replicability
- Why restart an app when you can restart the whole container ?

Development is production

Our path so far:

- Created an internal tool to make interaction with containers easier: Bob
- Improved the initial tool: Jarvis
- Dusty became usable (<http://dusty.gc.com>)



Dusty 101

- Apps
- Services
- Bundles



Demo time !

a.k.a. "what can possibly go wrong ?"

Q & A