

Legend:

config

lib

lib

Misc

rmacconnell

root

Rails in the Large: *Building the Biggest (Enterprise) Rails Application in the World*

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www.thoughtworks.com
blog: memeagora.blogspot.com
twitter: [neal4d](https://twitter.com/neal4d)

You are logged in as demodealer | [Logout](#)

English

**ove.com**[» BUY](#)[» SELL](#)[» MY OVE](#)[» SERVICES & TOOLS](#)[» Help](#)**Buy**[» Basic Search](#) [» Advanced Search](#)

Type:

Make:

Model:

Trim:

Years: -

VIN:

Seller:

Vehicles with Condition Reports

[» Facilitation Location](#) [» Vehicle Location](#)

- All Locations
 - United States —
 - All United States Locations
 - AR - Central Arkansas Auto Auction (15)
 - AZ - Manheim Arizona (205)
 - AZ - Manheim Phoenix (250)
 - AZ - Manheim Tucson (114)
 - AZ - ADESA Phoenix (0)
 - AZ - DAA Southwest (0)

[» Sellers by Type](#) [» Sellers A to Z](#)

- [Expand All](#) [Collapse All](#)
- Select All
- Unselect All
- Captive Finance (Credit Cars)
- Dealer
- Factory
- Fleet/Lease
- Rental

[» Search](#)**BROWSE FOR VEHICLES**[- Hide](#)**Vehicle Type**

Passenger Vehicles

- [Car \(16305\)](#)
- [Truck \(3591\)](#)
- [Van \(1904\)](#)
- [SUV \(6285\)](#)

Makes

- | | | |
|--------------------------------|-----------------------------------|---------------------------------|
| AM General (6) | Flagstaff (1) | Monaco (2) |
| Acura (202) | Fleetwood (12) | Monon (1) |
| Adventure (1) | Fontaine (3) | Monterey (1) |
| Airstream (3) | Ford (4367) | Nash (2) |
| Alfa (5) | Forest River (15) | Nautique (1) |
| Alfa Romeo (1) | Formula (1) | New Holland (1) |

QUICK LINKS

- [Make OVE your homepage](#)
- [Newly Listed!](#)
- [Expiring Soon!](#)
- [Fuel Efficient \(4-cylinders\)](#)
- [Hybrids / Alternative Fuel](#)
- [In-Service Rentals](#)
- [Specialty](#)
- [Salvage](#)

Announcement:

Chrysler Financial has suspended dealer floor plan accounts. Please contact your preferred Facilitation Service Provider to arrange for alternate payment terms.

ONLINE EVENT SALES

OVE.com – Search Results

Sort By: MMR Low to High

Displaying 1 - 50 of 27934 vehicles

1 2 3 4 5 ... 559 [Next >](#)

Color Group	Year	Make	Model and Trim	Odometer	MMR	Buy Now	Current Bld	Time Left	Facilitation Location		Seller
									Vehicle Location		
	2006	Mercedes-Benz	R-Class R350	29,137	Above: \$25,100 Average: \$23,100 Below: \$21,100	\$23,750		3d 17hr 56m	FL - Manheim Central Florida	Cfp Motors Ltd	
Blue				4JGCB65E16A023560			»BUY NOW		At Dealership		
									CFP MOTORS LTD		
									FL - FORT PIERCE		
»Add to Watchlist											
	2004	Ford	E-250	119,919	Above: \$3,725 Average: \$2,900 Below: \$2,050	\$500		2d 19hr 11m	PA - Manheim Pennsylvania	Manheim Pennsylvania	
Yellow				1FTNE24W94HB24289			»BUY NOW		At Auction		
									Manheim Pennsylvania		
									PA - MANHEIM		
»Add to Watchlist											
	2003	Infiniti	G35 Base	1 mi	Above: \$16,050 Average: \$14,550 Below: \$13,050	\$3,900	\$2,900	0d 02hr 26m	UT - Brasher's Salt Lake Auto Auction	Worldwide Auto Inc	
				JNKCV54E73M212262			»BUY NOW	»BID			
									At Dealership		
									WORLDWIDE AUTO INC		
									UT - SALT LAKE CITY		
»Add to Watchlist											
	2000	Chrysler	Cirrus LXi	1	Above: \$3,775 Average: \$3,225 Below: \$2,675	\$1,000		10d 00hr 41m	LA - Manheim New Orleans	Jimmy Stockstill Motors Inc	
Gold				1C3EJ56H0YN164882			»BUY NOW		At Dealership		
									Jimmy Stockstill Motors Inc		
									MS - PICAYUNE		
»Add to Watchlist											
	2000	Oldsmobile	Alero GX	84,140	Above: \$3,450 Average: \$2,550	\$900	\$400	0d 15hr 11m	NJ - Manheim New Jersey	Fleet Street Remarketing U.S.	

Vehicle Details

[» Dealer View](#) [» Retail View](#)[« Back to Search Results](#)[« Previous](#)

1 of 17

[Next »](#)[» View Larger Photos](#)

REPORTS

View the full [Condition Report](#) for additional details.For more info, view the [Vehicle History Report](#)

ANNOUNCEMENTS

Title Status: Title Present

Titled In: PA

2004 Ford E-250

[» Add to Watchlist](#)

1FTNE24W94HB24289

CR

PRICING

Buy Now Price: \$500

[»BUY NOW](#)

Time Left: 2d 19hr 09m

End Date: 05/07/2009 12:00PM ET

Views: 27

[View Fees](#)

Facilitated by: Manheim Pennsylvania

Vehicle Location: At Auction MANHEIM, PA, US

MMR

Above: \$3,725

Average: \$2,900

Below: \$2,050

[+ View Details](#)

Black Book

Extra Clean: \$8,550

Clean: \$5,125

Average: \$4,075

Rough: \$2,400

[+ Show Adds/Deducts](#)

VEHICLE SPECIFICATIONS

VIN: 1FTNE24W94HB24289

Odometer: 119,919

Transmission: Automatic

Engine Cylinders: 8 Cylinder

Drive Train: Not Specified

Fuel Used: Not Specified

Exterior Color: Yellow

Interior Color: GRY

Interior Type: Vinyl

Body Style: Van

Doors: Not Specified

Audio: AM/FM

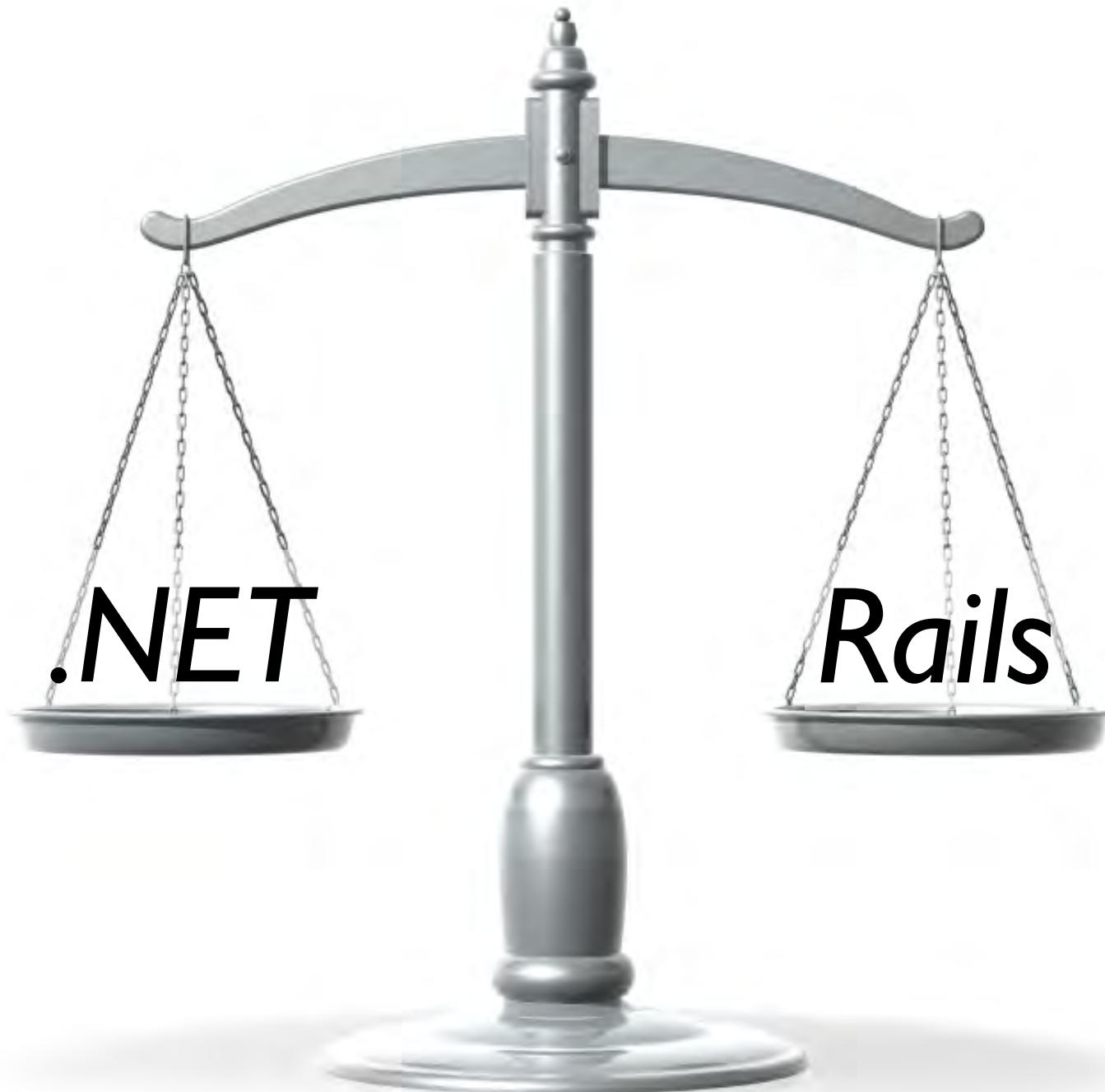
Top Style: Hard Top

EQUIPMENT

the pursuit

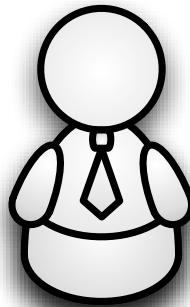
*Go for the one that'll beat the
one that'll beat the one you
last did*



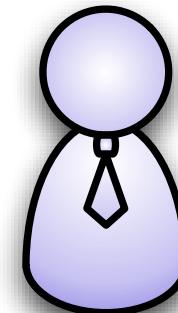




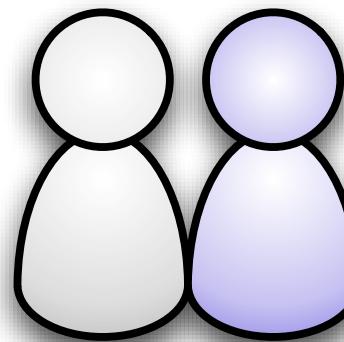
quick start: october 2006



Project manager



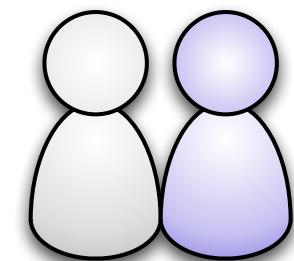
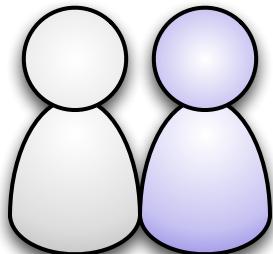
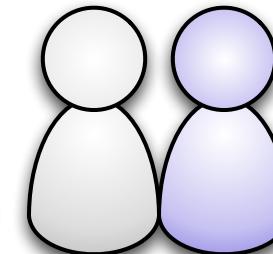
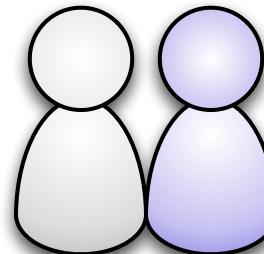
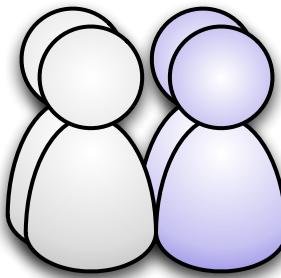
Business Analyst



Tech Lead

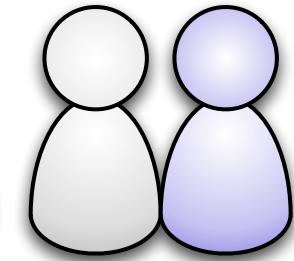
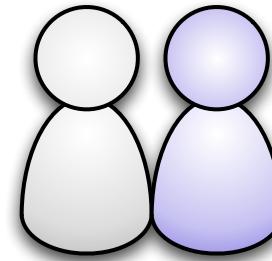
Developer

inception: Jan 17, 2007

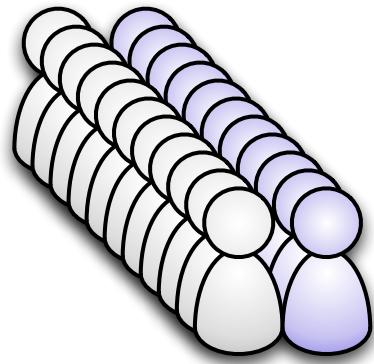


Started with 2 pairs

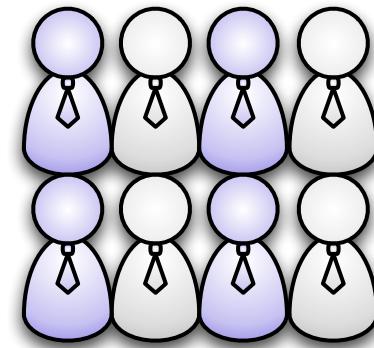
Added one pair every 2 weeks



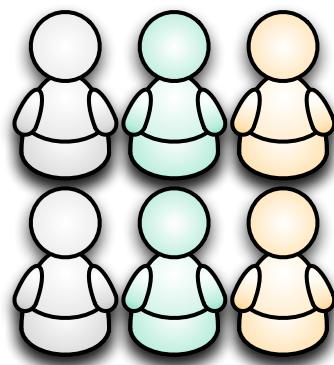
8 or 9 pairs by July



now



11 pairs of developers

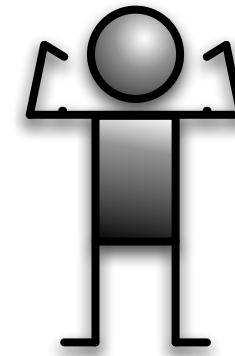


iteration manager



6 quality assurance

project manager



client principle

lessons learned



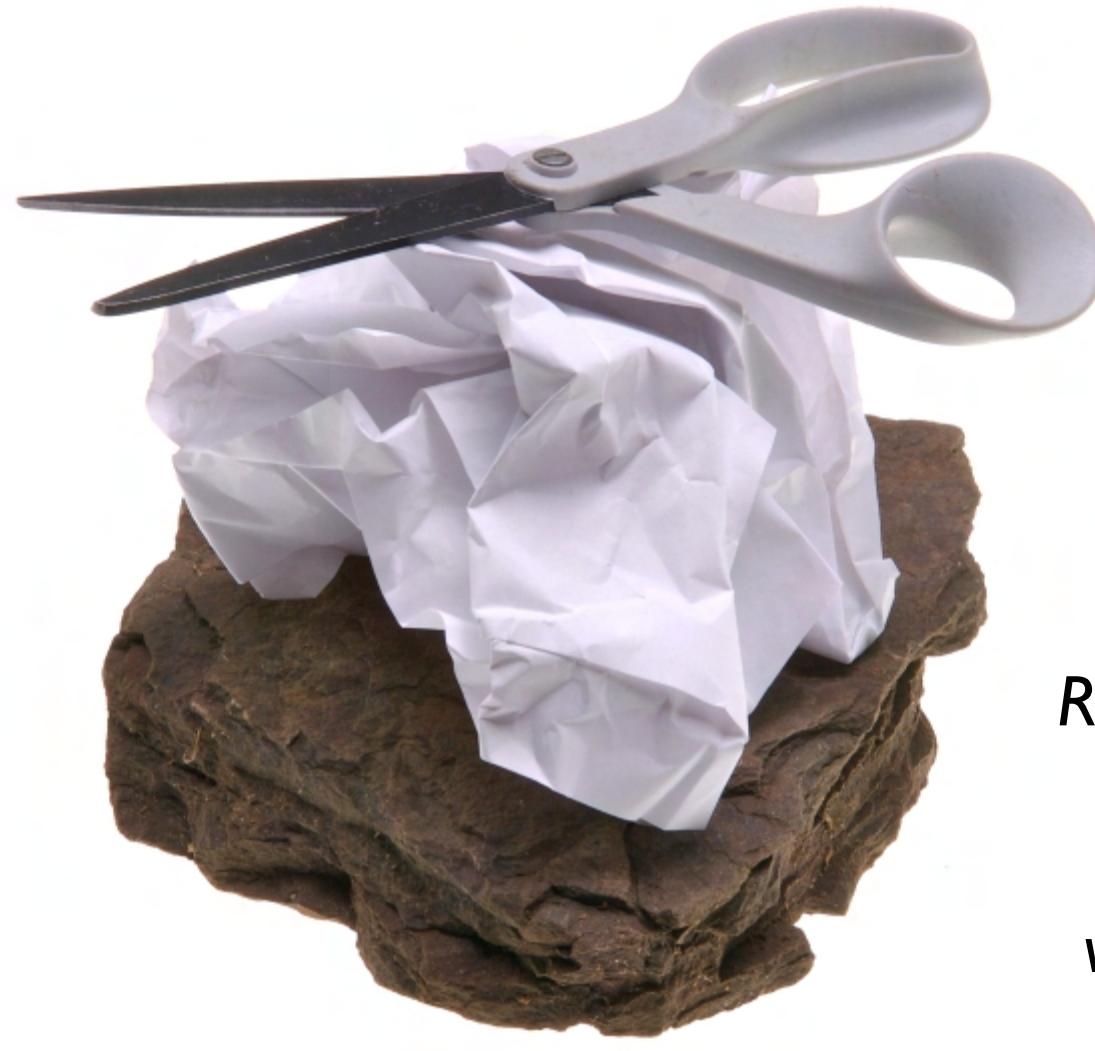
technology isn't as important as responsiveness
to business needs

don't try to convince too early

spikes are your friends!

demonstration over arguments

infrastructure



*Rock is for Rookies:
males have a
tendency to lead
with Rock on their
opening throw*

physical infrastructure



pairing workstations



XServe (Selenium Grid)



BA



standalone QA

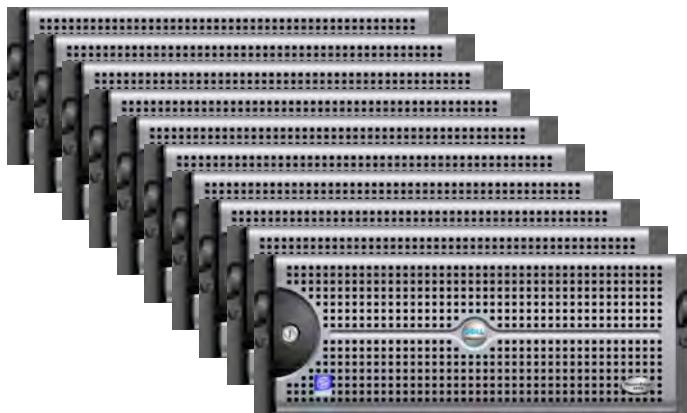


integrated QA



UAT
(sneak peak)

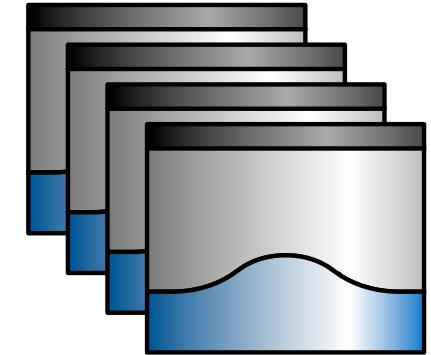
deployment stack



10 web boxes



2 image servers



4 database
servers



background server



memcache

```
pgmac:~/work/ove-ruby% rake metrics:stats  
(in /Users/pgross/work/ove-ruby)
```

Name	Lines	LOC	Classes	Methods	M/C	LOC/M
app/controllers	4283	3483	75	443	5	5
app/form_builders	102	83	4	16	4	3
app/handlers	98	85	2	10	5	6
app/helpers	871	704	0	95	0	5
app/models	17514	14239	311	1829	5	5
app/modules	1639	1340	3	189	63	5
app/observers	0	0	0	0	0	0
app/presenters	5913	4663	133	907	6	3
app/services	3431	2863	91	278	3	8
app/utils	85	72	5	9	1	6
app/view_states	780	624	10	98	9	4
app/workers	1043	867	37	112	3	5
extensions	2141	1743	16	237	14	5
lib	1929	1613	42	182	4	6
test/unit	54262	44757	681	150	0	296
test/functional	52858	43174	293	62	0	694
test/view	17056	13657	72	17	0	801
test/externals	1359	1063	23	8	0	130
test/search	598	512	5	2	0	254
test/vicki	295	258	4	11	2	21
Total	166257	135800	1807	4655	2	27

Code LOC: 32379

Test LOC: 103421

Code to Test Ratio: 1:3.2





lessons learned

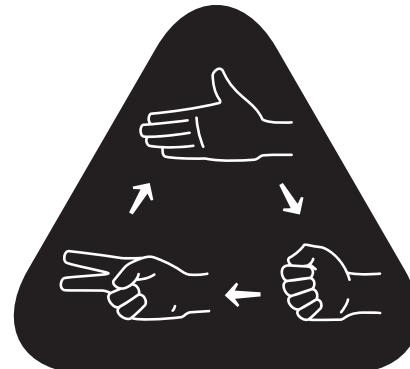
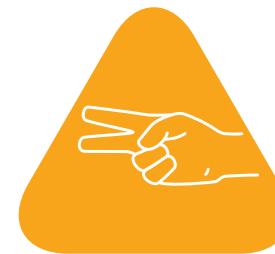
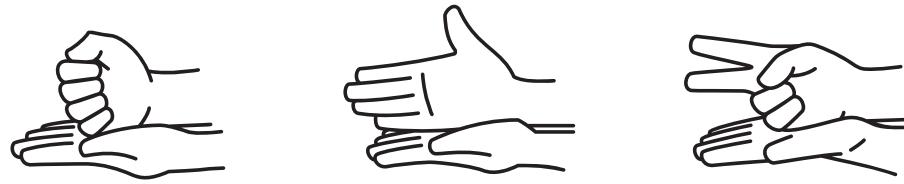


scale infrastructure opportunistically...

...but don't wait too long

Mac OS X rocks

have fun



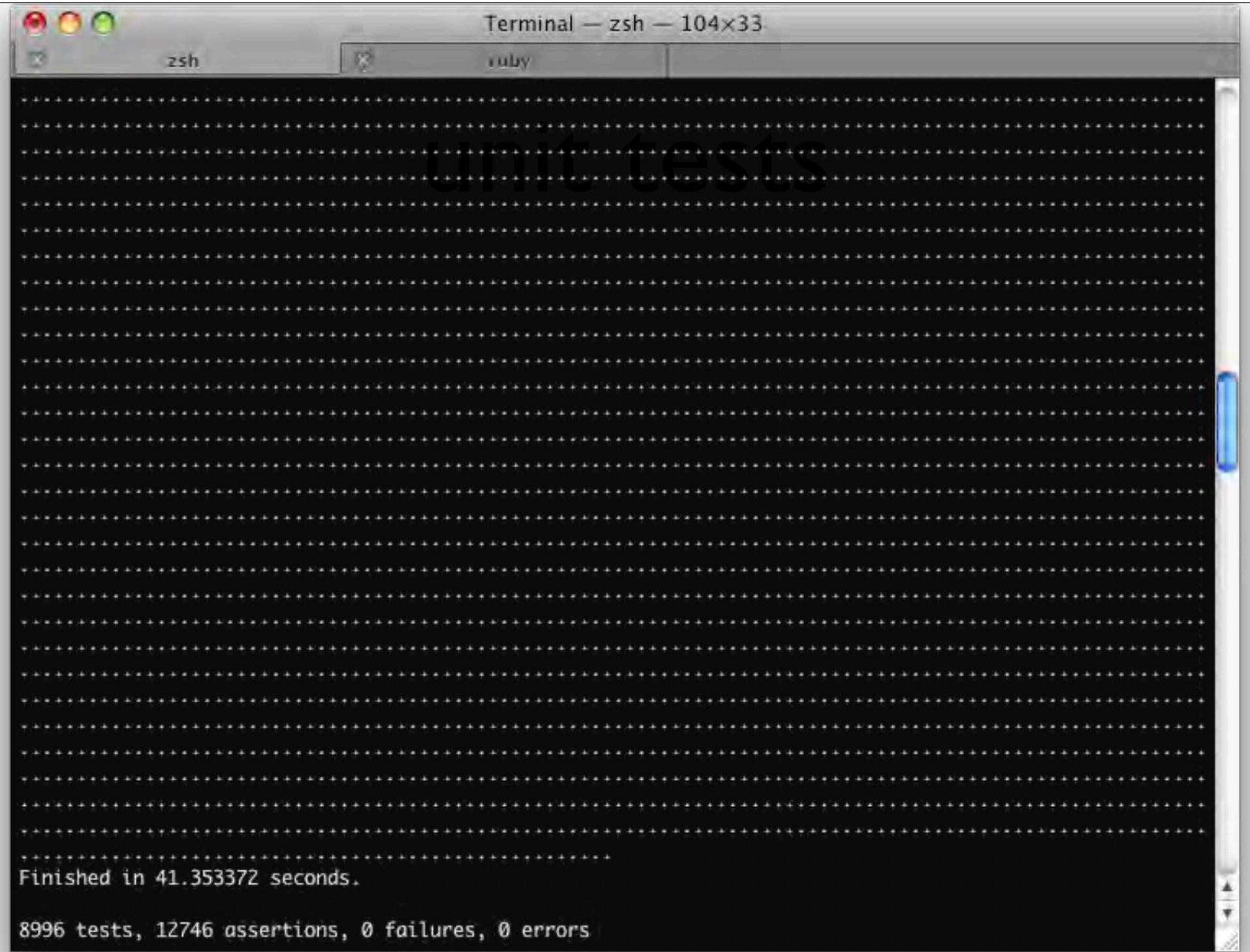
testing

*Scissors on First:
play scissors as your
opening move against a
more experienced player*

disconnected unit tests

UnitRecord and the evolution of unit
tests that don't hit the database

<http://github.com/dan-manges/unit-record>



the rule:

unit tests don't hit the
database

mock everything

Terminal – zsh – 104x33

zsh

ruby

Finished in 248.573856 seconds.

3964 tests, 8288 assertions, 0 failures, 0 errors

**no mocking allowed in
functional tests**

**tests that hit the database are
slooooow**

DeepTest

<http://github.com/qxjit/deep-test>

Tue 5:32 PM

Terminal — ruby — 98x29

ruby

zsh

```
tworker/work/release_1.31/db/deep_test_schema.sql
[2009-04-28 17:31:19] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_5_pid_13999 < /Users/tworker/work/release_1.31/db/deep_test_schema.sql
Loaded suite #<DeepTest::Test::SupervisedTestSuite:0x530960c>
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_0_pid_13994_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_6_pid_14000_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_1_pid_13995_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_2_pid_13996_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_5_pid_13999_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_4_pid_13998_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_7_pid_14001_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
[2009-04-28 17:31:25] mysql -u ove -pove -S /tmp/mysql.sock deep_test_worker_3_pid_13997_parking_lot < /Users/tworker/work/release_1.31/db/deep_test_schema_parking_lot.sql
....
```

DistributedDeepTest



**prefer factories over
fixtures**



Selenium grid



CruiseControl.rb

Continuous Integration in Ruby

Continuous Integration isn't rocket science. We keep it simple!

Coupons & Specials

CruiseControl.rb

Continuous Integration in Ruby

Continuous Integration isn't rocket science. We keep it simple!

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Coupons & Specials

CruiseControl.rb

Continuous Integration in Ruby

Continuous Integration isn't rocket science. We keep it simple!

new instances added
as needed

cc.rb instances

Selenium view builds trunk

Selenium view builds release

core trunk build (commit build)

trunk + search infrastructure

core-release, externals, web services, datasets

VMware
Fusion



deployment & testing

lessons learned



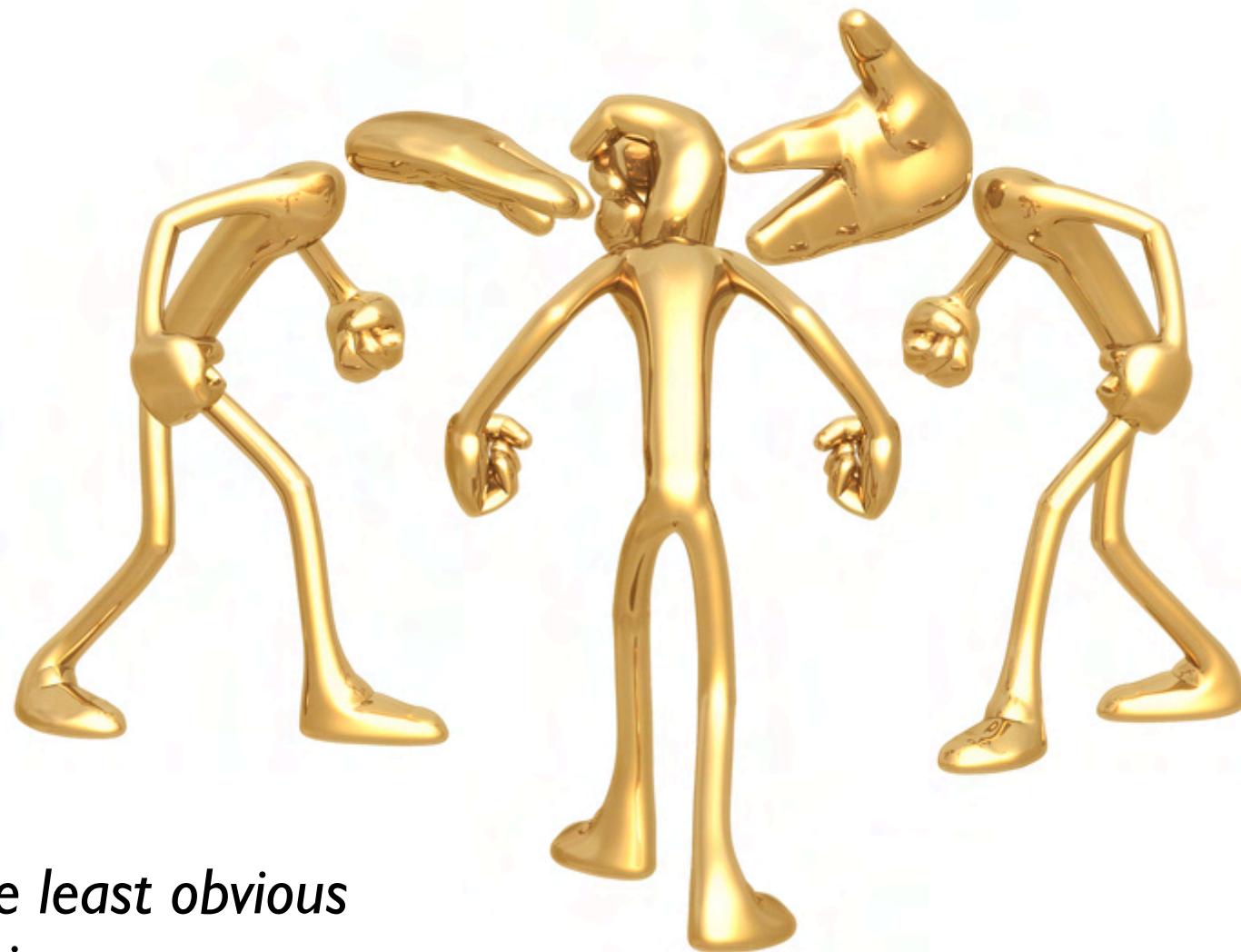
fight the battle to keep tests fast

invent stuff if you have to

write smart tests

scale development infrastructure just like
production infrastructure

knowledge transfer



*Paper is the least obvious
of opening moves.*

Firefox File Edit View History Bookmarks Tools Window Help

Online Solutions Project Ruby Card Wall PI - Mingle

[Link to this page](#) [Add / remove lanes](#)

Blocked (0)

Ready for Development (0.25)

- ID: #9573 Seller information link can be inserted with.
- ID: #9509 Endeca-Binz site coming up instead of Prod code / issues.
- ID: #9683 Select correct JS Error for every page rendered.
- SUSI - #9403 Handle hashed passwords.
- UNSERVICE - Auto Order Aging Report Not Correct.
- UVIS - #9678 Implement Removal of Images for Non-Members.
- #9609 Employees - Sales - Tasks to be done white.
- SUSI - #9553 Setup ActiveHQ Infrastructure.
- Search #9521 I Set up Endeca production environment.
- #9196 LISTINGS: LIMIT Auto-instat on auto-select.
- Setting #9102 ActiveHQ tasks appearing multiple times.
- #9058 PERFORMANCE Change bidding logic An actions catalog.
- #9382 PERFORMANCE Investigate Cache Memory.

In development (7)

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Need help? Forums About Log a support request

[Done](#)

[Link to this page](#) [Add / remove lanes](#)

Ready for BA Signoff (1)

Search #9681 Endeca sort should handle checkboxes first.

In BA Signoff (6.75)

#9455 Accurate changes in browser when switching tabs.

#9444 Add Pending listing items to Endeca and.

#9106 CHARTS: Add chart to report to facilitate call.

Ready for Testing (0.25)

#9677 EMPLOYEE Error displayed when changing location.

#9674 EMPLOYEE #9511 Seller Information link accessible.

#9659 #9659 #9659 Change the price and click new channels.

#9391 SERVICE Increase the Merge Bands on this.

#9351 Search #9351 Use Endeca to Sort the Browse results.

#9039 PROBLEM FILE - Show Problem File communication.

#9944 PROBLEM FILE - Allow Problem File translation to A.

#8279 LISTINGS: Limit Auto relist for Open Events.

#9680 InService - E-mail scrub

In Standalone Testing (7) Waiting for Defect Fix (2)

#9470 PERFORMANCE Investigate memory leaks.

#9430 SECURITY Fix sorting of settings on My Business Attache.

#9276 SEARCH / COUNTS Counts in the Browse form should be.

#9221 Implement cron-like background scheduling.

#9173 CONDITION INFO : Make Prior Paint and Frame.

Search #9073 Render Browse results page from Endeca.

Search #9072 Create Browse form using Endeca.

Editing #8825 Use Listings with Distribute and Contextual filters.

SUSI - #9541 Seller #9285 Information not populating correctly.

cc_board

01_trunk_commit	02_trunk_acceptance	03_trunk_apache
04_trunk_externals	05_trunk_metrics	07_trunk_qa_tests
11_release_commit	12_release_acceptance	13_release_apache
14_release_externals	17_release_qa_tests	97_deploy_ba
98_deploy_staging	99_spider_production	ove-search-infrastructure
in-service	ove-core-trunk	ove-core-release
ove-externals	ove-externals-trunk	ove-query-counts
webservices-core	z-deploy-ba-trunk	z-deploy-endeca-ba-trunk
z-deploy-iqa-release	z-deploy-sqa-trunk	ove-view-trunk
ove-view-release-branch		

http://github.com/qxjit/cc_board/

play a song when a
build breaks



play theme song upon
successful checkin

A photograph of a vintage jukebox. The machine is dark-colored with a silver coin slot and a circular logo on the front. Inside the glass door, two rows of white record sleeves are visible. To the right of the jukebox, a blue wall features a wooden maraca hanging from a horizontal bar. A stack of vinyl records is leaning against the wall to the right.

jukebox.rb

currently in alpha

**[http://subversion.hammersforge.com/
jukebox.rb/trunk/](http://subversion.hammersforge.com/jukebox.rb/trunk/)**

pairing stations

adium

no email



internal Jabber server chat rooms

devs
BAs
QAs
shared buddy list

automatically set pair
name

adium

Mingle card (upon commit)

lessons learned



software is more about communication than technology

use information radiators

co-location rocks

pairing really rocks

have fun



automate everything

When playing with someone who is not experienced at the RPS, look out for double runs or, in other words, the same throw twice.

I-click deploy to any
environment

using cc.rb as easy deployment
tool

rake commit

run all unit tests

run all functional tests

verification (language keys)

commit

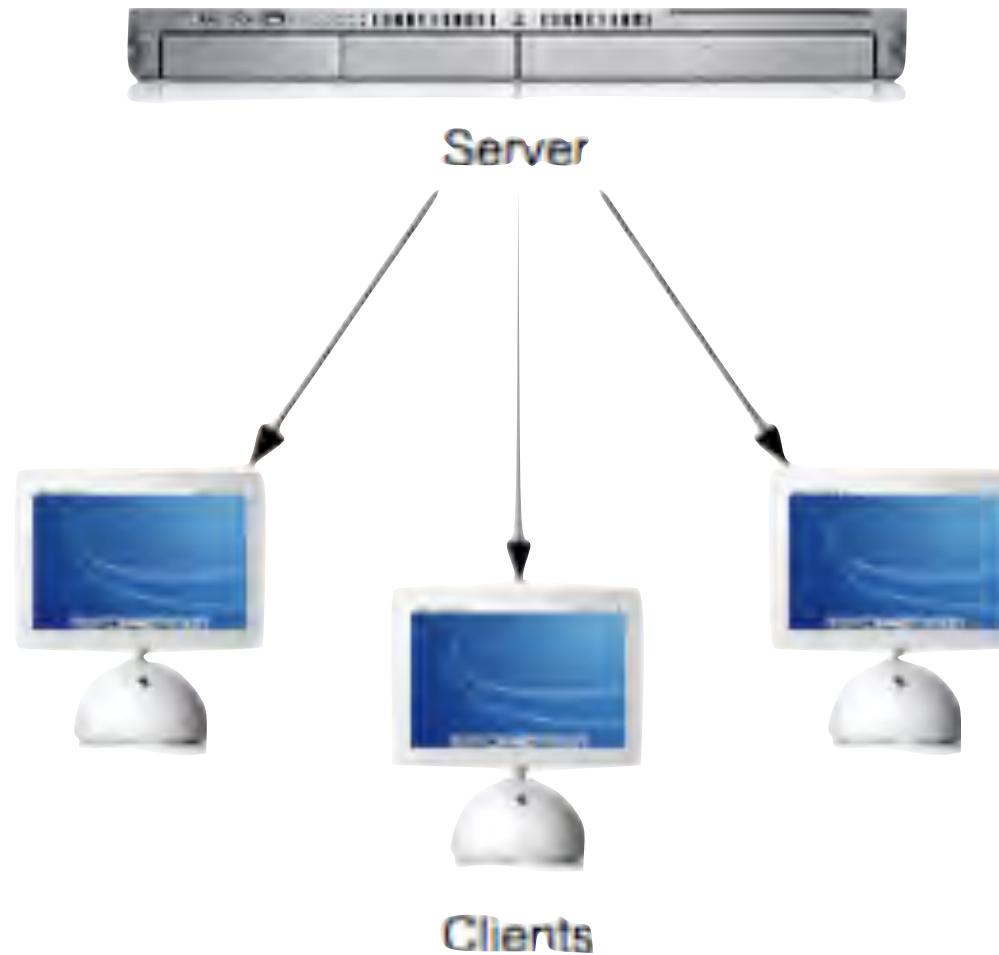
http://github.com/pgr0ss/rake_commit_tasks

canonical pairing station maintenance

cap pairing_stations

radmind

<http://rsug.itd.umich.edu/software/radmin/>



strict rules for advanced language features

*Tell your opponent
what you are going to
throw and then actually
throw what you said.*



Rock beats scissors.



Paper beats rock.



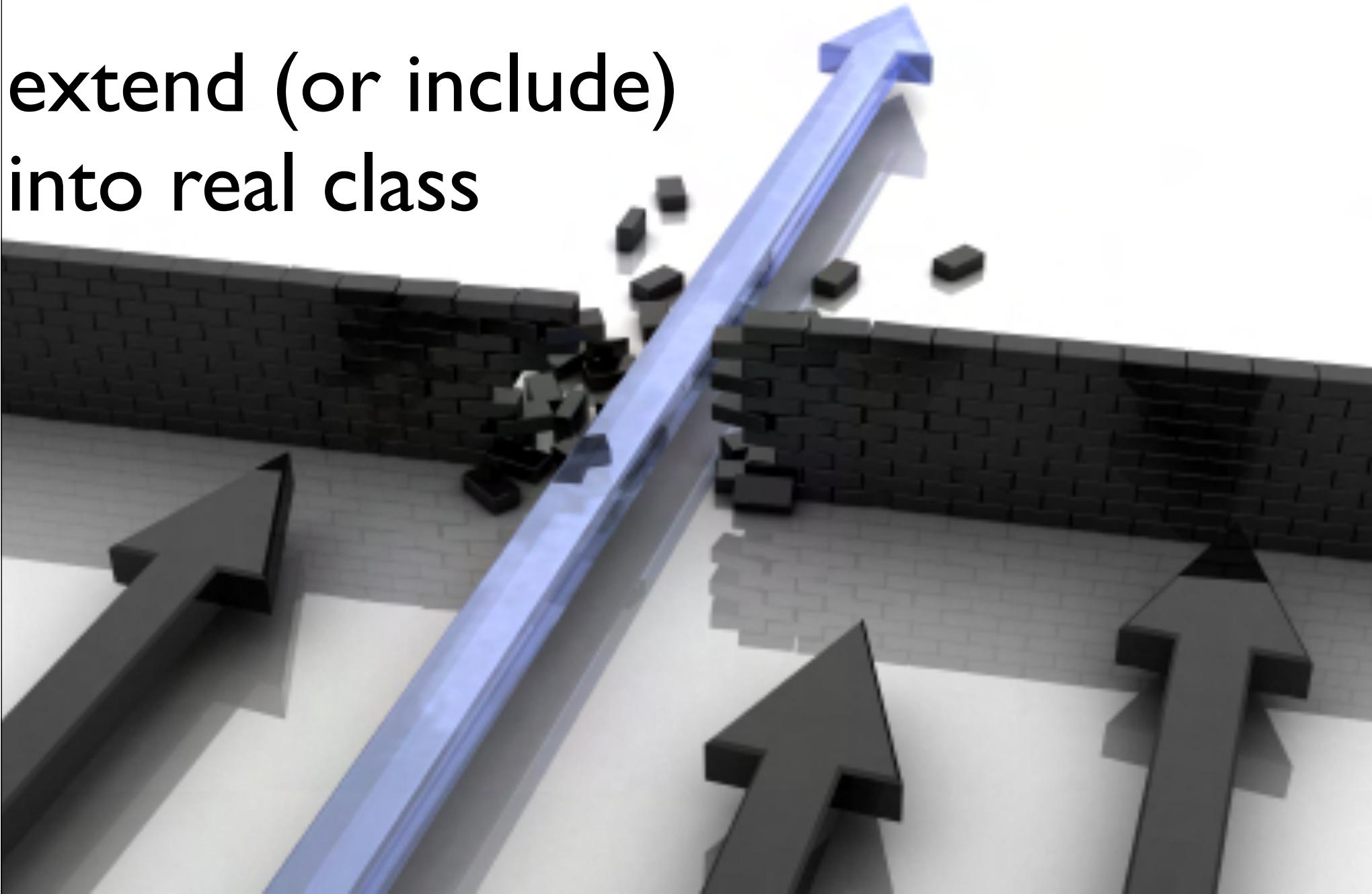
Scissors beats paper.

**monkey patches all live
in extensions folder**



modularize extensions

extend (or include)
into real class



ancestors

```
>> String.ancestors
=> [String, StringExtension,
    ActiveSupport::CoreExtensions::String::Multibyte,
    ActiveSupport::CoreExtensions::String::Behavior,
    ActiveSupport::CoreExtensions::String::Filters,
    ActiveSupport::CoreExtensions::String::Conversions,
    ActiveSupport::CoreExtensions::String::Access,
    ActiveSupport::CoreExtensions::String::Inflections,
    Enumerable, Comparable, Object, InstanceExecHelper,
    Mixology, ActiveSupport::Dependencies::Loadable,
    Base64::Deprecated, Base64, LocalMethods,
    Wirble::Shortcuts, PP::ObjectMixin, Kernel]
```

where did you come
from again?

```
"".method :md5sum
#<Method: String(StringExtension)#md5sum>
```

test the extensions

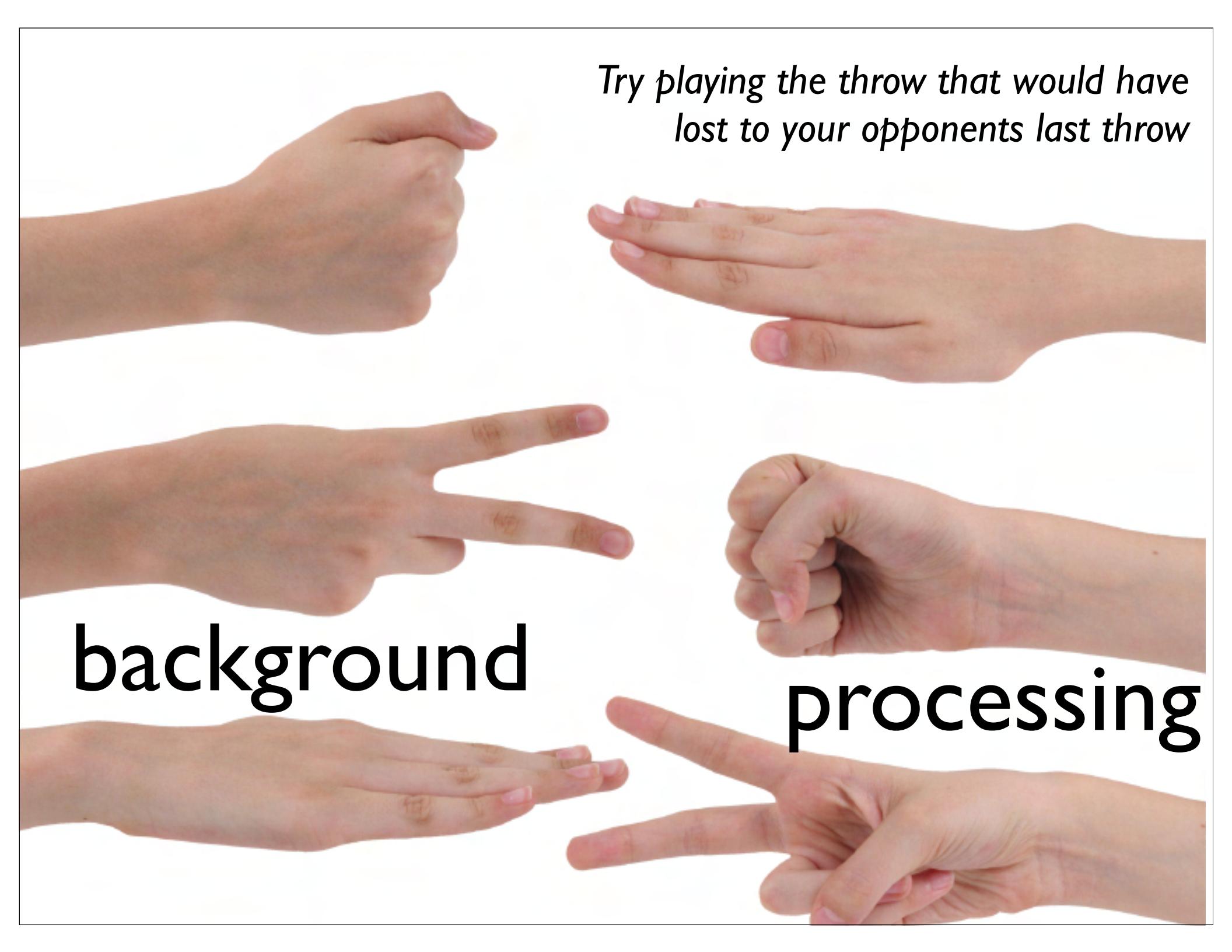
duh!

include a version test
to break upon upgrade

**use meta-names
somewhere**

ack is your friend

*Try playing the throw that would have
lost to your opponents last throw*

A composite image illustrating background processing. It features five hands arranged in a 2x2 grid with a central overlap. Top-left: A closed fist. Top-right: An open hand. Bottom-left: Two fingers pointing upwards. Bottom-right: A closed fist. The hands belong to different individuals and are set against a white background.

background

processing

3 kinds

continually run

 updating cached values

 counts

CRON-like behavior

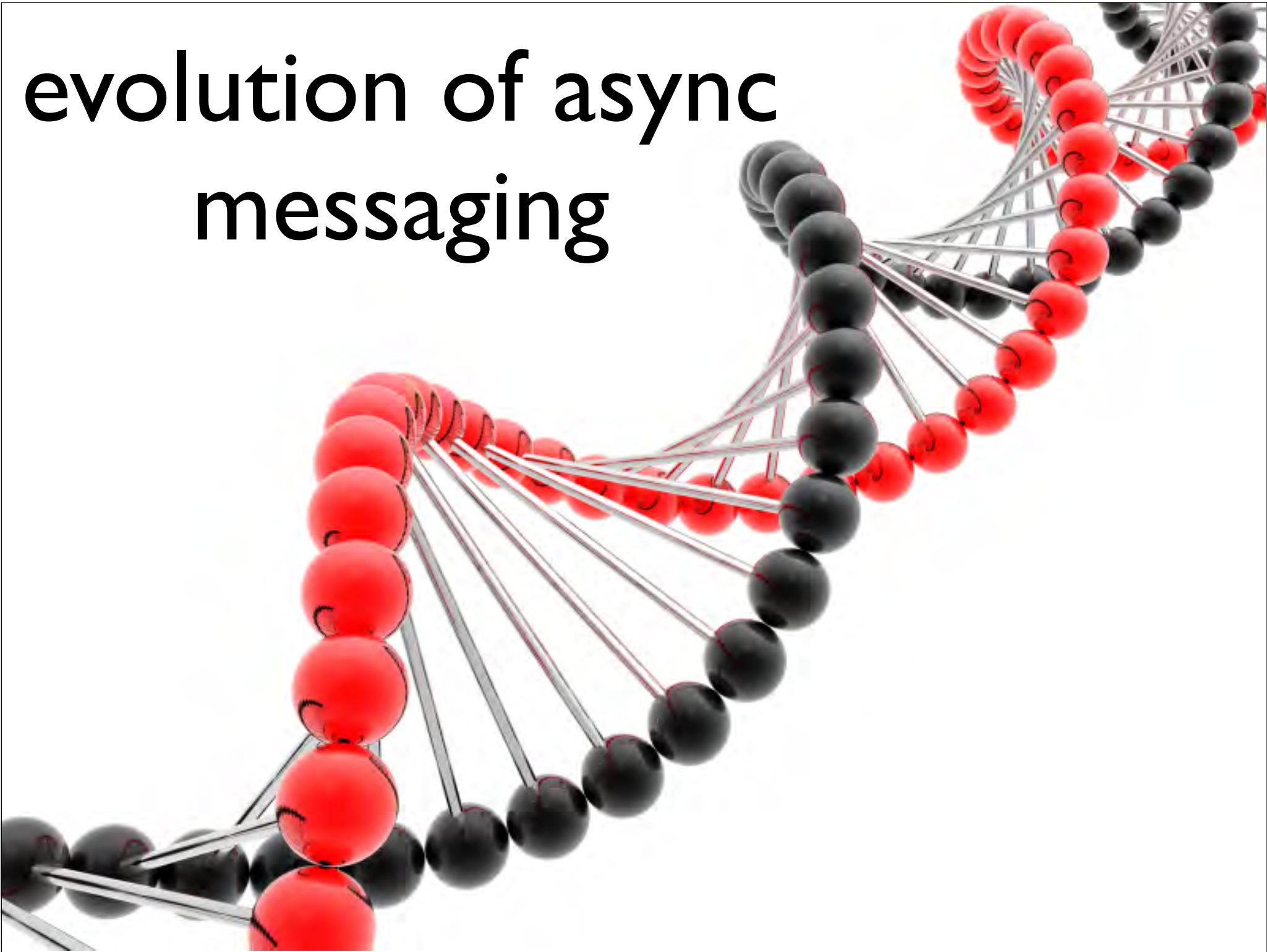
 run at a certain time

Asynchronous behavior

 progress bars

 image downloading

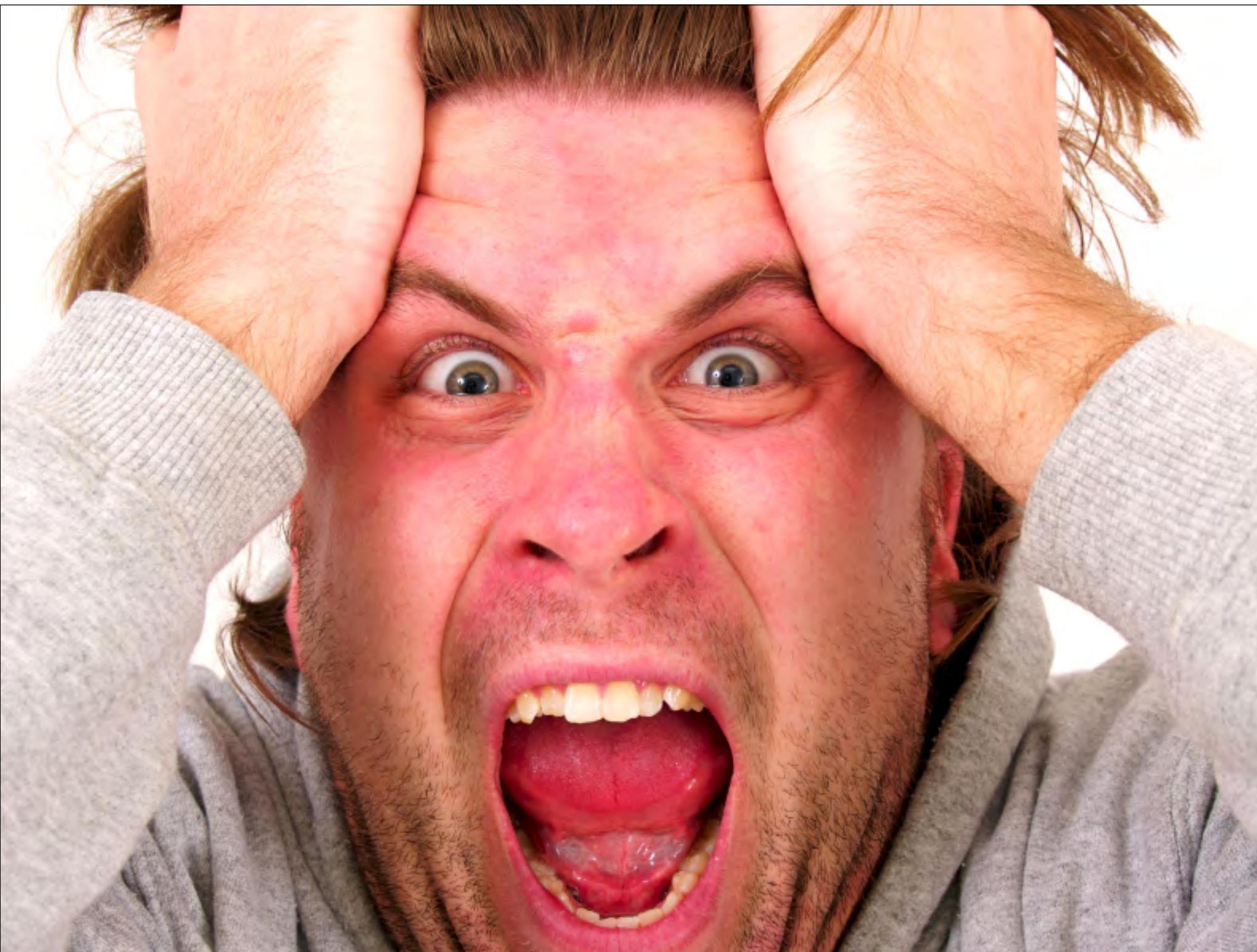
evolution of async messaging



do work inline

gets slower over time

traffic goes up



switch to a real
messaging queue
(Starling)

YAGNI

emergent design around async
messaging

lessons learned



avoid anticipatory design

gradually add complexity

don't use databases as message queues (for too long anyway)

DBA's can sometimes get grumpy

external dependencies



When playing against someone who asks you to remind them about the rules, take the opportunity to subtly "suggest a throw" as you explain to them by physically showing them the throw you want them to play.

**make well defined
boundaries**

**mock and stub
boundaries**

external builds to test
service changes

we often catch bugs &
downtime in other services

tests to validate WSDLs
haven't changed

tests to call services

check that responses haven't
changed

tests to check against
content & html editors

non-printable characters

duplicate ids

performance & optimization



When all else fails, go with paper: Statistically, in competition play, it has been observed that scissors is thrown the least often.

not that many page
views...

...really complex pages!

custom hand-tuned SQL

```
Listing.find(:all,  
  :from => "listings USE INDEX (PRIMARY,  
    idx_listings_simple_basic_search,  
    idx_search_fsp)")
```

```
find :all,  
  :include => [{:fsp => [:parent_company, :state]},  
  :currency, :account, :default_image, :make,  
  :model, :trim, :vehicle_type, :exterior_color,  
  :high_bid, {:_search_postal_code => :state},  
  :state, :vehicle_location, :distribution_center,  
  {:_buyer_group => :owner_group}, :title_status, :event_sale]
```

**Memcache sessions &
many database lookups**

MySQL replication

**use separate boxes for
ETL schemas**

write priority

challenges



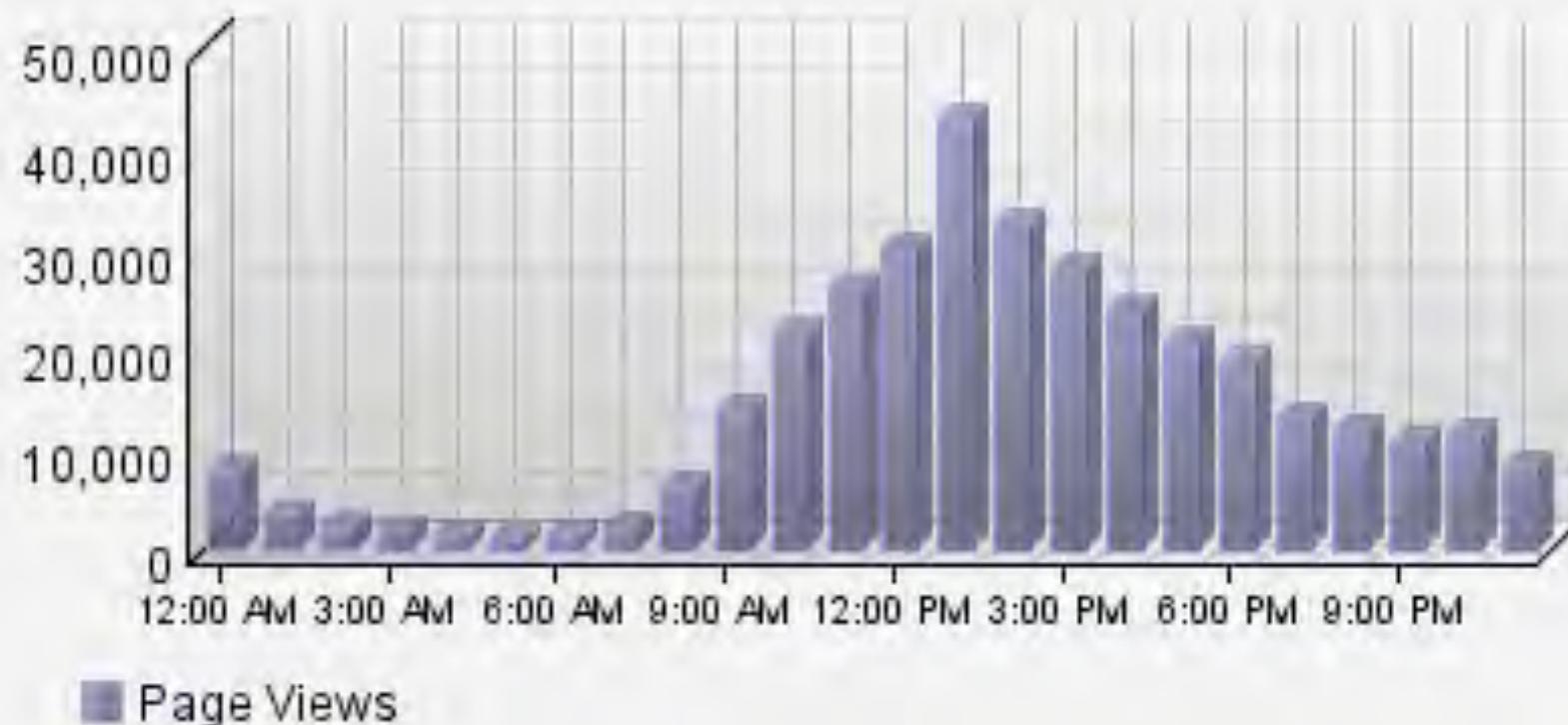
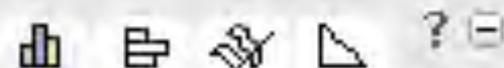
For tournament play, learn the Great Eight Gambits.

scaling is hard

no matter the technology

rails can scale!

Page Views Trend



■ Page Views

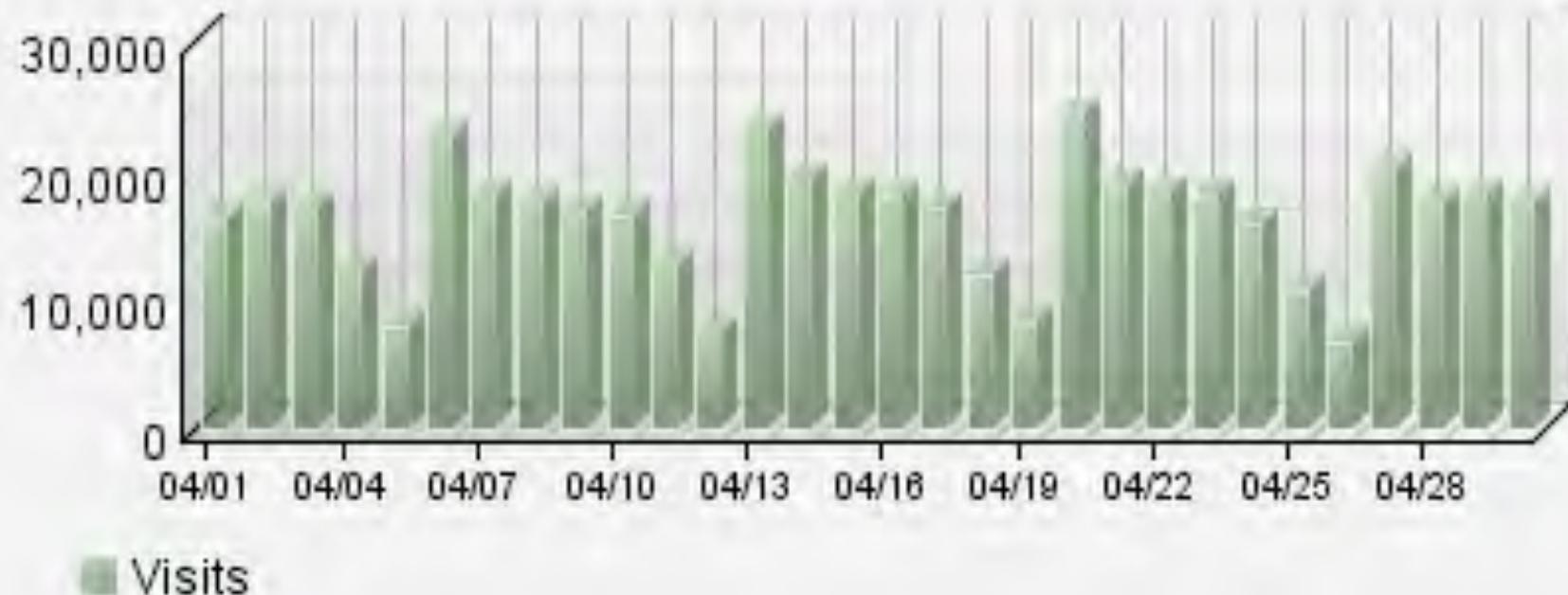
Page View Summary

Page Views	346,265
Average per Day	346,265
Average Page Views per Visit	17.07

Visits Trend



Visits



Visits

Page View Summary

Page Views	7,160,586
Average per Day	238,686
Average Page Views per Visit	14.76

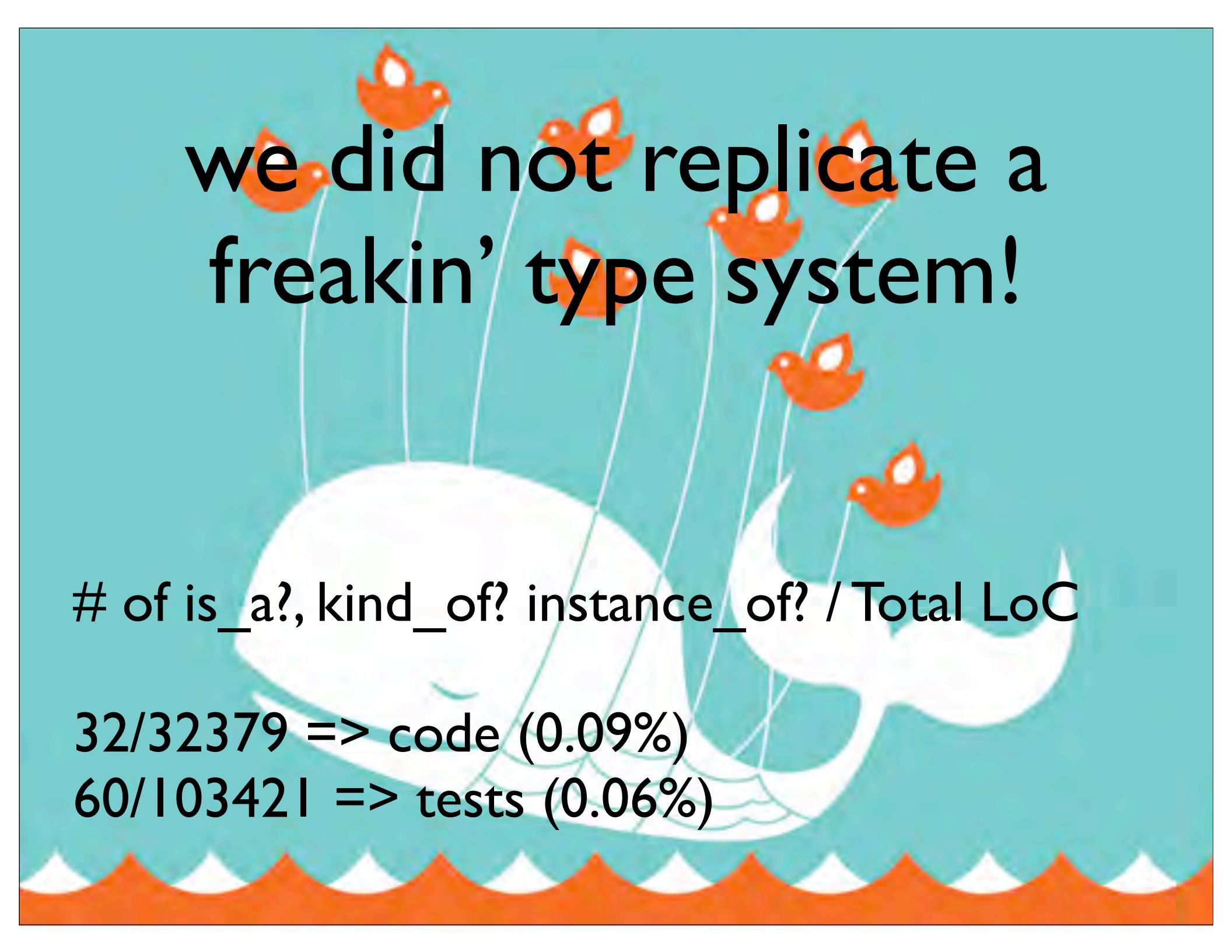
upgrading is hard

1 pair => 6 weeks to upgrade from 1.2.3 to 2.2

back port fixes &
improvements

rails

other plugins



we did not replicate a
freakin' type system!

of `is_a?`, `kind_of?` `instance_of?` / Total LoC

$32/32379 \Rightarrow$ code (0.09%)

$60/103421 \Rightarrow$ tests (0.06%)

A photograph of two hands in dark suit jackets and white shirts against a solid blue background. The hand on the left is making a 'scissors' gesture with the thumb and index finger. The hand on the right is making a 'paper' gesture with the palm facing forward. Below the hands, the text 'why all the rochambeau stuff?' is written in a large, white, sans-serif font.

why all the
rochambeau stuff?

view builds are fragile =>

separate cc.rb build =>

view builds are slow =>

I pair assigned as view
masters

worst...job...ever



today's view master
assigned by
yesterday's...

...or play RPS



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Polls

What do you think of Rock?

- Most overrated throw in the game
- Solid throw, I use it often
- Only when backed into a corner
- Rock is for rookies

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[Results](#)



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would we do it again?

hell yeah!

? ' S



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