



Graduating To Jenkins CI For Ruby (-on-Rails) Teams



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Microsoft

- BuildTracker
- Distributed Build System
- Company-Wide SaS
- Lab w/ 400 Machines*

* zomg!

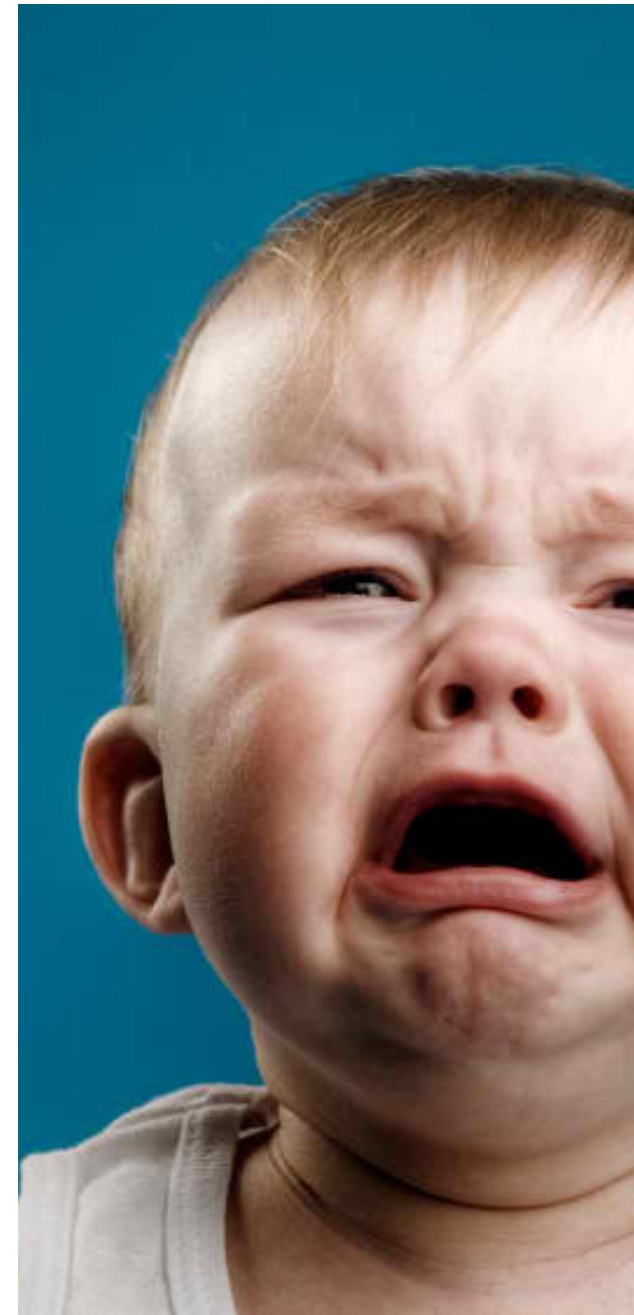


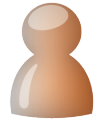


Enterprise Software

- Windows Scheduler*
- CruiseControl Java
- CruiseControl.NET

* zomg?



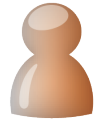


RoR Shop

- CIJoe
- Written in Ruby*
- Tiny Footprint
- One Project

* yay?





Why NOT Jenkins?

- Not Written in Ruby
- We're Too Small
- Written in Java
- Java is Big & Slow
- Too Much Maintenance
- I Just Need One Build
- No ANSI Color Support

We actually didn't try it ...





Running Jenkins for \$19



● “Joe” on Linode’s Smallest Plan

```
useradd -m jenkins -p [password] -s /bin/bash
addgroup jenkins sudo
wget -q -O - http://pkg.jenkins-ci.org/debian/jenkins-ci.org.key | sudo apt-key add -
sudo sh -c 'echo deb http://pkg.jenkins-ci.org/debian binary/ > /etc/apt/sources.list.d/jenkins.list'
sudo aptitude update sudo aptitude install jenkins
change port in /etc/default/jenkins
Manage Jenkins, Configure System, change Jenkins URL
service jenkins restart
```

● Manage Jenkins, Configure System

<http://joe.example.com:9000/>

- Enable Security
- Jenkins Own Database
- Add A User (eg. Joe)
- Matrix-Based Security
- Give Joe Permission to do Everything
- Configure Git Plugin w/ Global Username & Email
- Configure SMTP E-Mail Notification
- Configure Github Web Hook
[http://joe:\[password\]@joe.example.com:9000/github-webhook](http://joe:[password]@joe.example.com:9000/github-webhook)



Plugins



- **Git**

<http://wiki.jenkins-ci.org/display/JENKINS/Git+Plugin>

- **GithubAPI**

<https://wiki.jenkins-ci.org/display/JENKINS/GitHub+API+Plugin>

- **AnsiColor**

<http://wiki.jenkins-ci.org/display/JENKINS/AnsiColor+Plugin>

- **thinBackup**

<https://wiki.jenkins-ci.org/display/JENKINS/thinBackup>

- **ChuckNorris**

<http://wiki.hudson-ci.org/display/HUDSON/ChuckNorris+Plugin>



Ruby/Rails Build Environment

- SSH Key
- Git
- RVM
- Github SSH Access
- Heroku SSH Access





A Project

- New Job
 - FreeStyle Project
 - Configure Github Project
 - Configure Git Repository

- Build Script

```
#!/bin/bash
source ~/.bash_profile
rvm use 1.9.2
gem install bundler
bundle install
bundle exec rake
```





Jenkins Jobs: Dev Build



● Headless Test w/ XVFB

<http://artsy.github.com/blog/2012/05/15/how-to-organize-over-3000-rspec-specs-and-retry-test-failures/>

```
rake test:ci
```

```
namespace :test do
```

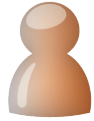
```
  task :specs, [ :display ] => :environment do |t, args|
    ENV['DISPLAY'] = args[:display] if args[:display]
    Rake::Task['spec:suite:all'].invoke
  end
```

```
  task :jasmine, [ :display ] => :environment do |t, args|
    ENV['DISPLAY'] = args[:display] if args[:display]
    system!("bundle exec rake jasmine:ci")
  end
```

```
  task :all, [ :display ] => :environment do |t, args|
    Rake::Task['assets'].invoke
    Rake::Task['test:jasmine'].invoke(args[:display])
    Rake::Task['test:specs'].invoke(args[:display])
  end
```

```
  task :ci do
    Rake::Task['test:all'].invoke("99")
  end
```

```
end
```



Jenkins Job: Deploy



- Deploy to Staging
- Deploy to Production

```
rake deploy:production  
rake deploy:staging
```

```
def system!(cmdline)  
  logger.info("#{Time.now} #{cmdline}")  
  rc = system(cmdline)  
  "failed with exit code #{ $? .exitstatus}" if (rc.nil? || ! rc || $? .exitstatus != 0)  
end  
  
namespace :deploy do  
  task :staging => :environment do  
    system!("bundle exec heroku maintenance:on --app=app-staging")  
    system!("git push git@heroku.com:app-staging.git origin/staging:master")  
    system!("bundle exec heroku maintenance:off --app=app-staging")  
  end  
  
  task :production => :environment do  
    system!("git push git@heroku.com:app-production.git origin/production:master")  
  end  
end
```



Jenkins Job: Cron

- Daily Cron
- Weekly Cron



```
namespace :cron do
```

```
  task :daily => :environment do
```

```
    Rake::Task['db:production:backup'].invoke
```

```
    system!("heroku rake db:delayed_tasks:daily:run --app=app-production")
```

```
  end
```

```
  task :weekly => :environment do
```

```
    Rake::Task['db:production:archive'].invoke
```

```
  end
```

```
end
```

- Jenkins
- New Job
- People
- Build History
- Manage Jenkins
- My Views

ENABLE AUTO REFRESH
 add description

Build Queue
 No builds in the queue.

Build Executor Status

#	Master
1	Idle
aaw.linode.art.sy (offline)	
dblock.linode.art.sy	
1	Idle
qib.linode.art.sy	
1	Building jaghion-gravity #569
slave1.linode.art.sy	
1	Idle
slave2.linode.art.sy	
1	Building dblock-gravity #997
speednoisemovement.linode.art.sy	
1	Idle
steve-the-sieve	
1	Idle

All	Cron	Deployment	Friction	Gravity	Inertia	Mass	Production Builds	Torque	dB's	+
S	W	Name ↓	Last Success	Last Failure	Last Duration					
		aaw-gravity	5 mo 29 days (#122)	4 days 15 hr (#190)	1 hr 26 min					
		alexander-gravity	4 days 15 hr (#181)	7 days 21 hr (#180)	1 hr 56 min					
		craig-torque	2 mo 3 days (#61)	2 mo 3 days (#60)	1 min 6 sec					
		craigspaeth-gravity	7 mo 13 days (#31)	25 days (#51)	1 hr 43 min					
		craigspaeth-inertia	3 mo 8 days (#41)	4 mo 26 days (#37)	1 min 24 sec					
		dblock-gravity	2 hr 24 min (#996)	18 hr (#993)	1 hr 52 min					
		dblock-mass	21 days (#66)	N/A	4 min 9 sec					
		dblock-torque	2 mo 17 days (#1)	N/A	1 min 30 sec					
		deploy-gravity-demo	4 mo 29 days (#10)	N/A	39 min					
		deploy-gravity-production	38 min (#141)	15 hr (#139)	9 min 44 sec					
		deploy-gravity-staging	2 hr 18 min (#559)	16 hr (#556)	1 hr 36 min					
		deploy-inertia-production	20 hr (#37)	N/A	1 min 18 sec					
		deploy-mass-production	6 days 1 hr (#32)	N/A	4 min 30 sec					
		deploy-torque-production	8 days 15 hr (#88)	N/A	1 min 18 sec					
		energy-master	3 mo 16 days (#15)	12 hr (#120)	2 min 33 sec					



Jenkins AnsiColor Plugin



<https://github.com/john-griffin/jenkins-client>

- Eliminate Boring Output

```
Using simple_form (1.3.1) from https://github.com/plataformatec/simple\_form.git (at v1.3.1)
Using spork (0.9.0.rc8) from https://github.com/timcharper/spork.git (at master)
Using steak (2.0.0) from https://github.com/cavalle/steak.git (at master)
Using therubyracer-heroku (0.8.1.pre3)
Using uglifier (1.0.0)
Your bundle is complete! Use `bundle show [gemname]` to see where a bundled gem is installed.
+ bundle exec rspec spec
```

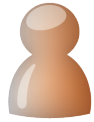


Jenkins-Client Ruby Gem

<https://github.com/john-griffin/jenkins-client>

- Start a Job
- List Builds
- Contribute!






Chuck Norris Says



Post-build Actions

- Activate Chuck Norris
-  When a bug sees Chuck Norris, it flees screaming in terror,

art.sy: <http://art.sy>

twitter: [@dblockdotorg](https://twitter.com/dblockdotorg)

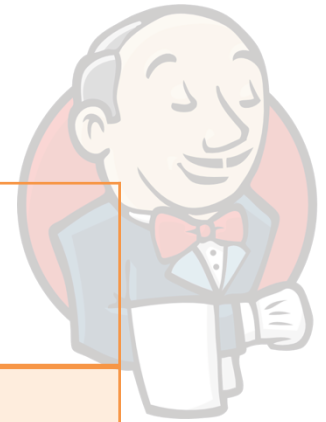
blog: <http://code.dblock.org>






email: dblock@dblock.org

slides on slideshare: <http://slideshare.net/dblockdotorg>



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