

Haydle Treasure Trove

*20 Tools that Turbo Charge the
Haydle Dev Team*

2014 Edition

Haydle

Haydle

Ask. Answer. Rate. Retain.



What is Haydle?

- An enterprise question and answer system
 - Like a private StackOverflow for organizations
- Captures undocumented knowledge that is normally lost in email or stuck in people's heads
- <http://haydle.com>
- Small team - we depend on good tools!

Haydle Stack

- Ruby 2.1.x, Rails 3 (4 coming!)
- Amazon AWS (EC2, ELB, RDS, SES, etc)
- Chef
- Puma
- PostgreSQL (Amazon RDS)
- Elastic Search
- Redis
- Sidekiq
- Unix philosophy "do one thing & do it well"

Haydle

Cool Stuff We Use

1. Elastic Search
2. Sidekiq/Redis
3. Chef
4. Vagrant
5. Statamic
6. Logstash/Kibana
7. Flowdock
8. Trello
9. New Relic
10. MixPanel
11. Code Climate
12. Elastic Load Balancer
13. Route 53
14. Bootstrap
15. Haml / Sass
16. MiniTest/Capybara
17. Browser Stack
18. Gemnasium
19. AlertLogic
20. iDoneThis

Flowdock - flowdock.com

What It Does

- team based chat / messaging
- integrates third party services
- notifies the team of events
 - new deployments
 - new commits
 - new bugs
 - Twitter feeds

Why We Picked It

- enables distributed and async teamwork
- everyone is kept "in the loop"
- historical conversation database
- less email (happy++)

Haydle

> Inbox

Type to search ..



 8d351ee Missing a template symbol
 389482d Change some default knife....
 cheapRoc 3 days ago • 23 more commits • haydle-chef • master • [GitHub](#)

 Added Justin Reagor to card "New Re...
 Justin Reagor 3 days ago • Justin Reagor • ProdDev Current • Haydle • [Trello](#)

 Updated description of card "New Relic sysmond cookbook (system d...
 New Relic sysmond cookbook (system d...
 Justin Reagor 3 days ago • ProdDev Current • Haydle • [Trello](#)

 Added card "New Relic sysmond cook...
 Justin Reagor 3 days ago • ProdDev Current • Haydle • [Trello](#)

 8d351ee Missing a template symbol
 389482d Change some default knife....
 cheapRoc 3 days ago • 23 more commits • haydle-chef • secure-tokens • [GitHub](#)

 AngularJS + Productivity Tools Tech T...
 Everyone, On Wednesday at 6:45pm Ke...
 Joel Confino 3 days ago

 Chef @chef
 Chef+Azure=Awesome. Wed June 4th
pages.getchef.com/chefazurewebin...
 2 days ago • [Twitter](#)

 **Joel** I like it

Joel Hopping on Skype now

Justin sure

Justin hey **@Peter** in order to test a decorator that has dependencies on external helpers Draper::ViewHelpers`` within your UnitTest class
 basically what I just had to do under the branch I'm working off of

Peter ok, tx

Monday, March 31

Peter What directory should the non-ActiveRecord class (that the Stats service returns)

 **Justin** app/services?

 **Peter** ok

Justin if it's used by other models, thus in the model domain, then it goes in app/models

Tuesday, April 1

 **AOK** It's easy to see why the seed generator yields strange data in each of the ways er created ahead of questions. It's not obvious to me how that is happening. It looks

```
question_data['answers'].each_with_index do |answer_data, index|
  answer = question.answers.build body: answer_data['body']
  ...
  answer.created_at = question.created_at + rand(999999)
  answer.save
end
```

Elastic Search - elasticsearch.com

What It Does

- search (lucene based), faceting
- scale - distributed, replicated, auto rebalance
- it is a schemaless document db

Why We Picked It

- dirt simple to get started with
- highly customizable
- use it like a read cache / doc db
- great Ruby API on top of REST API

Trello - trello.com

What It Does

- organize lists of cards in boards
- use for kanban, scrum, flexible
- lean project management

Why We Picked It

- great for distributed teams
- real-time interface
- the "big picture"
- answers the question, "What are you working on?"

Haydle

Trello

Boards | Boards | Search | + JC Joel Confino | Show sidebar

ProdDev Current Hayde | Org Visible

To Do

- Install new Threat Manager agent on EC2 instances A 2 E 0/3
- Enable new Threat Manager nodes in AlertLogic interface A 2 E 0/3
- Init fail2ban on stage A 1 E 0/3
- Review Mike's image size reduction PR. A 1 E 0/3
- Clean up git tags/branches
- Delete old orgs
- Some feature notes for The Trail A 1 E 0/2
- Review Teams specs A 1 E 0/2

In Progress

- Touch up seed data generator A 1 E 1/4
- Graphs for Hayde A 1 E 0/3
- Fire up some new web boxes A 2 E 0/3
- New Relic sysmond cookbook is just plain borked A 1 E 0/3
- Upgrade chef-client A 1 E 2/4
- Conf SSL client auth for Kibana A 1 E 0/3
- Update the Trail with feedback from the teams walk through A 1 E 0/3

Peer Review

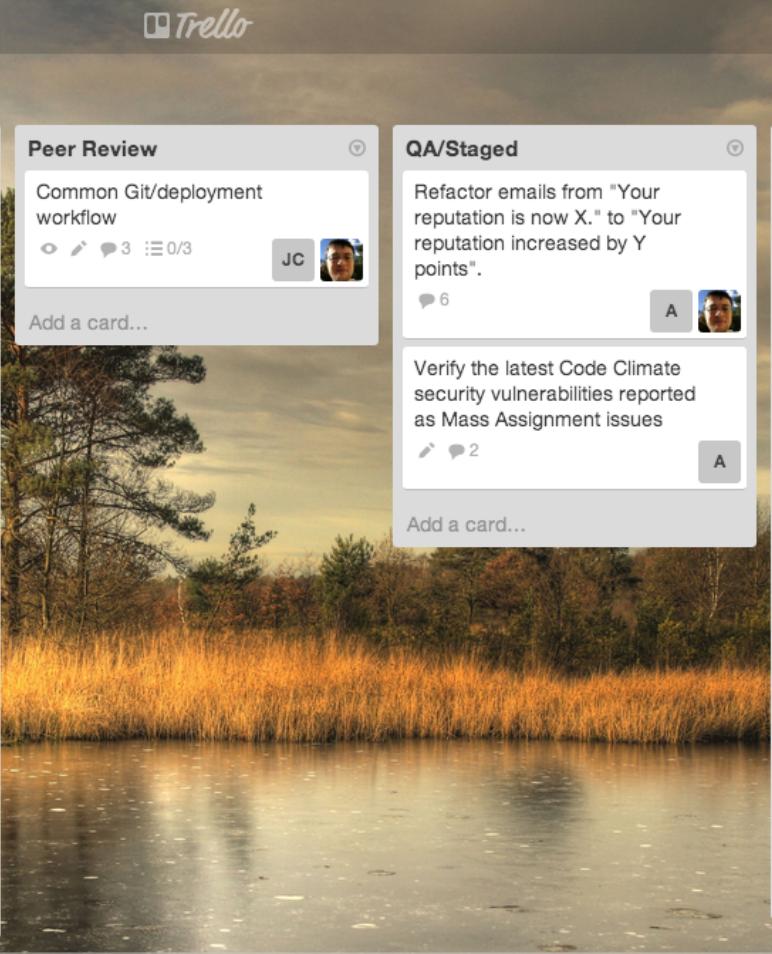
- Common Git/deployment workflow A 3 E 0/3

QA/Staged

- Refactor emails from "Your reputation is now X." to "Your reputation increased by Y points". A 6 E 0/3
- Verify the latest Code Climate security vulnerabilities reported as Mass Assignment issues A 2 E 0/3

Ship It! [1.8.3]

- Upgrade New Relic agent gem E 2/2
- Moving haydle-qa tokens to environment variables and into encrypted Chef storage. E 4/4
- Deployment changes and upgrade Capistrano 3 E 15/15
- Finish grok patterns for logs A 1 E 0/3
- Update chef recipes for log stash A 1 E 0/3
- Deploy log stash to stage A 1 E 0/3



Add a card...

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Chef - getchef.com

What It Does

- automated infrastructure provisioning
- configuration management
- software versioning
- hosted off-site by Chef (Opscode)

Why We Picked It

- it's all Ruby
- repeatable
- zero maintenance
- better security (runs constantly)
- faster operations & deployment
- leverages the community

Haydle

[Nodes](#)[Reports](#)[Policy](#)[Administration](#) [haystac](#)

Showing All Roles

Name	Description	Environment
base	Base system for all nodes	_default, hays
db	Database service with applic...	_default, hays
search	Search indexing and service	_default, hays
log	Log server and search service	_default, hayd
cache	Background queue, cache, a...	_default, hays
web	Application service for web h...	_default, hays
batch	Batch processing via backgr...	_default, hays

The logo for Haydle, featuring the word "Haydle" in a large, blue, sans-serif font.

Statamic - statamic.com

What It Does

- “flat file” cms
- PHP runtime
- uses markdown for formatting
- easily version files in Git

Why We Picked It

- better way to document requirements
- enjoyable to work with
- requirements are versioned along with code (traceability)

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The Trail

[Domain](#) [Story](#) [Map](#) [Profile](#)

[Home \(on the Range\) »](#)

Home (on the Range)

Hey everyone

The Trail is the narrative of Haydle. It is requirements document to be sure, but not a traditional one.

“No memory is ever alone; it’s at the end of a trail of memories, a dozen trails that each have their own associations.”

— Louis L’Amour

[Domain](#)
[Story](#)
[Map](#)
[Profile](#)

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New Relic - newrelic.com

What It Does

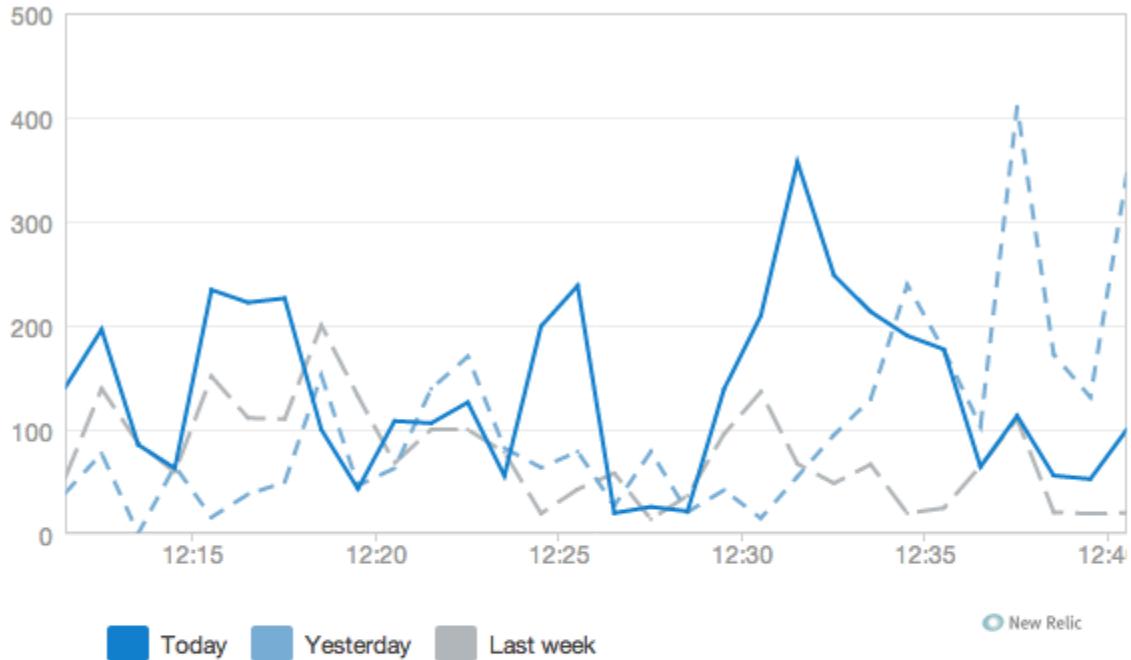
- application monitoring
- service/system monitoring
- user monitoring
- database query pain points
- error notifications and alerts

Why We Picked It

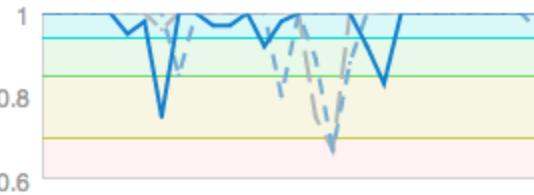
- a Rails developer's best friend
- real-time monitoring of performance issues
- helps fine tune application down to the query and method level

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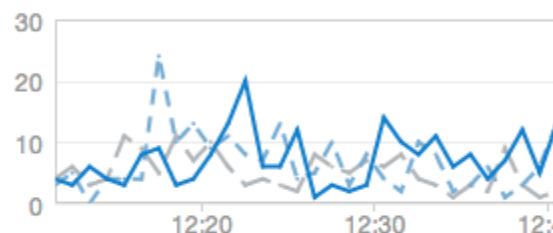
App server historical average response time (ms)



Historical Apdex score



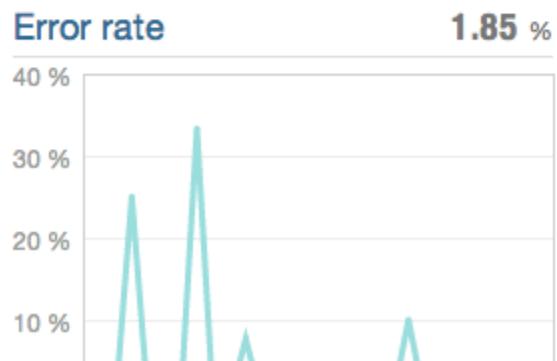
Historical throughput (rpm)



Transactions

	App server time
LeaderboardController#index	2,560 ms
Transaction traces:	2.6 s
QuestionsController#show	471 ms
Transaction traces:	n/a
QuestionsController#index	250 ms
Transaction traces:	n/a

Error rate



1.85 %

Recent events

Member of policy Haydle
All 🔥 📧 ⚪ 🔍 ⚡ <>
⚙️ 💬
YESTERDAY

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Route 53 - aws.amazon.com/route53/

What It Does

- DNS host
- tight integration with EC2
- security group based load balancer configuration
- can use root domain for static S3 sites (<http://mystuff.com>)

Why We Picked It

- aliases root domain to Elastic Load Balancer pool
- simple to use

Route53

Route 53: haydle.com ▶ Record Sets

Back to Hosted Zones Create Record Set Delete Record Set

Search: Any Type Aliases Only Weighted Only 1 to 12 of 12 Record Sets

	Name	Type	Value	Evaluate Target	Health
<input type="checkbox"/>	haydle.com.	A	173.255.202.5	-	-
<input type="checkbox"/>	haydle.com.	MX	1 ASPMX.L.GOOGLE.COM. 5 ALT1.ASPMX.L.GOOGLE.COM. 5 ALT2.ASPMX.L.GOOGLE.COM. 10 ASPMX2.GOOGLEMAIL.COM. 10 ASPMX3.GOOGLEMAIL.COM.	-	-
<input type="checkbox"/>	haydle.com.	NS	ns-1021.awsdns-63.net. ns-1556.awsdns-02.co.uk. ns-1192.awsdns-21.org. ns-330.awsdns-41.com.	-	-
<input type="checkbox"/>	haydle.com.	SOA	ns-1021.awsdns-63.net. awsdns-hostmaster.amazon.com. 2021010100 2419200 3600 604800 86400	-	-
<input type="checkbox"/>	*.haydle.com.	A	173.255.202.5	-	-
<input type="checkbox"/>	calendar.haydle.com.	CNAME	ghs.googlehosted.com	-	-
<input type="checkbox"/>	chariot.haydle.com.	A		No	-
<input type="checkbox"/>	docs.haydle.com.	CNAME	ghs.googlehosted.com	-	-
<input type="checkbox"/>	mail.haydle.com.	CNAME	ghs.googlehosted.com	-	-
<input type="checkbox"/>	qa.haydle.com.	A		No	-
<input type="checkbox"/>	*.qa.haydle.com.	A		No	-
<input type="checkbox"/>	www.haydle.com.	CNAME	haydle.com	-	-

CodeClimate - codeclimate.com

What It Does

- hosted software metrics for Ruby applications
- tracks technical debt
- faster code reviewing
- raises developer awareness

Why We Picked It

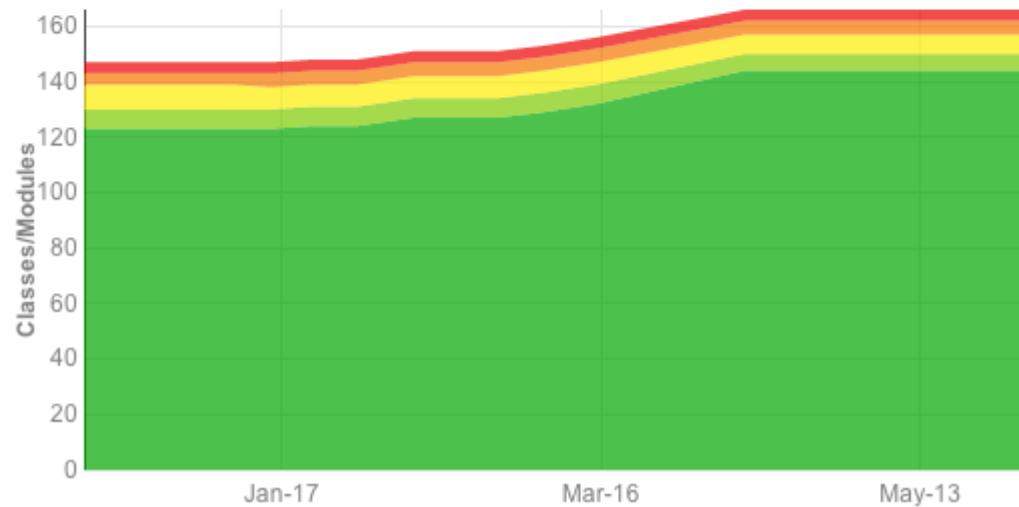
- great for distributed teams
- integrates with Github
- helps keep code simple and clean
- tracks complexity, duplication, security issues

Haydle

3.17

Quality GPA

Breakdown Over Time



Elastic Load Balancer - aws.amazon.com/elasticloadbalancer/

What It Does

- distributes incoming requests to backend application instances
- tight integration with EC2
- security group based configuration
- can terminate SSL

Why We Picked It

- dynamically provisions external IP addresses through Route 54
- simple to use
- less SSL overhead

Elastic Load Balancer

1 Load Balancer selected

Load Balancer: haydle

Description Instances Health Check Security **Listeners**

The following listeners are currently configured for this load balancer:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port	Cipher	SSL Certificate
HTTP	80	HTTP	80	N/A	N/A
HTTPS (Secure HTTP) <input type="button" value="▼"/>	<input type="text" value="443"/>	HTTP <input type="button" value="▼"/>	<input type="text" value="80"/>	Change	Select

You need to specify an SSL certificate for HTTPS or SSL listeners. Specifying a cipher policy is optional. A default policy will be us

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Sidekiq - sidekiq.org

What It Does

- framework for background job processing
- lightweight workers (threads!)
- separate queues and priorities
- sweet Sinatra web interface

Why We Picked It

- uses Redis, hey, we use Redis!
- off loads app servers of async work; move app users along
- we can support recurring tasks
- wrap logic around jobs (single worker can queue more jobs) **Haydle**

Sidekiq

Sidekiq Pro

Dashboard

Workers

Queues

Retries

Scheduled

Batches

Status



Live Poll

212

Processed

34

Failed

0

Busy

0

Scheduled

15

Retries

107

Enqueued

Batches

Started	Description	Job Count	Pending	Failed	Status
6 minutes ago		100	12	12	<div style="width: 80%; background-color: green;"></div> <div style="width: 10%; background-color: red;"></div>
5 minutes ago	Something here	100	10	10	<div style="width: 90%; background-color: green;"></div> <div style="width: 10%; background-color: red;"></div>
less than a minute ago	Scrape for User 739345	100	100	0	<div style="width: 100%; background-color: orange;"></div>

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Vagrant - vagrantup.com

What It Does

- provisions developer VMs
- specify what you want installed in a single file in your project
- wrapper around VirtualBox and Chef (or lots of things)

Why We Picked It

- great way to test Chef recipes
- keeps all devs on same versions of dependencies like Elastic Search
- easily on-board new devs
- tweak/iterate dev environment

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Vagrantfile:

```
Vagrant.configure("2") do |config|  
  
  config.vm.define "haydle-dev" do |haydle|  
    haydle.vm.hostname = "haydle-dev"  
    haydle.vm.box = "precise64"  
  end  
  
  config.vm.provision :chef_solo do |chef|  
    chef.add_recipe "haydle-dev::default"  
  end  
end
```

recipes/default.rb:

```
include_recipe "build-essential"

include_recipe "apt"
include_recipe "openssl"
include_recipe "sqlite"
include_recipe "git"
include_recipe "nfs::server"
include_recipe "fuse"

include_recipe "haydle-dev::database"
include_recipe "haydle-dev::application"
include_recipe "haydle-dev::cache"
include_recipe "haydle-dev::search"
```

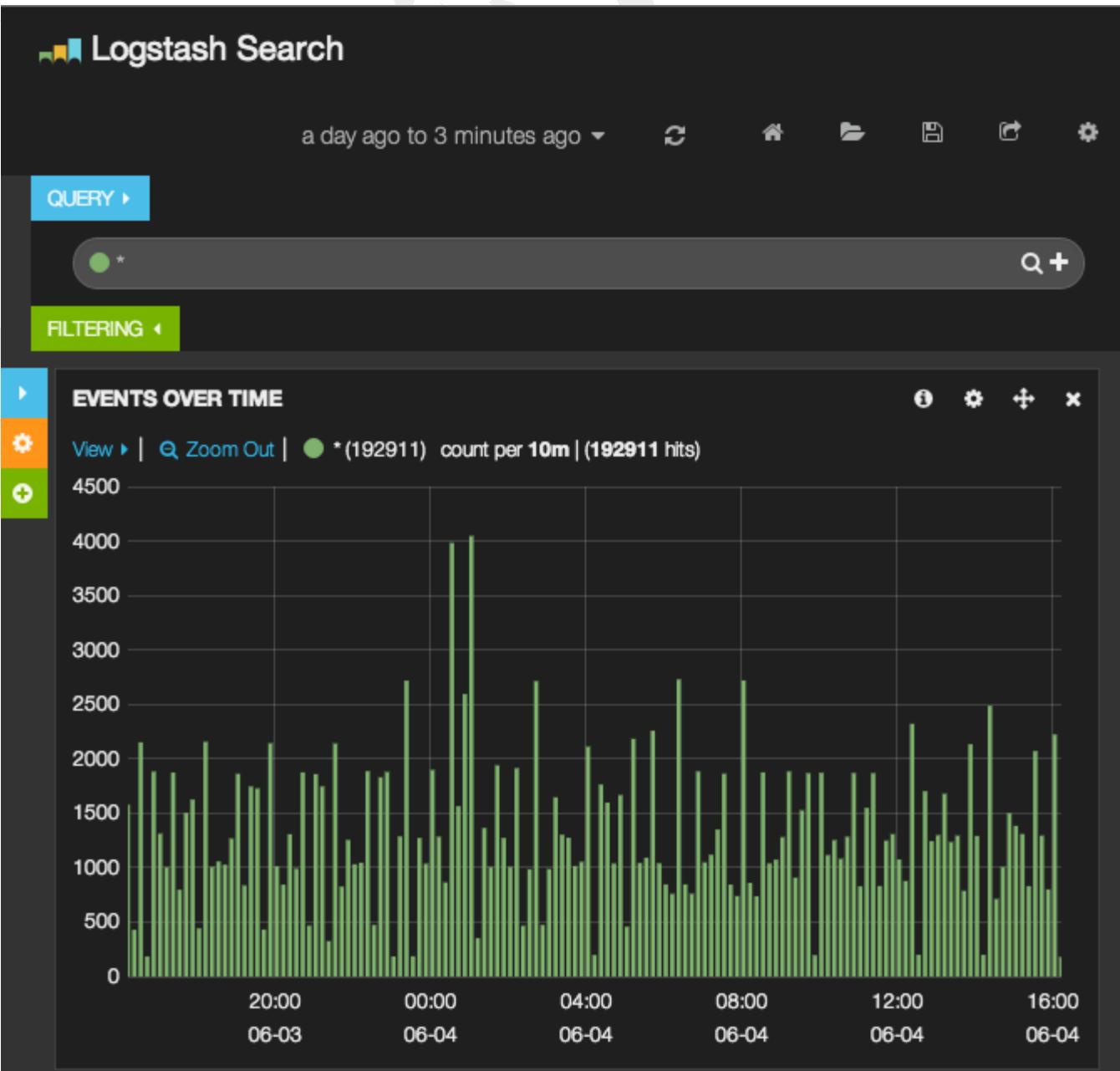
Logstash / Kibana - <http://logstash.net/>

What It Does

- Aggregates logs from all servers
- Provides a nice query interface to quickly find, filter, and analyze log message

Why We Picked It

- Built on top of ElasticSearch
- OSS
- Free, competes with commercial products like Splunk



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Twitter Bootstrap -

twitter.github.com/bootstrap

What It Does

- front-end framework for fast web development
- standardizes CSS
- provides JS widgets
- grid based layouts

Why We Picked It

- off loads up front design considerations
- fast feature turn around
- standardization of best practices

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[Bootstrap](#)[Getting started](#)[CSS](#)[Components](#)[JavaScript](#)[Customize](#)

Tabs

Note the `.nav-tabs` class requires the `.nav` base class.

EXAMPLE

Home Profile Messages

```
<ul class="nav nav-tabs">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Profile</a></li>
  <li><a href="#">Messages</a></li>
</ul>
```

Haml & Sass - haml.info / sass-lang.com

What It Does

- Haml: HTML abstraction language
- Sass: CSS abstraction language
- clean syntax and reusability

Why We Picked It

- rapid template development
- standardizes on clean syntax
- integrates with the Rails Asset Pipeline
 - framework for web asset packaging and management

Haml

```
%table
%tr
  %th Name
  %th Age

- people.each do |person|
  %tr
    %td= person.name
    %td= person.age
```

HTML

```
<table>
  <tr>
    <th>Name</th>
    <th>Person</th>
  </tr>
  <tr>
    <td>Joel</td>
    <td>21</td>
  </tr>
</table>
```

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BrowserStack - browserstack.com

What It Does

- live, web-based browser testing
- instant access to all desktop and mobile browsers
- Can tunnel to view local servers on BrowserStack

Why We Picked It

- Supporting many browsers is a business requirement
- Local VMs are a pain



BrowserStack

Quick start

Test a public URL

Test an internal URL

<https://mercury.haydle.test>

Favorites: IE 8.0 7 | IE 9.0 7 | IE 8.0 XP | Chrome 32.0 MAV

Windows 7

IE 8.0

Start testing

Desktop

Windows XP

Windows 7

Windows 8

Windows 8.1

OS X Snow Leopard

OS X Lion

OS X Mountain Lion

OS X Mavericks

Mobile & Tablet Emulators

iOS Mobile Safari

Android Android Browser

Opera Mobile Multiple Platform

MixPanel - mixpanel.com

What It Does

- track what your users are doing on your site; actions vs page views
- advanced analytics platform
- example: graph the conversion rate of people who went to the new homepage then clicked the signup button

Why We Picked It

- we need to know exactly how our customers are using Haydle
- better than Google Analytics
- free tier gets you started

Haydle

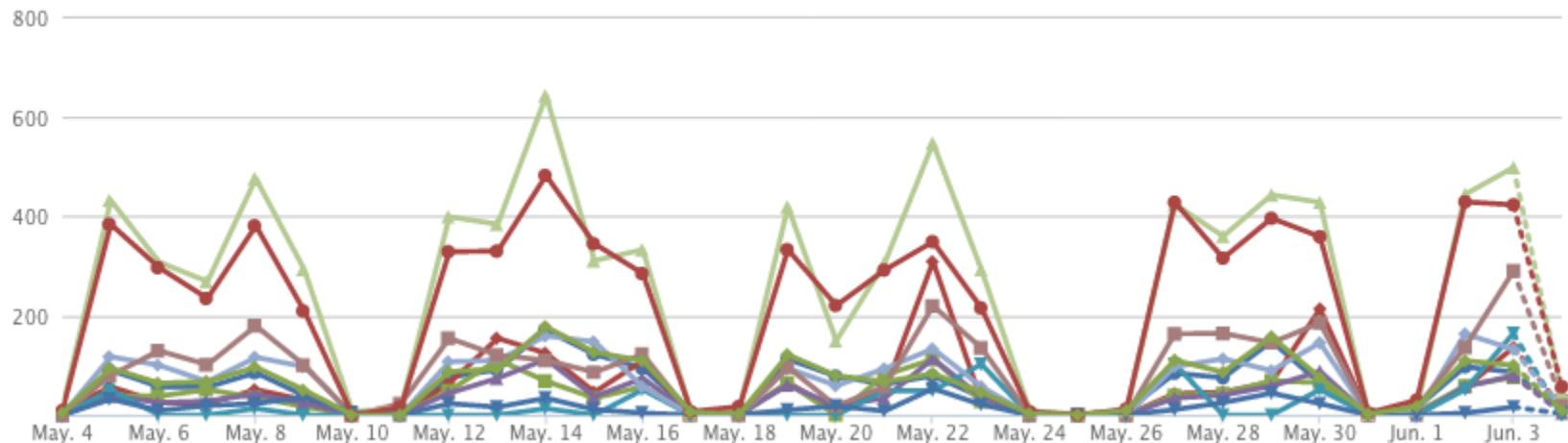
MixPanel

May 4, 2014 - Jun 4, 2014 ▾

Day ▾

Total ▾

More ▾



People	Months later										
		1	2	3	4	5	6	7	8	9	10
Jun 9, 2013	16	31.25%	43.75%	25.00%	37.50%	25.00%	25.00%	31.25%	18.75%	31.25%	31.25%
Jul 1, 2013	35	37.14%	40.00%	34.29%	31.43%	31.43%	34.29%	31.43%	11.43%	31.43%	25.71%
Aug 1, 2013	54	20.37%	25.93%	14.81%	20.37%	27.78%	18.52%	16.67%	16.67%	16.67%	0.00%
Sep 1, 2013	75	25.33%	12.00%	16.00%	16.00%	13.33%	13.33%	10.67%	8.00%	0.00%	
Oct 1, 2013	103	25.24%	23.30%	22.33%	18.45%	16.50%	18.45%	8.74%	0.00%		
Nov 1, 2013	70	25.71%	21.43%	25.71%	18.57%	20.00%	17.14%	0.00%			
Dec 1, 2013	68	32.35%	25.00%	22.06%	20.59%	19.12%	0.00%				

Gemnasium

- What It Does
- checks the versions of all your gems (dependencies) to make sure you aren't using a version with a known security flaw
 - can integrate with your build

- Why We Picked It
- we care a lot about security!
 - easy to integrate



DEVISE

[GEMS](#) > [DEVISE](#) > [VERSIONS](#)

ALL 126 VERSIONS

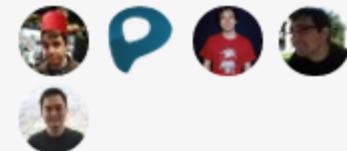
<i>Version</i> ▲	<i>Release date</i> ▲	
3.2.4	March 17, 2014	
3.2.3	February 20, 2014	
3.2.2	November 25, 2013	
3.2.1	November 13, 2013	
3.2.0	November 06, 2013	
3.1.2	November 13, 2013	

LATEST STABLE
3.2.4

AUTHORS

José Valim, Carlos Antônio

OWNERS



TOTAL DOWNLOADS
7,741,736

FIRST RELEASE
Over 4 years ago

LAST RELEASE
3 months ago

Capybara

- What It Does
- acceptance testing for web apps
 - Ruby
 - abstraction on top of Selenium or RackTest drivers

- Why We Picked It
- automated regression testing
 - mature framework
 - readable tests
 - we don't have time for constant manual regression testing

```
describe "the login process", :type => :feature do
  it "signs me in" do
    visit '/sessions/new'
    within("#session") do
      fill_in 'Login', :with => 'user@example.com'
      fill_in 'Password', :with => 'password'
    end
    click_link 'Sign in'
    expect(page).to have_content 'Success'
  end
end
```

iDoneThis

- What It Does
- each evening sends each team member an email asking what you accomplished
 - each morning sends out an email of team activity the prior day

Why We Picked It

- eliminated our daily standup
 - THAT IS HUGE!
- easy to use - just reply to the email
- keeps a log of everything we've done

Haydle

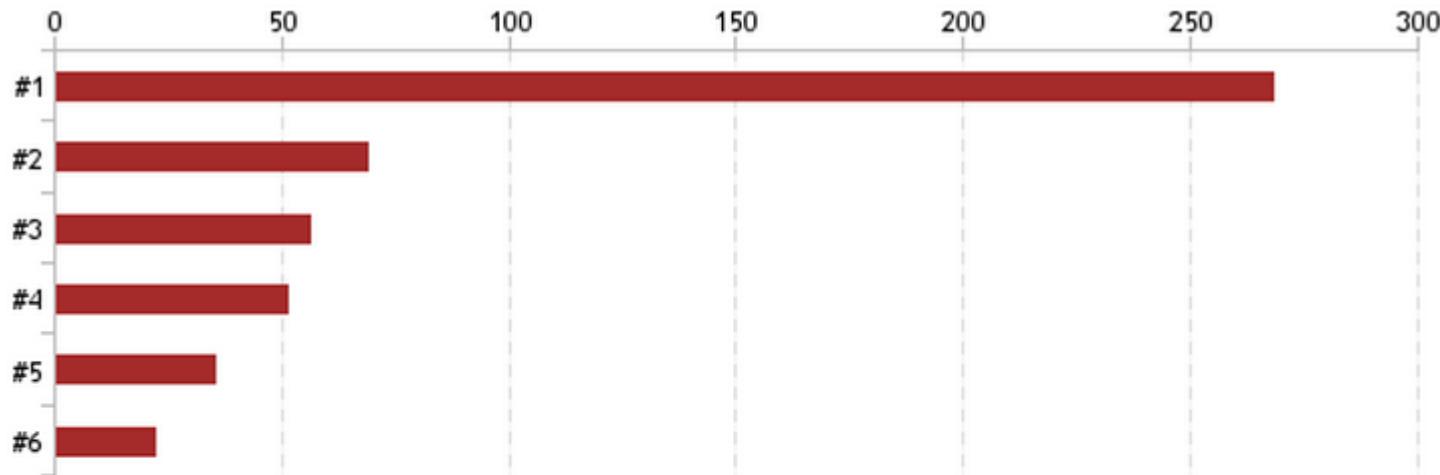
The figure is a word cloud centered around the words "marketing", "planning", "email", "work", "follow", "cookbook", and "up". The size of each word indicates its frequency or importance. The words are color-coded in shades of blue.

- Marketing Planning:** convergence, ensured, wrote, double, merged, gm, blow, upcoming, proddev, pseg, qaed, existing, left, writing, today's, release, month, hubspot, emails, case, box, ups, stage, pass, sales, now, dev, tests, added, cases, meeting, out, learning, mashery/intel, roll, laptop, version, workflow, database.
- Email Work:** stats, sprint, new, news, questions, page, becca, working, chef-client, test, web, workflows, partner, wrapped, checked.
- Cookbook Up:** chef, info, crm, partner, wrapped, checked.

AlertLogic

- What It Does
- managed intrusion detection system
 - quick setup via the AWS marketplace

- Why We Picked It
- IDS' are typically a big pain to manage, much cheaper to use AlertLogic than do it ourselves
 - good product, good support
 - enterprise customers require an IDS

**Graph Label Classification**

#1	attempted-admin
#2	network-scan
#3	attempted-user
#4	trojan-activity
#5	attempted-recon
#6	web-application-attack