

CONTINUOUS TESTING

JARED RICHARDSON
AGILE ARTISANS

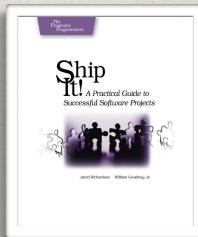


WHO ARE YOU?



JARED RICHARDSON

CoAuthored Ship It! and Career 2.0



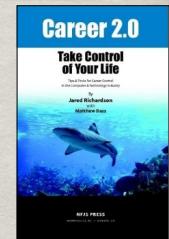
Screencast editor for PragProg.com

Started Agile RTP in 2007

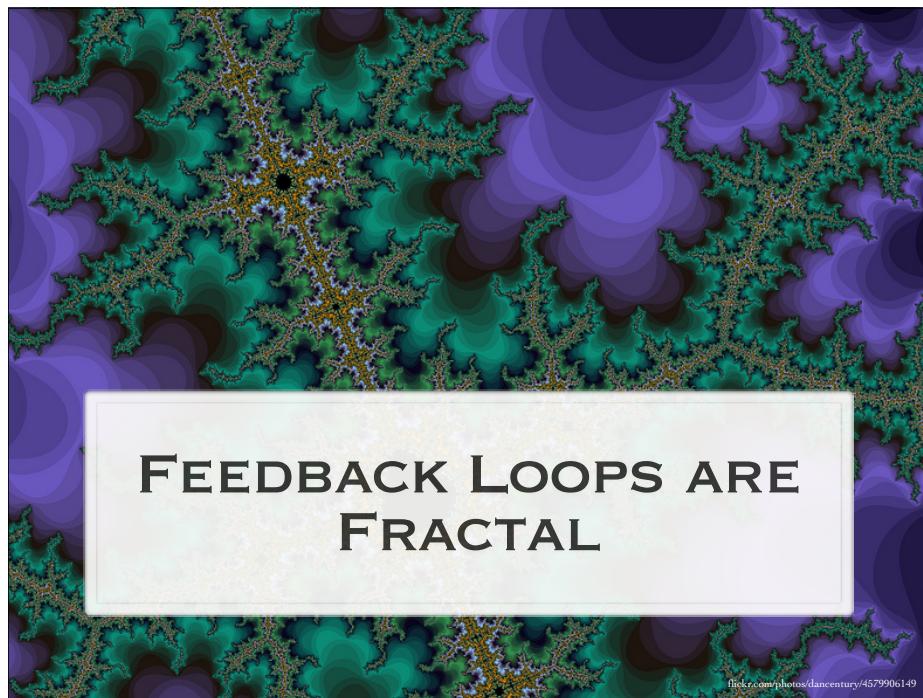
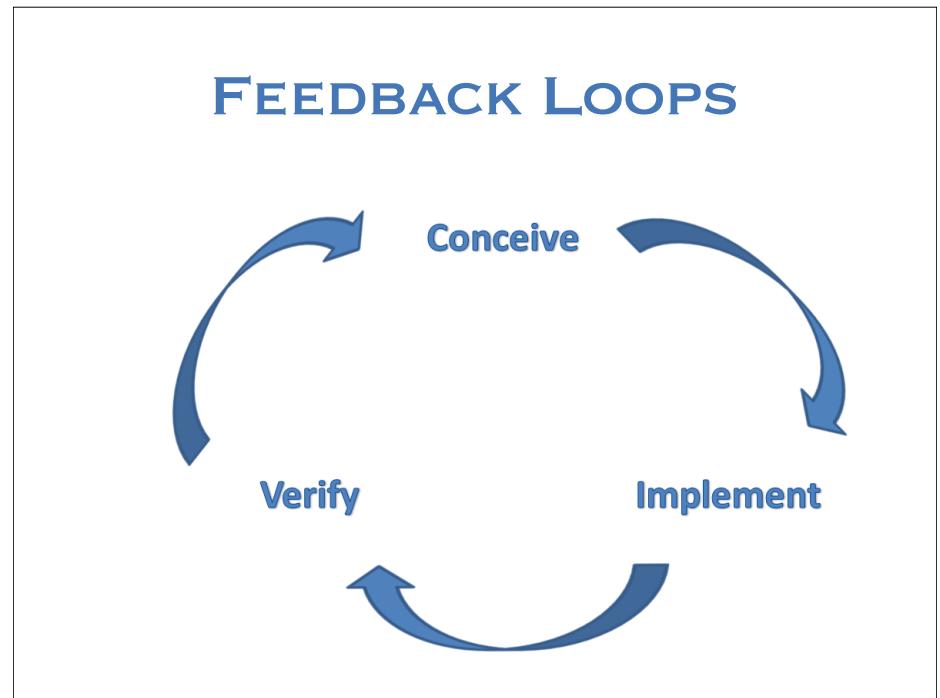
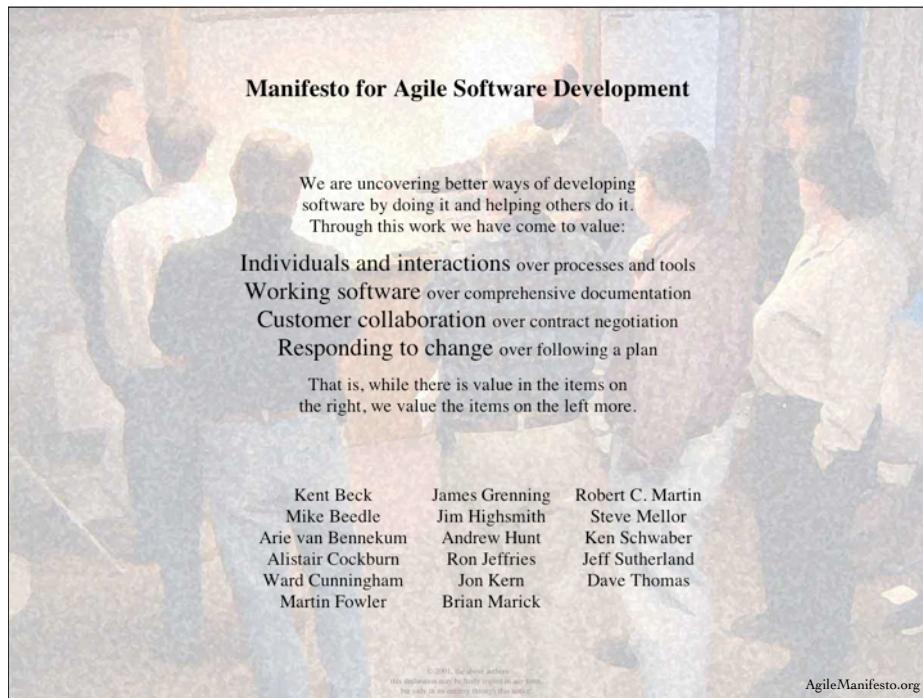
2nd public signatory of the Agile Manifesto

Agile coach

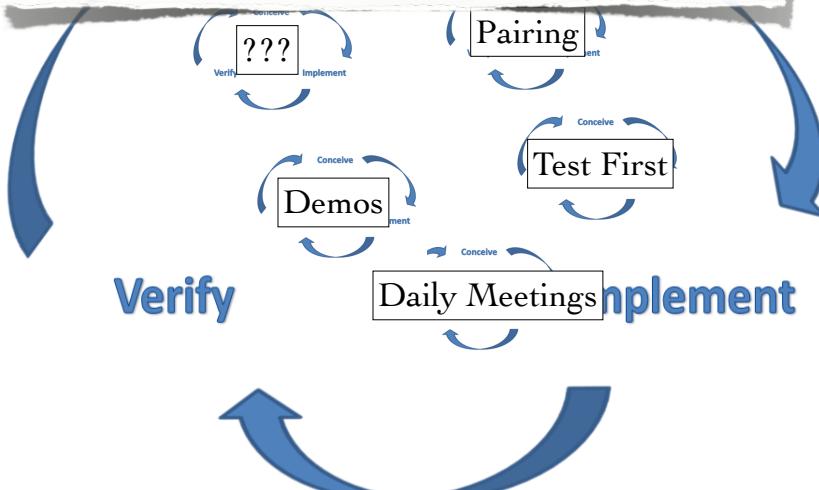
AgileArtisans.com



WHAT IS AGILE?



FEEDBACK LOOPS INSIDE FEEDBACK LOOPS



DIFFERENT LEVELS

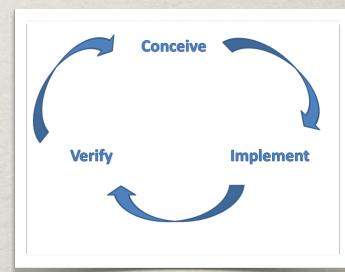
Good at the bottom

Great at the top

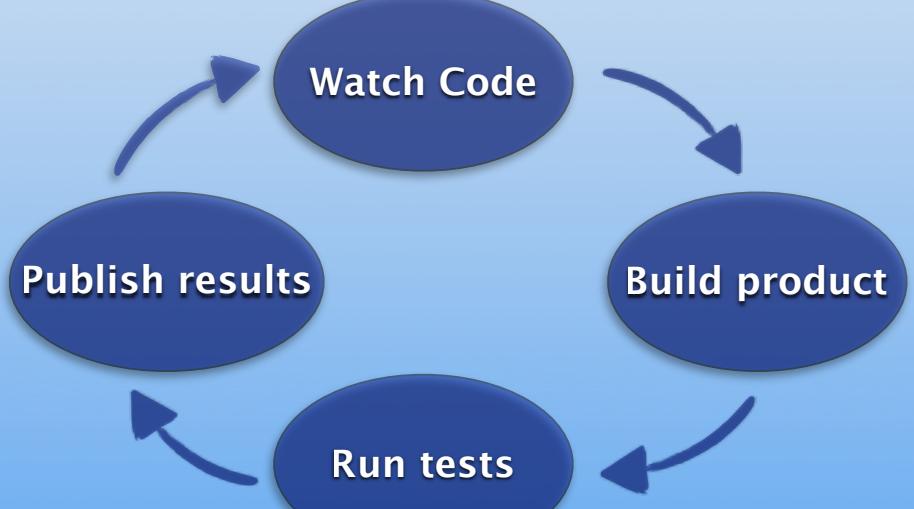
Ignore the middle

CONTINUOUS FEEDBACK

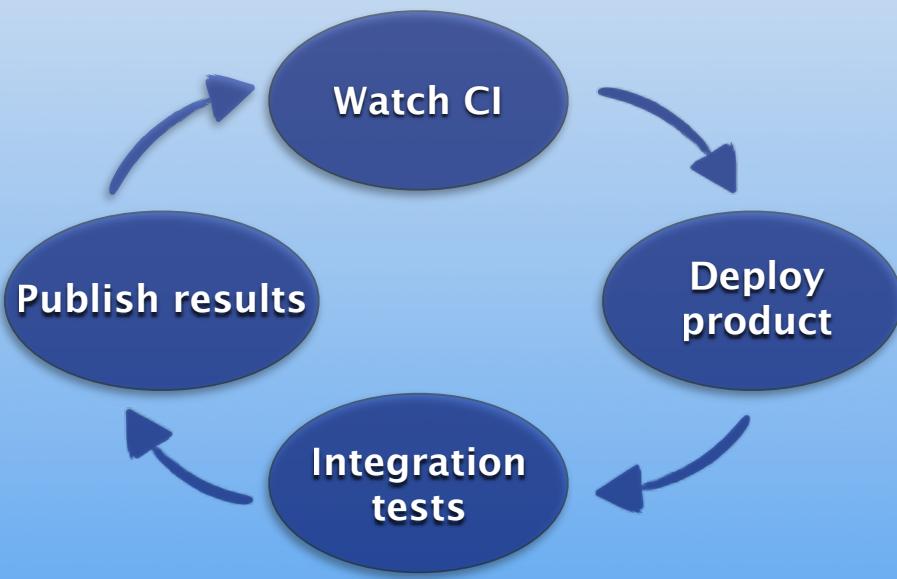
Continuous Integration
Continuous Delivery
Continuous Testing



Continuous Integration



Continuous Testing



CONTINUOUS TESTING

Build in CI (compile & unit tests)

Deploy to dev (staging)

Run integration tests

WHAT DOES THIS TELL US?

If it works

Continuous deployment is controversial.

Most people ... think I'm advocating
low-quality code
or an undisciplined
cowboy-coding
development process.

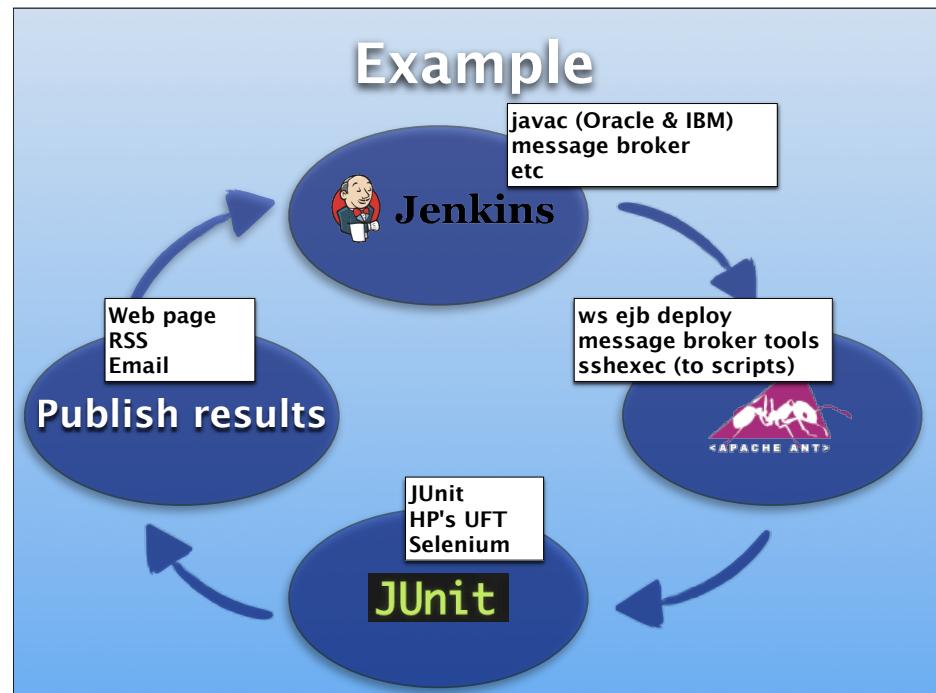
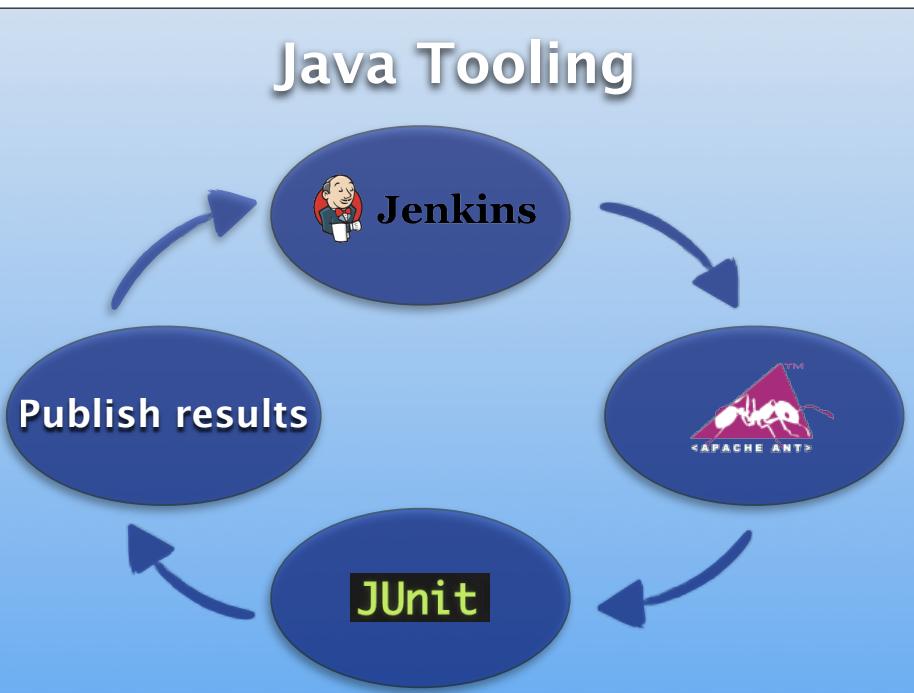
ERIC RIES

radar.oreilly.com/2009/03/continuous-deployment-5-eas.html

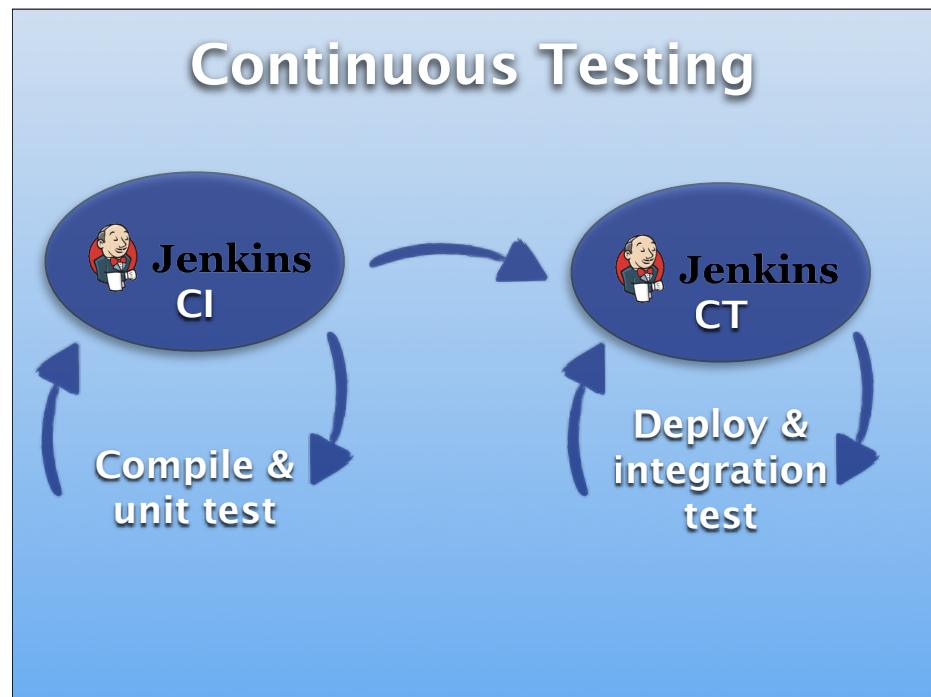
LANGUAGE IS A TOOL

Use it

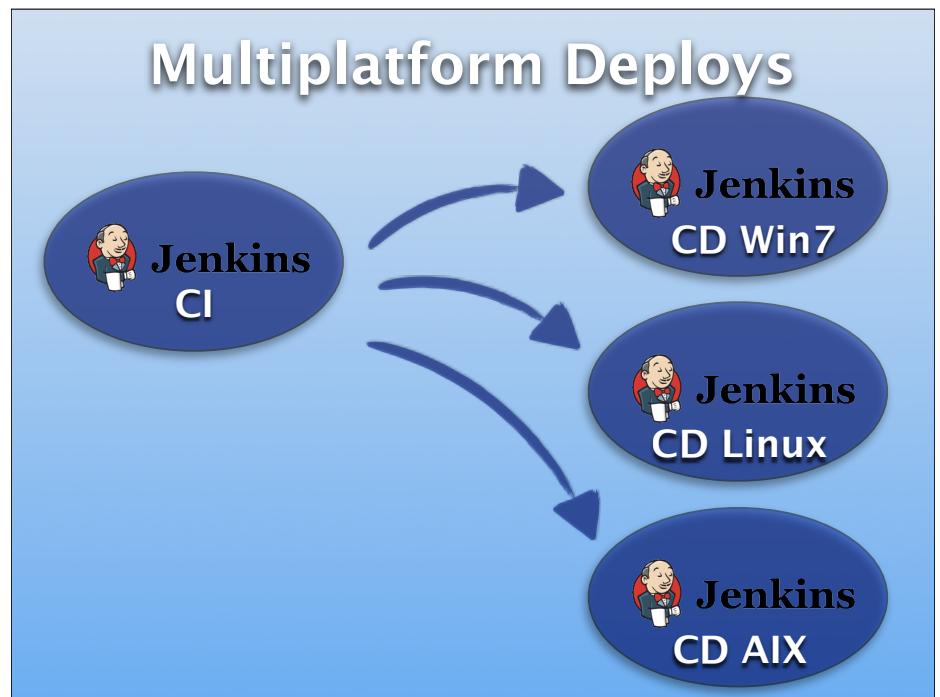
WHAT'S THIS LOOK LIKE?



Continuous Testing



Multiplatform Deploys



Binaries

Nuke & Pave
Delete
Recompile
Deploy
Use



flickr.com/photos/x-ray_delta_one/4152356464

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Data

Nuke & Pave
Delete schema
Drop tables
Recreate
Restock
Rails
Liquibase



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Rails ActiveRecord

```
CREATE TABLE products (
  id int(11) NOT NULL auto_increment,
  name varchar(255),
  PRIMARY KEY (id)
);
```

25

Rails ActiveRecord

```
change_table :card_deck do |t|
  t.remove :description, :name
  t.string :first_name
  t.index :part_number
  t.rename :list_name, :last_name
end
```

26

Rails ActiveRecord

```
rake db:migrate
rake db:migrate VERSION=0
rake db:reset
```

27

Operating System

Nuke & Pave
Virtualize
Recreate



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Vagrant

```
vagrant init lnx http://lnx/lnx.box  
vagrant up  
vagrant ssh  
vagrant reload --provision
```

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Vagrant

```
Vagrant.configure("2") do |config|  
  config.vm.box = "lnx"  
  config.vm.provision :shell, :path => "bootstrap.sh"  
end
```

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BENEFITS

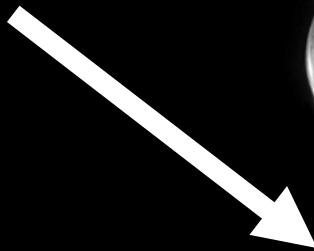
- Reproducible environment
- Solid results
- Fast results
- Repeatable results

Fast
feedback
leads to
fast fixes



Minimize Dark Times

Code Change



Validation

<http://flickr.com/photos/bogenfreund/556656621/>

WHEN?

Day one

Easiest

EASY?

No

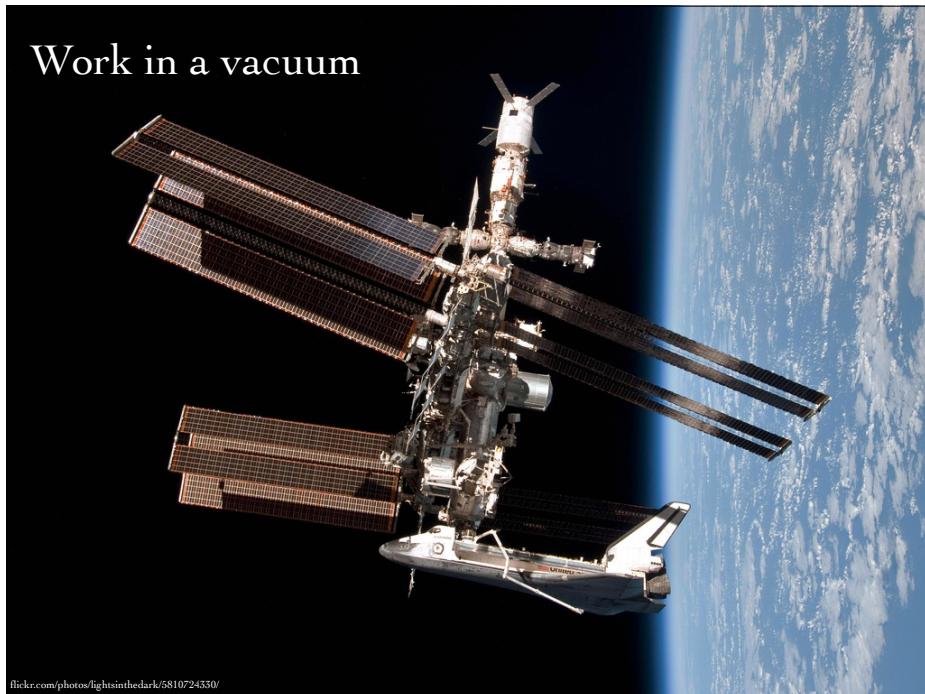
Difficult

Necessary

Code

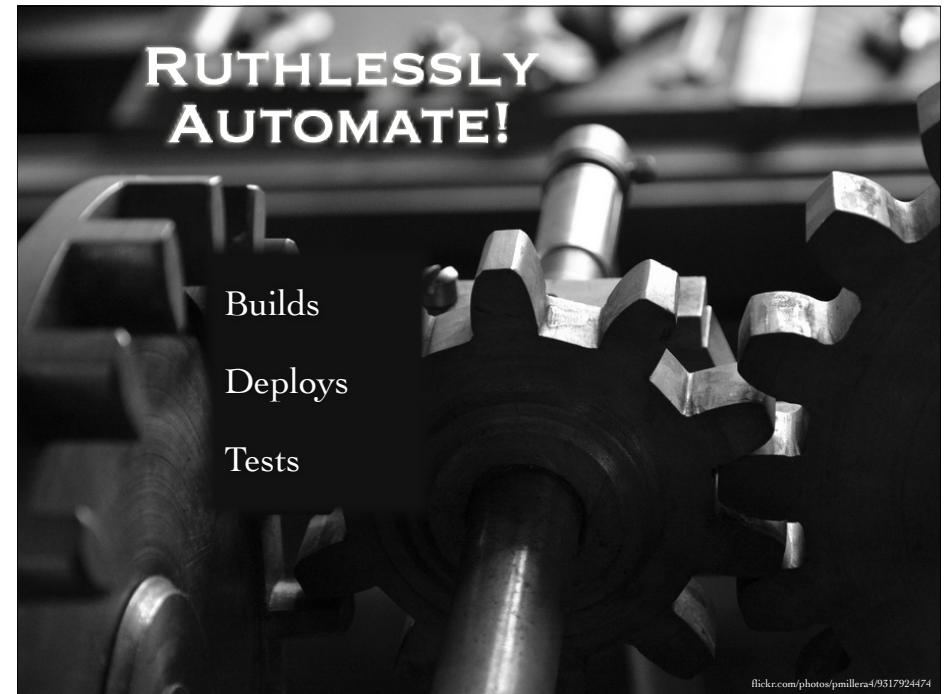
ALTERNATIVES

Work in a vacuum



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**RUTHLESSLY
AUTOMATE!**



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STEPS

- Automate builds
- Continuous Integration
- Add unit tests
- Automate deployments
- Continuous Delivery
- Add integration tests



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YOUR MOVE



EXERCISE

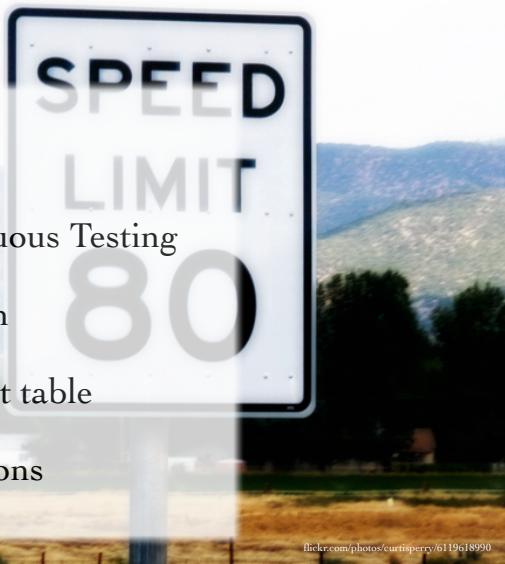
Two 3x5 cards

3 reasons for Continuous Testing

3 barriers to adoption

Pass cards to the next table

Brainstorm on solutions



RESOURCES

JUnit JUnit.org

Jenkins Jenkins-ci.org

BDD Dannorth.net/introducing-bdd

Cucumber Cukes.info

Continuous Deployment en.wikipedia.org/wiki/Continuous_delivery

TIPS

Open standards...

Junit or Junit compatible

Avoid vendor lock in

Glue tools

Time matters....

Fast servers

Incremental change

DEVOPS RESOURCES

VagrantUp.com



GetChef.com/chef

PuppetLabs.com

Ansible.com

ANSIBLE

VirtualBox.org

DATA RESOURCES



Guides.RubyOnRails.org/active_record_basics.html

Liquibase.org

FlywayDB.org

