DevTools at Etsy

Daniel Schauenberg
dschauenberg@etsy.com
@mrtazz

Etsy

Monolithic App

Item by FrankelPhotos

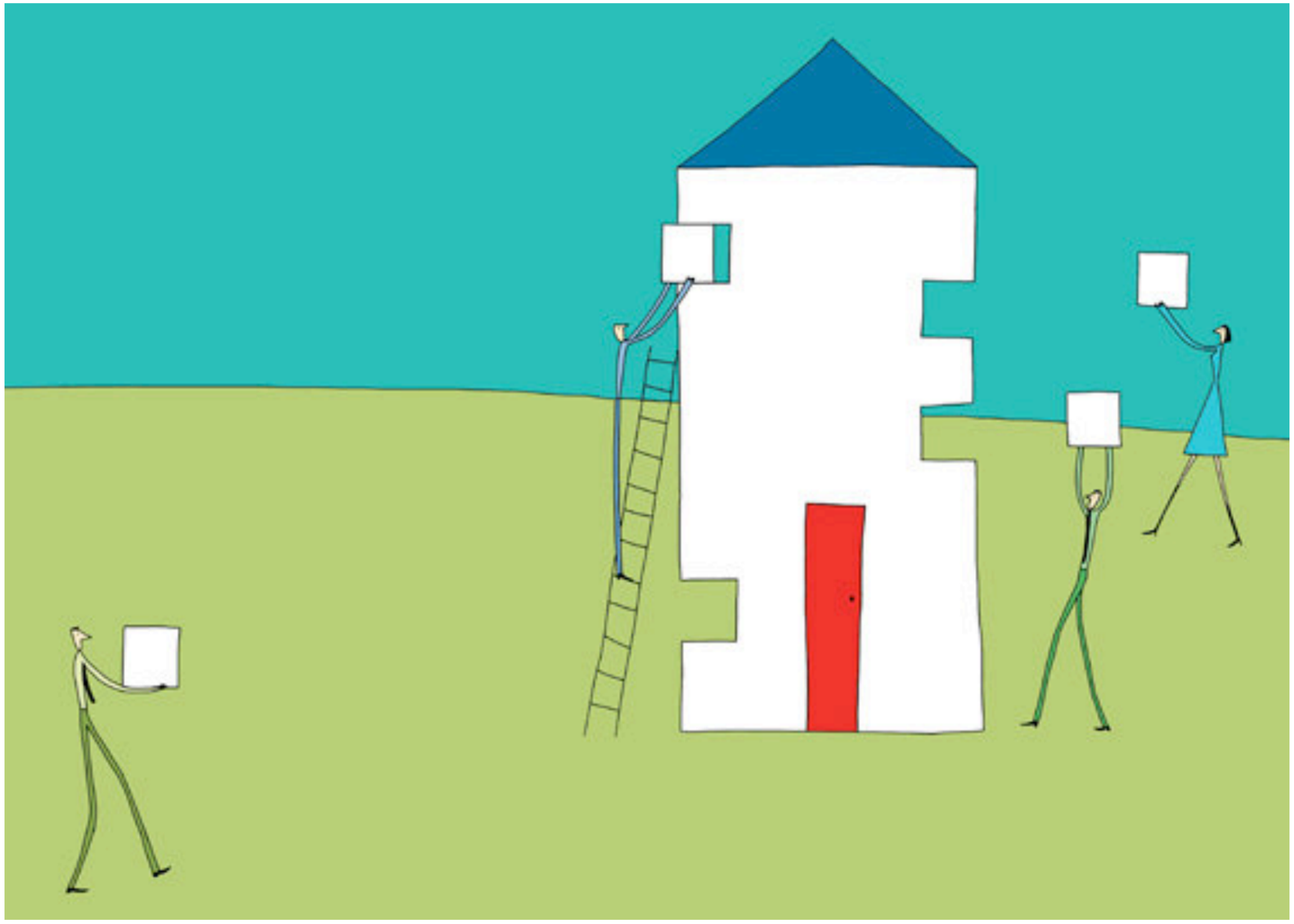
40 deploys/day

150 committers

~150 Developers/Designers

~15 Ops Engineers

TireDiscounters
FAMILY OWNED
SHUTUP
NO
YOU SHUTUP



Item by JustBeckett

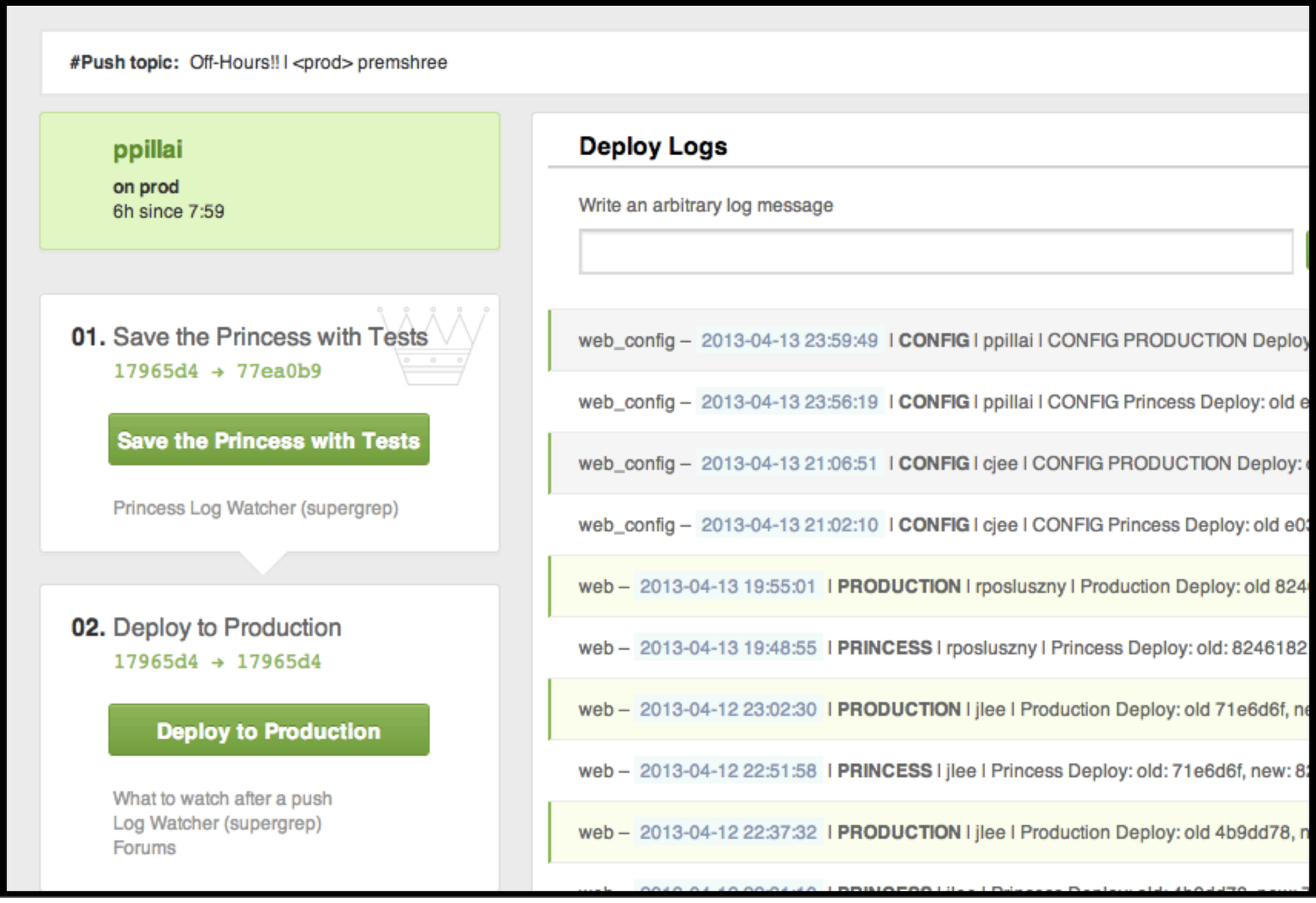
Item by XDcreationz

DevTools

- Part of the Infrastructure team
- 5 Engineers
- SysAdmin and Development background
- <3 debugging

IRC bots
Post Mortem Tools
IRC Search
StatsD
Dev DB Proxy

Deployinator



```ruby
def foo_production(options={})
  # update code
  git_freshen_or_clone("foo", stack_config[:host],
                       stack_config[:checkout_root], "master")
  # bump version
  git_bump_version(stack, "", stack_config[:host],
                       File.join(stack_config[:checkout_root], stack))
  # announce
  log_and_shout(:old_build => environments[0][:current_build].call,
                :build => environments[0][:next_build].call)
end
```

"Devtools makes this stuff so easy it's almost hilarious, so thank you!"

Laurie Denness, 2013

https://github.com/etsy/deployinator

Developer VMs

- KVM
- Dev version of full Etsy stack
- Chef
- DevTools

Jenkins Slaves a.k.a. The Bobs

- LXC containers on buildtests
- Used for CI and Try
- Labels for heavy/any execution
- One heavy executor per disk

VIRTUAL MADNESS

MAIN LOCATE CREATE MOVE IMAGES JENKINS GRAPHS DELETE

Create a virtual guest!

Type: Dev VM

Guest name: dschauenberg User: dschauenberg Base Role: VMBase

Target Virtual Host: virt10 Size: normal Environment: development Version: cent6 Search: MAKE IT

(p.s. if user is left blank, it defaults to hostname)

DevDB Proxy

- Access production data in a safe way
- Don't test and develop on outdated data
- Don't bring the site down by connecting to a production server with a GUI db client

StatsD/Logster/Graphite

https://github.com/etsy/statsd
https://github.com/etsy/logster
https://github.com/etsy/dashboard

Supergrep

Guide | Legend | Clear Log

∫upergrep++

switch to supertop

web0233 : [Sun Apr 14 05:53:51 2013] [V_3ZdPjqcBn4eoG--f5XQ_vnyM2p] [error] [ClientLogger] [phplib/Logger.php:146] [0] Uncaught TypeError: Object

web0214 : [Sun Apr 14 05:53:17 2013] [Kn3n-_Z-jeZKIQauFdYuoo_feMtf] [error] [ClientLogger] [phplib/Logger.php:146] [0] ReferenceError: Can't f

web0220 : [Sun Apr 14 05:52:39 2013] [noAr-ypvhyb-WJg9DzO0UyGiXt0I] [error] [ClientLogger] [phplib/Logger.php:146] [0] Object required:url="http:/

web022B : [Sun Apr 14 05:52:04 2013] [nMSJOCftHi138TaUXUFjwjV2292M] [error] [ClientLogger] [phplib/Logger.php:146] [0] Unable to get property &#39

web0241 : [Sun Apr 14 05:52:03 2013] [nMSJOCftHi138TaUXUFjwjV2292M] [error] [ClientLogger] [phplib/Logger.php:146] [0] Unable to get property &#39

web0241 : [Sun Apr 14 05:50:59 2013] [oAX76yKes0kolFvmvivnqQ5DL8X4] [error] [ClientLogger] [phplib/Logger.php:146] [5668581] Tried decoding the UR

web0222 : [Sun Apr 14 05:50:57 2013] [c9s9Bu9ZcA0UA28speFYqzKTkjDu] [error] [ClientLogger] [phplib/Logger.php:146] [0] 缺少 ':':url="http:/

https://github.com/etsy/supergrep

Schema Changes

- Sharded MySQL Master-Master pairs
- Config file to control which sides to use
- 4 config pushes
- Artisanal shell script

Schemanator Changesets Side Splitter Status Log Monitor Graphs Verify [Admin]

Running: line feed test Part 1 of 2 | Part 1 { Preflight Check → Pull Sides → Check Graphs → Watch SQL → Replace Sides → Check Graphs } Part 2

Nagios Has Issues

DEVMYSQL02.NY4DEV
1. In a period of scheduled downtime.

DEVMYSQL03.NY4DEV
1. In a period of scheduled downtime.

Shard Config Status

Last updated:
Fri, 09 Nov 12 13:29:36 -0500

Etsy_aux

A	B

Etsy_index

A	B

Tickets

A	B

Etsy_shard

001_A	001_B
002_A	002_B
003_A	003_B

Giftcards

A	B

Gearman

Gearman

Useful Links

Nagios: Home
Nagios: Slave Lag Group
Nagios: Downtime
nagLite
Dashboard: MySQL Selects
Dashboard: Slave Lag

Preflight Check: line feed test part 1 of 2.

For this part, I need to pull out the following servers from the ORM:

etsy_shard_001_A, etsy_shard_002_A, etsy_shard_003_A, etsy_shard_004_A, etsy_shard_005_A, etsy_shard_006_A, etsy_shard_007_A, etsy_shard_008_A, etsy_shard_009_A, etsy_shard_010_A, etsy_shard_011_A, etsy_shard_012_A, etsy_shard_013_A, etsy_shard_014_A, etsy_shard_015_A, etsy_shard_016_A, etsy_shard_017_A, etsy_shard_018_A, etsy_shard_019_A, etsy_shard_020_A, etsy_shard_021_A

Do it: Pull those sides out

Bail Out

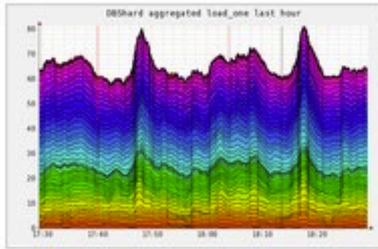
Scheduled Downtime in Nagios

30 minutes starting now.

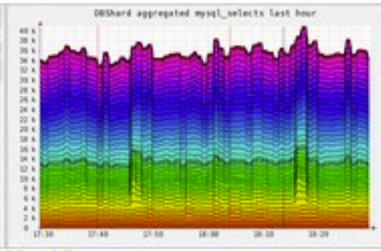
Here are your preflight metrics:

AGGREGATE GRAPHS FOR ETSY_SHARD

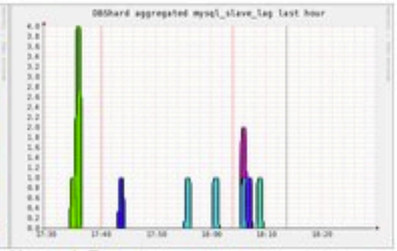
Load One



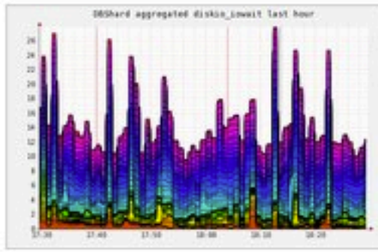
Mysql Selects



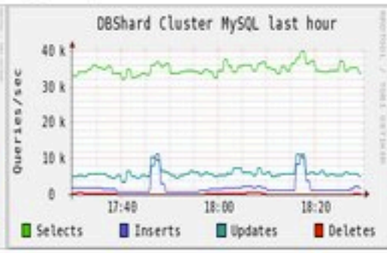
Slave Lag



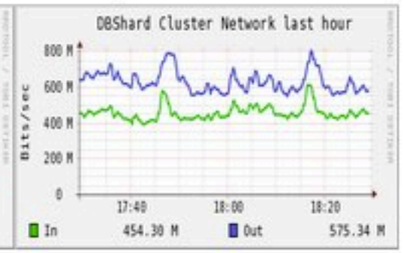
Disk IO Wait



Mysql Report



Network Report



MYSQL STATUS (POLLED EVERY 2 SECONDS)

Host	sLag	tCon	tRun	Con Δ	Host	sLag	tCon	tRun	Con Δ
etsy_shard_001_A	na	4	1	3	etsy_shard_001_B	na	4	1	4
etsy_shard_002_A	na	2	1	3	etsy_shard_002_B	na	2	1	3
etsy_shard_003_A	null	2	1	2	etsy_shard_003_B	null	2	1	4

% review -r dschauenberg

wgallego opened this pull request 24 days ago

Edit

pecl 1.1.1 and libgearman 1.0.2 will go out on all Cent6 boxes

dschauenberg is assigned

No milestone

pecl 1.1.1 and libgearman 1.0.2 will go out on all Cent6 boxes

automatically assigned

2 participants

Open

+ 5 additions

- 13 deletions

wgallego added a commit 24 days ago

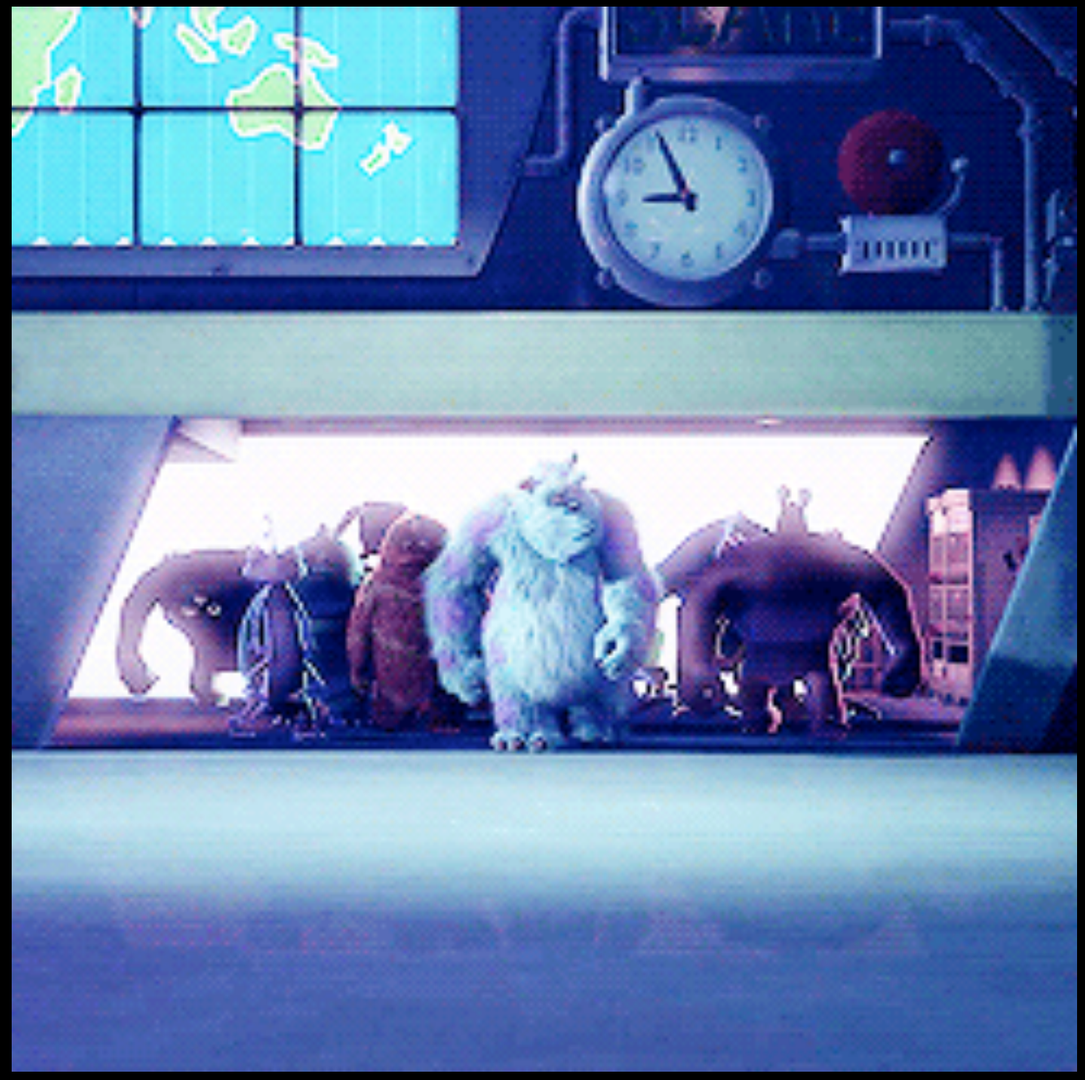
wgallego `Creating review: pecl 1.1.1 and libgearman 1.0.2 will go out on all C…` ··· `203dc03`

dschauenberg commented 24 days ago

lgtm

```
dschauenbe+| avleen: we are also upgrading api02-05
     keyur | ?nag down api0[2-5].ny4
    irccat | api02.ny4 has been scheduled for 60 minutes of downtime
    irccat | api03.ny4 has been scheduled for 60 minutes of downtime
    irccat | api04.ny4 has been scheduled for 60 minutes of downtime
    irccat | api05.ny4 has been scheduled for 60 minutes of downtime
    avleen | ok :)
```

The "DevOps" Team



NOPE

John Goulah
@johngoulah

Follow

dev tools at @etsy was formed by a series of hacks that helped people get things done quicker. If this sounds interesting we're hiring!

Reply Retweet Favorite More

```
export PATH=$PATH:~/development/DevTools
```

Summary

- Fostering collaboration through tooling
- Tools can increase but not force collaboration
- Caretaker for tooling
- Hug it out

codeascraft.etsy.com
www.etsy.com/codeascraft/talks
etsy.github.com
www.etsy.com/careers

Questions?

DevTools at Etsy

Daniel Schauenberg
dschauenberg@etsy.com
@mrtazz