

STOP FLYING BLIND

PROFILING YOUR APP'S INTERNALS

innoQ





iQvoc – A Vocabulary Management System for the Semantic Web

http://iqvoc.net/

iQvoc – A Vocabulary Management System for the Semantic Web.

iQvoc

A Vocabulary Management System for the Semantic Web.

About Features Customization Technology Team Source Code

About

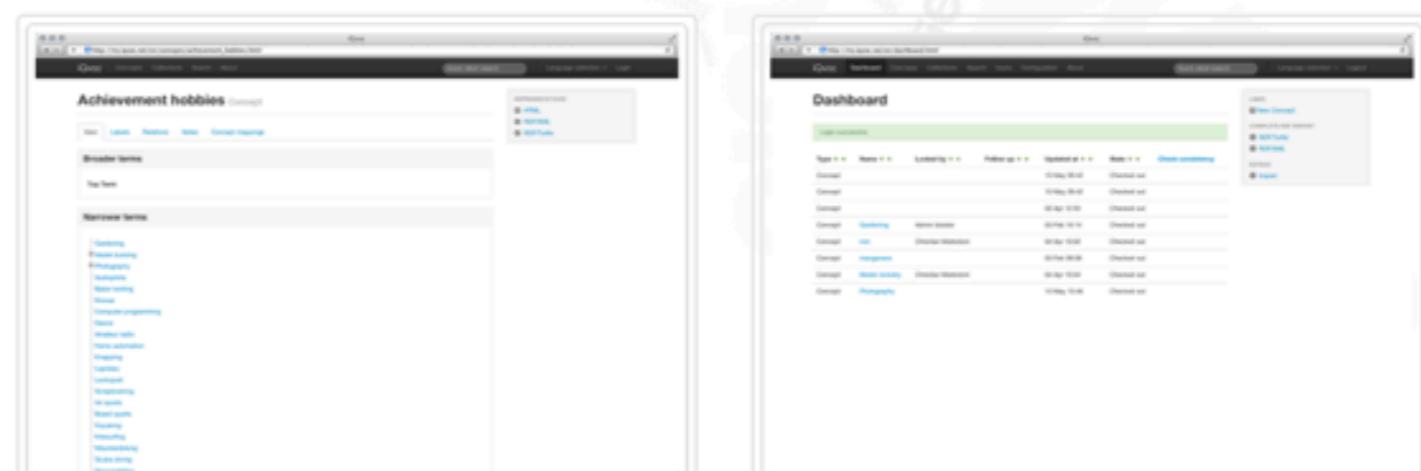
What is it?

iQvoc supports vocabularies that are common to many knowledge organisation systems, such as:

- Thesauri
- Taxonomies
- Classification schemes
- Subject heading systems

You can try out iQvoc right now! In our sandbox you can play around with the public views. If you like to test the collaborative functions simply [request](#) your personal demo account.

» Try it now!



Features

What iQvoc can do for you.

OPEN SOURCE

ay
ported, any vocabulary is ready to be displayed and
in an intuitive Web interface. iQvoc supports various
able skins to align with any kind of user-specific style
iQvoc Web interface provides unrestricted
lism and conforms to the guidelines of the Web
ity Initiative (WAI).

Editorial Workflow

The general vocabulary administrator may authorize registered users as vocabulary editors. Editing is performed in an extension of the original Web interface, so the editorial staff can be globally distributed and there is no need for any kind of additional tooling. More sophisticated editorial features are planned for version 2, including a fine grained work flow and



Mahlzeit, robertg

Mitarbeiter 3 €, Externe 5 €

Aktuelle Termine

Speise	Datum	Anmeldungen	Status
Pesto-Nudeln auf Kräuterhähnchenfilet	2012-06-14 (Donnerstag)	5	<button>Buchen</button>
Nudeln mit Pesto und Kräuter-Hähnchenfilets aus dem Backofen			
Eis-Dessert			
Hirntopf mit Schafskäse			
Mais, rote Bohnen, Paprika, Schafskäse, Kartoffeln und Hackfleisch		3	<button>Buchen</button>
Rote Grütze mit Vanillesauce			
Bandnudeln mit Garnelen	2012-06-12 (Dienstag)	7	<button>Buchen</button>
Bandnudeln, Möhren und Zucchini in einer leichten Currysahne-Sauce, dazu Garnelen			
Muffins			
Thai-Curry			
Hähnchenbrust, Gemüse, Reis		5	<button>Buchen</button>
Pfirsich-Lassi			
Salatteller mit Hähnchenspieß			
Bunter Salatteller, Hähnchenspieß		9	<button>Buchen</button>
Muffins			
Spargel-Schinken-Rosmarinkartoffel			
2012-06-05 (Dienstag)		8	<button>Buchen</button>

Neuer Termin

Speise	<input type="text"/>
Details	<input type="text"/>
Datum	<input type="text"/>
Slots	<input type="text"/> +
<button>Speichern</button>	

HACK DAYS

WHAT DID MY APP DO
WHEN
HOW MANY TIMES
AT WHICH RATE

CPU USAGE

IO

NETWORK TRAFFIC

LOAD AVERAGE

MEMORY

500s
EXTERNAL API CALLS
DATABASE QUERIES
PAGE VIEWS
DEPLOYMENTS
NOTIFICATIONS
EMAILS
SEARCH QUERIES
REGISTRATIONS

HOW DO I FIND OUT ?

ENTER
METRICS

```
iqvac_compound_forms — ssh — 132x44
Completed 302 Found in 1ms (ActiveRecord: 0.1ms)

Started GET "/en/hierarchical_concepts.html" for 76.69.113.145 at 2012-02-01 02:05:45 +0100
Processing by Concepts::HierarchicalController#index as HTML
  Parameters: {"lang"=>"en"}
    Rendered concepts/hierarchical/_treeview.html.erb (0.5ms)
    Rendered concepts/hierarchical/index.html.erb within layouts/application (1.6ms)
    Rendered layouts/_controls.html.erb (1.5ms)
    Rendered layouts/_header.html.erb (0.2ms)
    Rendered layouts/_navigation.html.erb (1.4ms)
Completed 200 OK in 42ms (Views: 35.6ms | ActiveRecord: 0.4ms)

Started GET "/en/alphabetical_concepts/a.html" for 76.69.113.145 at 2012-02-01 02:05:55 +0100
Processing by Concepts::AlphabeticalController#index as HTML
  Parameters: {"lang"=>"en", "letter"=>"a"}
    Rendered concepts/alphabetical/_pref_labeling.html.erb (0.0ms)
    Rendered concepts/alphabetical/index.html.erb within layouts/application (10.4ms)
    Rendered layouts/_controls.html.erb (1.6ms)
    Rendered layouts/_header.html.erb (0.1ms)
    Rendered layouts/_navigation.html.erb (1.0ms)
Completed 200 OK in 23ms (Views: 16.3ms | ActiveRecord: 0.5ms)

Started GET "/en/hierarchical_concepts.html" for 80.32.81.220 at 2012-02-01 02:16:27 +0100
Processing by Concepts::HierarchicalController#index as *
  Redirected to http://iqvac.innoq.com/en/hierarchical_concepts.html
Filter chain halted as :ensure_extension rendered or redirected
Completed 302 Found in 1ms (ActiveRecord: 0.1ms)

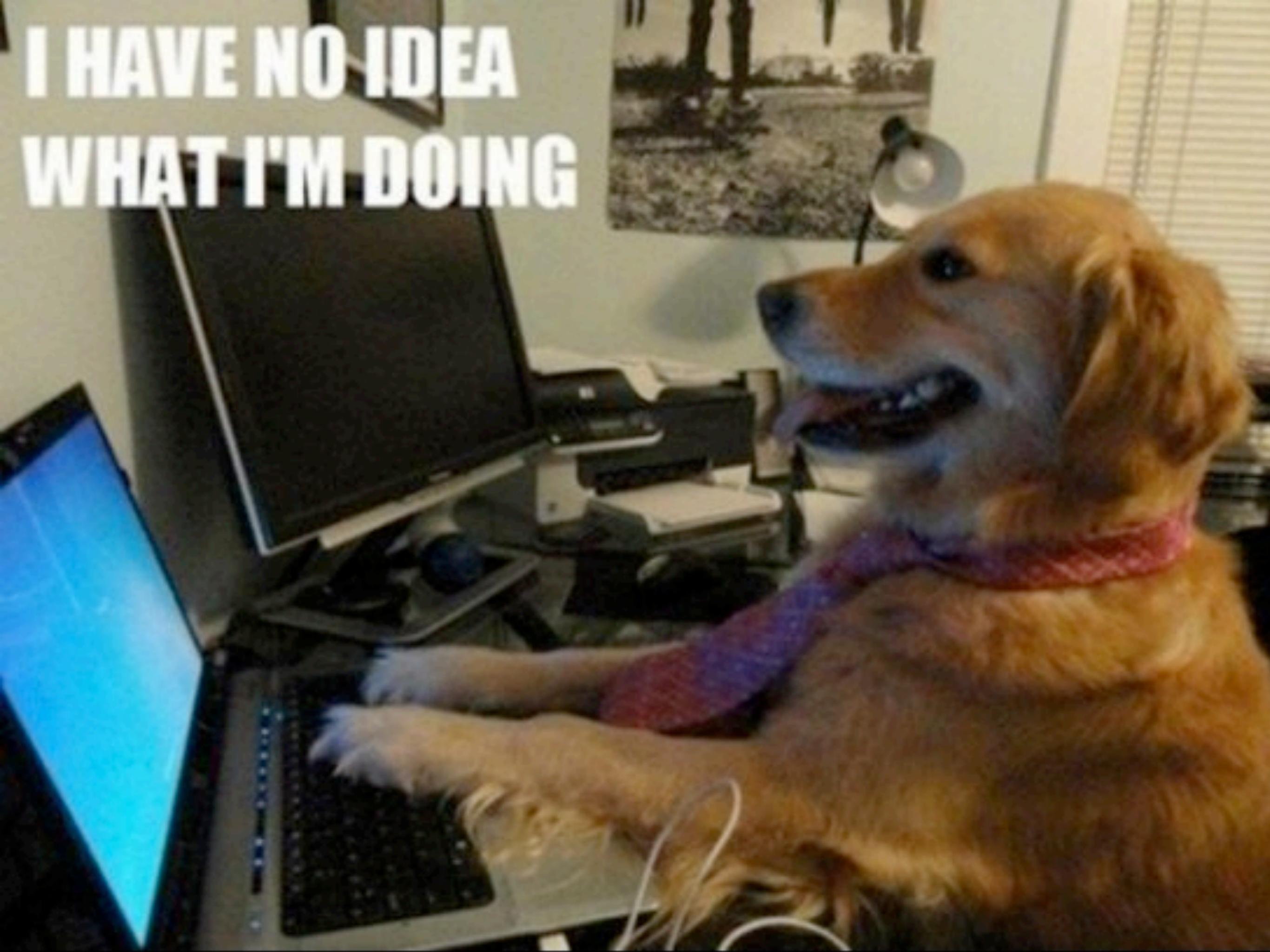
Started GET "/" for 213.26.184.250 at 2012-02-01 02:40:05 +0100
Processing by Concepts::HierarchicalController#index as */
  Redirected to http://iqvac.innoq.com/en/hierarchical_concepts.html
Filter chain halted as :ensure_extension rendered or redirected
Completed 302 Found in 1ms (ActiveRecord: 0.1ms)

Started GET "/de/alphabetical_concepts/l.html" for 208.115.113.88 at 2012-02-01 02:48:31 +0100
Processing by Concepts::AlphabeticalController#index as HTML
  Parameters: {"lang"=>"de", "letter"=>"l"}
    Rendered concepts/alphabetical/_pref_labeling.html.erb (0.0ms)
--More--(0%)
```

```
sql_metrics = []

File.foreach('log/production.log') do |line|
  if line =~ /Completed.*ActiveRecord:\s(.+)\ms/
    sql_metrics << $1
  end
end
```

I HAVE NO IDEA
WHAT I'M DOING



ENTER
ACTIVESUPPORT NOTIFICATIONS

SIMPLE

MESSAGING SYSTEM FOR INSTRUMENTING

```
ActiveSupport::Notifications.subscribe do |*args|
  event = ActiveSupport::Notifications::Event.new(*args)
  Rails.logger.debug(event.name)
end
```

```
ActiveSupport::Notifications.subscribe do |name, start, finish, id, payload|
  ...
end
```

```
Connecting to database specified by database.yml

Started HEAD "/" for 127.0.0.1 at 2010-01-01 18:43:46 +0200
Processing by Concepts::HierarchicalController#index as HTML
  start_processing.action_controller
    sql.active_record
      sql.active_record
        sql.active_record
          ConfigurationSetting Load (0.2ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
        sql.active_record
          CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
      sql.active_record
    Redirected to http://0.0.0.0/en/hierarchical_concepts.html
    redirect_to.action_controller
    Filter chain halted as :ensure_extension rendered or redirected
    halted_callback.action_controller
    Completed 302 Found in 18ms ( ActiveRecord: 3.0ms)
  process_action.action_controller

```

CONSUMING BUILTIN RAILS METRICS

EXAMPLE PAGE VIEWS

```
class PageViewMetric < ActiveRecordBase
  attr_accessible :path, :page_duration, :view_duration, :db_duration
end
```

```
iqvoc — tail — 132x44  
Connecting to database specified by database.yml  
  
Started HEAD "/" for 127.0.0.1 at 2012-06-01 18:43:46 +0200  
Processing by Concepts::HierarchicalController#index as HTML  
start_processing.action_controller  
sql.active_record  
sql.active_record  
sql.active_record  
  ConfigurationSetting Load (0.2ms)  SELECT `configuration_settings`.* FROM `configuration_settings`  
sql.active_record  
  CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`  
sql.active_record  
Redirected to http://0.0.0.0/en/hierarchical_concepts.html  
redirect_to.action_controller  
Filter chain halted as :ensure_extension rendered or redirected  
halted_callback.action_controller  
Completed 302 Found in 18ms ( ActiveRecord: 3.0ms)  
process_action.action_controller
```



```
ActiveSupport::Notifications.subscribe "process_action.action_controller" do |*args|
  event = ActiveSupport::Notifications::Event.new(*args)
  PageViewMetric.create! do |metric|
    metric.path = event.payload[:path]
    metric.page_duration = event.payload[:page_duration]
    metric.view_duration = event.payload[:view_duration]
    metric.db_duration = event.payload[:db_runtime]
  end
end
```

id	path	page_duration	view_duration	db_duration	created_at	updated_at
1	/	17.689	NULL	3.487	2012-06-01 09:55:20	2012-06-01 09:55:20
2	/	2.852	NULL	0.274	2012-06-01 09:55:30	2012-06-01 09:55:30
3	/en/hierarchical_concepts.html	901.981	648.594	8.607	2012-06-01 09:55:31	2012-06-01 09:55:31
4	/en/collections.html	522.853	147.794	14.457	2012-06-01 09:55:36	2012-06-01 09:55:36
5	/en/search.html	181.6	68.017	0.84	2012-06-01 09:55:37	2012-06-01 09:55:37
6	/en/users.html	465.688	172.532	2.935	2012-06-01 09:55:39	2012-06-01 09:55:39
7	/en/config.html	406.425	140.396	2.886	2012-06-01 09:55:40	2012-06-01 09:55:40
8	/en/dashboard.html	240.884	69.877	6.983	2012-06-01 09:55:45	2012-06-01 09:55:45
9	/en/concepts/_00000068.html?published=0	451.798	212.078	23.765	2012-06-01 09:55:47	2012-06-01 09:55:47
10	/en/concepts/_00000068/edit.html?published=0	805.192	603.11	29.261	2012-06-01 09:55:52	2012-06-01 09:55:52
11	/en/concepts/_00000068.html?published=0	584.493	NULL	26.997	2012-06-01 09:55:57	2012-06-01 09:55:57
12	/en/concepts/_00000068.html?published=0	342.154	268.435	10.791	2012-06-01 09:55:57	2012-06-01 09:55:57
13	/en/hierarchical_concepts.html	420.296	144.257	8.59	2012-06-01 09:55:59	2012-06-01 09:55:59
14	/en/alphabetical_concepts/a.html	114.062	73.981	6.832	2012-06-01 09:56:01	2012-06-01 09:56:01
15	/en/alphabetical_concepts/b.html	97.729	75.332	6.502	2012-06-01 09:56:03	2012-06-01 09:56:03
16	/en/alphabetical_concepts/c.html	175.195	47.314	6.46	2012-06-01 09:56:04	2012-06-01 09:56:04
17	/en/concepts/chess.html	275.962	153.533	14.234	2012-06-01 09:56:05	2012-06-01 09:56:05
18	/en/concepts/competition_hobbies.html	234.429	104.964	6.835	2012-06-01 09:56:08	2012-06-01 09:56:08
19	/en/dashboard.html	86.969	75.122	1.536	2012-06-01 09:56:09	2012-06-01 09:56:09
20	/en/search.html?utf8=%E2%9C%93&t=labeling-skos-base&qt=ex...	320.434	200.112	10.999	2012-06-01 09:56:16	2012-06-01 09:56:16
21	/	19.008	NULL	2.102	2012-06-01 10:00:29	2012-06-01 10:00:29
22	/de/concepts/_00000068.html?published=0	858.521	334.605	27.58	2012-06-01 10:00:29	2012-06-01 10:00:29
23	/de/concepts/_00000068.html?published=0	843.719	327.987	28.724	2012-06-01 10:00:31	2012-06-01 10:00:31
24	/de/concepts/_00000068.html?published=0	867.374	362.444	27.159	2012-06-01 10:00:33	2012-06-01 10:00:33
25	/de/hierarchical_concepts.html	424.029	146.423	7.775	2012-06-01 10:00:34	2012-06-01 10:00:34
26	/de/alphabetical_concepts/a.html	489.569	188.706	14.105	2012-06-01 10:00:37	2012-06-01 10:00:37
27	/de/alphabetical_concepts/a.html	490.581	188.497	13.493	2012-06-01 10:00:38	2012-06-01 10:00:38
28	/de/untranslated_concepts/a.html	117.041	68.918	6.738	2012-06-01 10:00:38	2012-06-01 10:00:38
29	/de/hierarchical_concepts.html	71.527	63.069	0.735	2012-06-01 10:00:40	2012-06-01 10:00:40
30	/de/hierarchical_concepts.html	41.157	34.146	0.662	2012-06-01 10:00:40	2012-06-01 10:00:40
31	/de/hierarchical_concepts.html	40.905	33.89	0.697	2012-06-01 10:00:41	2012-06-01 10:00:41
32	/de/untranslated_concepts/a.html	236.402	215.042	11.642	2012-06-01 10:00:43	2012-06-01 10:00:43
33	/de/untranslated_concepts/a.html	67.65	56.432	5.712	2012-06-01 10:00:43	2012-06-01 10:00:43
34	/de/untranslated_concepts/a.html	82.842	70.597	5.169	2012-06-01 10:00:44	2012-06-01 10:00:44

BUILTIN RAILS INSTRUMENTATION

ACTIONCONTROLLER

start_processing.action_controller
★ process_action.action_controller
send_file.action_controller
redirect_to.action_controller
halted_callback.action_controller

CACHE

cache_read.active_support
cache_generate.active_support
cache_fetch_hit.active_support
cache_write.active_support
cache_delete.active_support

ACTIONMAILER

deliver.action_mailer
receive.action_mailer

ACTIONVIEW

render_template.action_view
render_partial.action_view

ACTIVERECORD

sql.active_record

EXAMPLE SQL QUERIES

```
class QueryMetric < ActiveRecord::Base
  attr_accessible :name, :duration
end
```

```
ActiveSupport::Notifications.subscribe(/^sql\./) do |*args|
  event = ActiveSupport::Notifications::Event.new(*args)
  blacklist = ['CACHE', 'SCHEMA', nil] # nil goes for inserts and updates
  unless blacklist.include?(event.payload[:name])
    QueryMetric.create!(name: event.payload[:name], duration: event.duration)
  end
end
```

BUILTIN RAILS INSTRUMENTATION

ACTIONCONTROLLER

start_processing.action_controller
process_action.action_controller
send_file.action_controller
redirect_to.action_controller
halted_callback.action_controller

CACHE

cache_read.active_support
cache_generate.active_support
cache_fetch_hit.active_support
cache_write.active_support
cache_delete.active_support

ACTIONMAILER

deliver.action_mailer
receive.action_mailer

ACTIONVIEW

render_template.action_view
render_partial.action_view

ACTIVERECORD

★ sql.active_record

CREATING CUSTOM NOTIFICATIONS

1. INSTRUMENTATION

```
ActiveSupport::Notifications.instrument 'iqvoc.concepts.published'
```

2. SUBSCRIPTION

```
ActiveSupport::Notifications.subscribe 'iqvoc.concepts.published' do |*args|
  event = ActiveSupport::Notifications.new(*args)

  event.name # => 'iqvoc.concepts.published'
  event.time # => start time object
  event.end # => finished time object
  event.duration # => convenience method
  event.payload # => optional hash
end
```

REGEXP SUBSCRIPTION

```
ActiveSupport::Notifications.subscribe(/^iqvoc/) do |*args|
  event = ActiveSupport::Notifications.new(*args)
  puts event.name
end

# => iqvoc.concepts.created
# => iqvoc.concepts.published
# => iqvoc.concepts.branched
# ...
```

UNSUBSCRIBING

AVOID POLLUTION OF YOUR METRICS SYSTEM

```
subscriber = ActiveSupport::Notifications.subscribe(/noisy_instrument/) do |*args|  
end
```

```
ActiveSupport::Notifications.unsubscribe(subscriber)
```

TEMPORARY SUBSCRIPTIONS

```
callback = lambda { |*args| ... }
ActiveSupport::Notifications.subscribed(callback, "verbose_instrument") do
  ...
end
```

**GOT DATA?
DO SOMETHING WITH IT**

FEED IT TO

FREE TOOLS

GRAPHITE + DASHBOARD SOLUTIONS

COMMERCIAL TOOLS

LIBRATO METRICS

NEWRELIC

SCOUT

KISS METRICS

FEED IT TO

BOTS

HUBOT

CAMPFIRE

IRC

HIPCHAT

HOW TO FEED

PUBLIC



Code

Network

Pull Requests 1

Issues 3

Wiki

Graphs

branch: master ▾

Files

Commits

Branches 2

Tags 20

Downloads

metriks / README.md

**eric** 3 months ago Add Graphite and Librato Metrics reporters

1 contributor

100644 | 358 lines (232 sloc) | 7.305 kb

[Edit this file](#) [Raw](#) [Blame](#) [History](#)

Metriks Client

This is an experiment in making a threadsafe, low impact library to measure aspects of your ruby.

The library is very much a work-in-progress. It is being developed as I find needs while developing [Papertrail](#).

Installing

The API is still in flux, but you can add this to your project by installing the gem.

To install, add this to your `Gemfile`:

```
gem 'metriks'
```

and re-run `bundle`.

Metric API Overview

Counters

Basic atomic counter. Used as an underlying metric for many of the other more advanced metrics.

METRIKS

METRICS LIBRARY FOR RUBY

THREADSAFE

NICE API

SUPPORT FOR MULTIPLE BACKENDS

METRIKS REPORTERS

GRAPHITE REPORTER

```
reporter = Metriks::Reporter::Graphite.new 'localhost', 3004  
reporter.start
```

METRIKS REPORTERS

LOGGER REPORTER

```
reporter = Metriks::Reporter::Logger.new(logger: Logger.new('log/metrics.log'))
reporter.start
```

METRIKS REPORTERS

LIBRATO METRICS REPORTER

```
reporter = Metriks::Reporter::LibratoMetrics.new('email', 'token')  
reporter.start
```

METRIKS API

COUNTERS

```
Metriks.counter('iqvoc.page_views').increment
```

METRIKS API

METERS

```
meter = Metriks.meter('my_app.github_api_requests')
meter.mark

puts "rate: #{meter.mean_rate}/sec"
```

METRIKS API

TIMERS

```
timer = Metriks.timer('paypal_api_requests')
timer.time do
  damn_slow_paypal_api_request
end
```

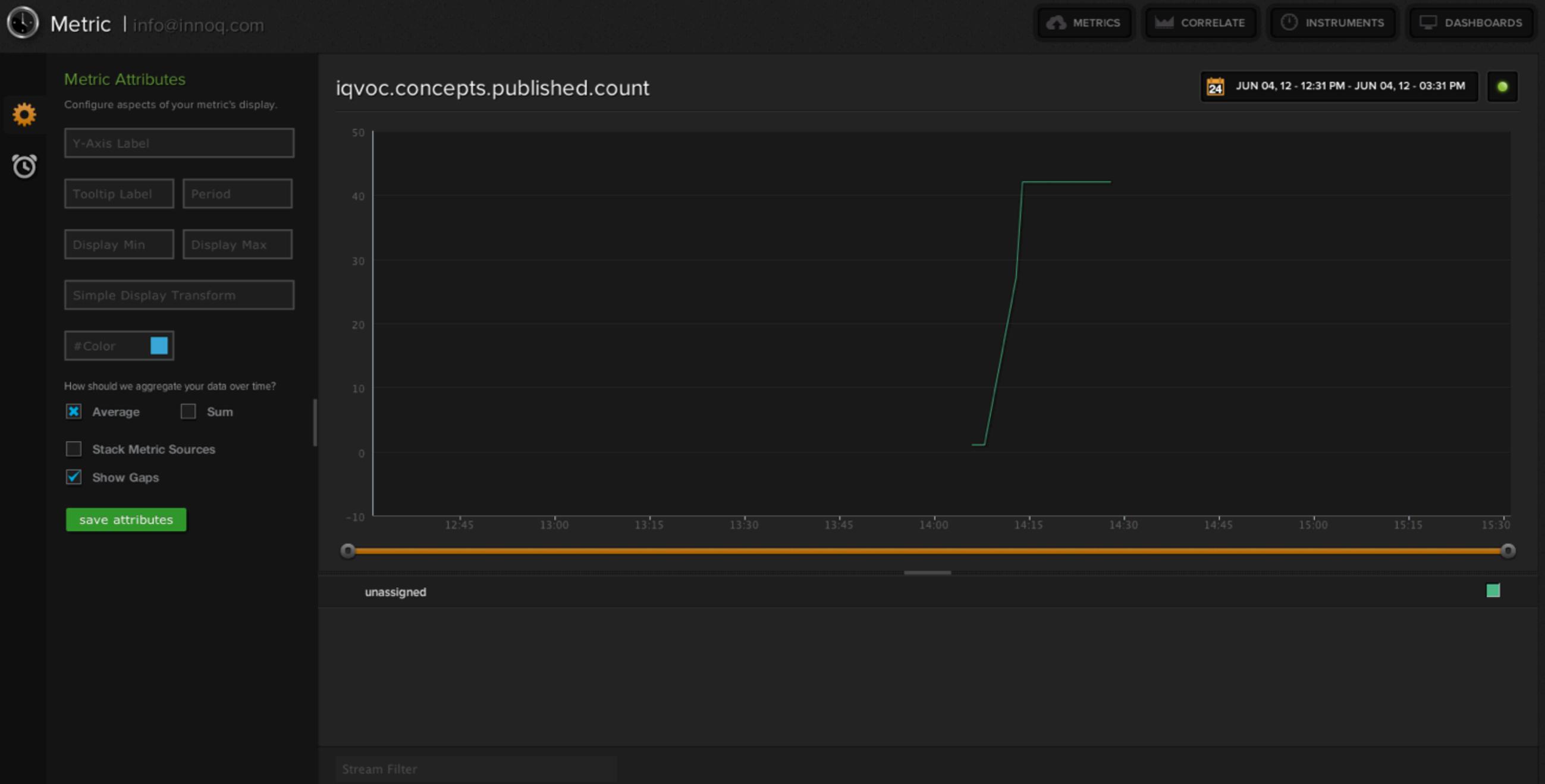
METRIKS EXAMPLE

```
reporter = Metriks::Reporter::LibratoMetrics.new('foo@bar.local', '314c7284f190')
reporter.start

ActiveSupport::Notifications.subscribe 'iqvoc.concepts.published' do |*args|
  Metriks.meter('iqvoc.concepts.published').mark
end

ActiveSupport::Notifications.subscribe 'costly_operation' do |*args|
  event = ActiveSupport::Notifications::Event.new(*args)
  Metriks.timer('costly_operation').update(event.duration)
end
```

LIBRATO METRICS



WRITE YOUR OWN REPORTER

The screenshot shows a GitHub repository page for the 'eric / metriks' project. The repository is public and has 174 stars, 12 forks, and 20 tags. The 'Code' tab is selected, showing a list of files: graphite.rb, librato_metrics.rb, logger.rb, proc_title.rb, and riemann.rb. The commits are listed below, all made by user 'eric' a month ago except for proc_title.rb which was 3 months ago. The commits are:

name	age	message
graphite.rb	a month ago	Metriks::Reporter::Graphite requires socket [timurbatyshin]
librato_metrics.rb	a month ago	Provide some accessors for reporters that make sense [eric]
logger.rb	a month ago	Provide some accessors for reporters that make sense [eric]
proc_title.rb	3 months ago	Fix on_error handlers so they actually work. [myronmarston]
riemann.rb	3 months ago	Riemann reporter. [aphyr]

LAST BUT NOT LEAST

System Metrics



Rails 3 Engine for monitoring app performance via ActiveSupport::Notifications

Screenshots Documentation Code

System Metrics is a Rails 3 Engine providing a clean web interface to performance metrics instrumented with ActiveSupport::Notifications. It will collect and display the notifications baked into Rails and any additional custom ones you add using ActiveSupport::Notification#instrument.

process_action.action_controller:3228
[request.rack](#) > process_action.action_controller

ID	Name	Identifier	Duration (ms)
3235	render_template.action_view	layouts/application	209.412
3236	→ sql.active_record	BlurTable Load	0.554
3237	→ render_partial.action_view	RAILS_ROOT/app/views/blur_queries/_query_table.html.haml	32.281
3238	→ → sql.active_record	BlurQuery Load	2.014
3239	→ → render_collection.action_view	collection	0.007
3240	→ sql.active_record	Zookeeper Load	0.382
3231	sql.active_record	Zookeeper Load	1.513

BEST PRACTICES

DEVELOPMENT != PRODUCTION

```
Started GET "/en/dashboard.html" for 127.0.0.1 at 2012-06-04 15:44:26 +0200
  ConfigurationSetting Load (0.3ms)  SELECT `configuration_settings`.* FROM `configuration_settings` WHERE `configuration_settings`.`id` = 1
Processing by DashboardController#index as HTML
Parameters: {"lang"=>"en"}
CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
User Load (0.3ms)  SELECT `users`.* FROM `users` WHERE `users`.`id` = 1 LIMIT 1
CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
Concept::SKOS::Base Load (0.6ms)  SELECT `concepts`.* FROM `concepts` WHERE `concepts`.`published_at` IS NULL OR `concepts`.`follow_up` IS NOT NULL)
----- Started view rendering -----
Rendered partials/concept/_new_link_base.html.erb (2.2ms)
Rendered dashboard/_sidebar.html.erb (5.7ms)
Rendered dashboard/index.html.erb within layouts/application (17.5ms)
CACHE (0.0ms)  SELECT `configuration_settings`.* FROM `configuration_settings`
Rendered layouts/_controls.html.erb (3.5ms)
Rendered layouts/_navigation.html.erb (8.8ms)
Completed 200 OK in 462ms (Views: 180.2ms | ActiveRecord: 8.2ms)
```

```
Started GET "/en/dashboard.html" for 127.0.0.1 at 2012-06-04 15:47:03 +0200
Processing by DashboardController#index as HTML
Parameters: {"lang"=>"en"}
Rendered partials/concept/_new_link_base.html.erb (0.7ms)
Rendered dashboard/_sidebar.html.erb (2.7ms)
Rendered dashboard/index.html.erb within layouts/application (8.9ms)
Rendered layouts/_controls.html.erb (1.9ms)
Rendered layouts/_navigation.html.erb (5.0ms)
Completed 200 OK in 46ms (Views: 40.9ms | ActiveRecord: 0.6ms)
```

ASYNC NOTIFICATIONS

SYNC QUEUE IS DEFAULT (FANOUT)
DECOPUPLE SLOW SUBSCRIPTIONS OF REQ/RESP-CYCLE
USE THREADS/REAL QUEUE

```
ActiveSupport::Notifications.notifier  
# => ActiveSupport::Notifications::Fanout
```

```
ActiveSupport::Notifications.notifier = MyQueue
```

STORE SUBSCRIPTIONS IN A SINGLE PLACE

DON'T REBUILD LIBRATO/NEWRELIC

DON'T OVERPROFILE THINGS

TRACK WHAT MATTERS

TALK TO YOUR ADMIN

DERIVE BUSINESS VALUE

SCALE UP IN CROWDED TIMES

IDENTIFY SLOW VIEWS/QUERIES

CORRELATE BOTTLENECKS AND CONVERSIONS



USE DASHBOARDS



THANK YOU!
QUESTIONS?

@mrreynolds