

## **SWARMFRAME**

## « Monitor Your Robot »

## What is Monitor Your Robot

What	SWARMON project	SWARMON internship	MYR
Who	5 students (Benoit and 4 others)	2 students (Benoit and Bastien)	2 students (Benoit and Bastien)
When	1 year	2 months	3 weeks
Result	Adapter Mass: Toylor	Monitor Your Robot  Home Real-Time Replay Contact  Welcome on our site!  ***********************************	Real time + Generator

#### Plan:

#### I. Methods of work

Agile Development MYR Quality Commitment in MYR

#### II. Improvements since SWARMON

Changes in the Map rendering Example of implementation Improvement in the CSS and the Layout Improvement in the database

### III. New technologies in MYR

How to use Ajax in Rails Website generator Impact on performance

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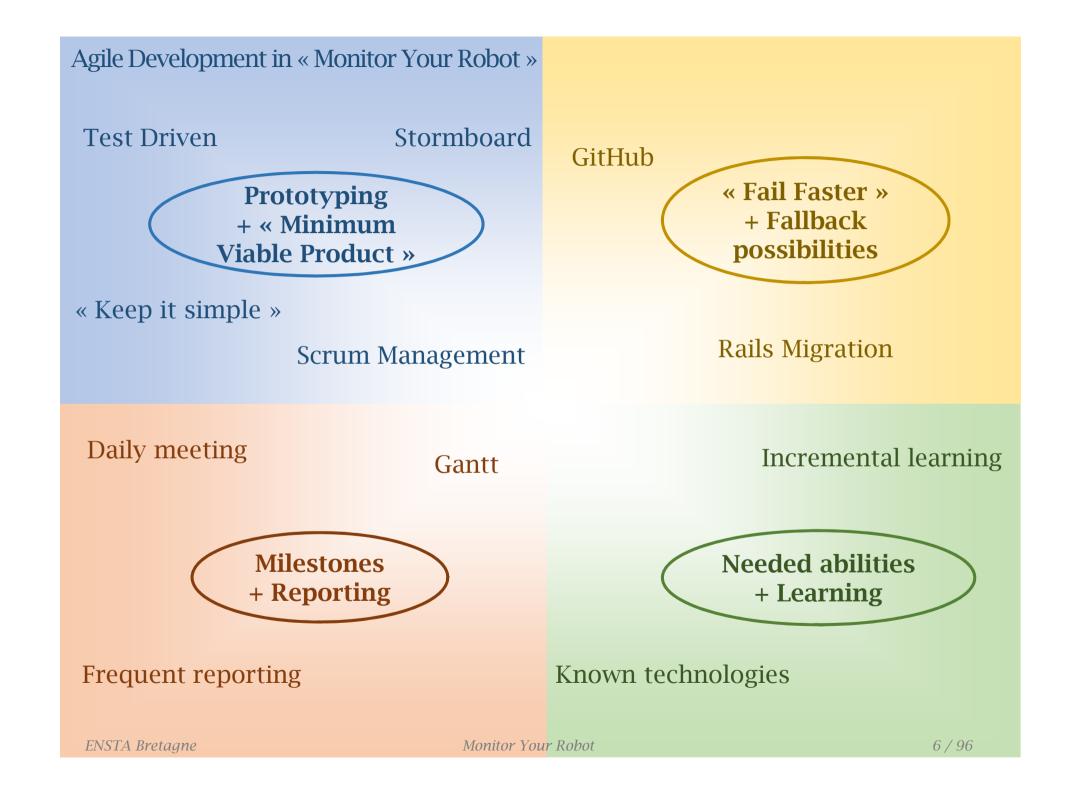
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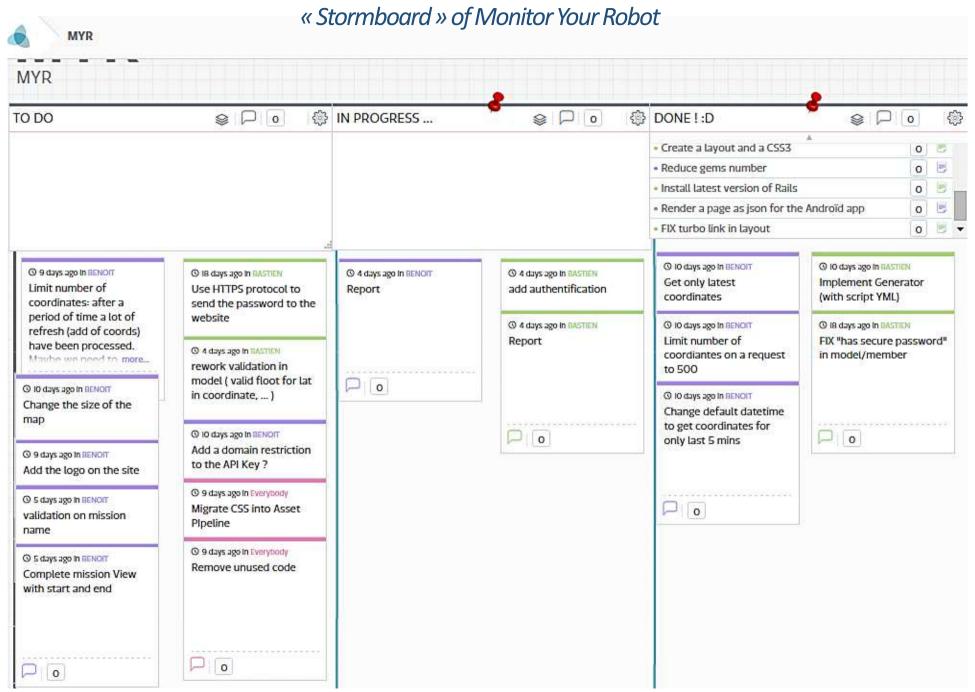
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# Agile development in "Monitor Your Robot"





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# "Monitor Your Robot" Commitment of Quality

#### « Monitor Your Robot » Commitment of quality Shared pages Jquery Readable Code Clear Interface + User-friendly with languages **SWARMAPP** Yaml Only useful gems Gestion of errors Rake script Use Google Map API V3 **Asset Pipeline Dedicated** Beautiful and **Jquery Library** effective methods for Google Map Shared functions Non obtrusive JavaScript ENSTA Bretagne Monitor Your Robot 9/96

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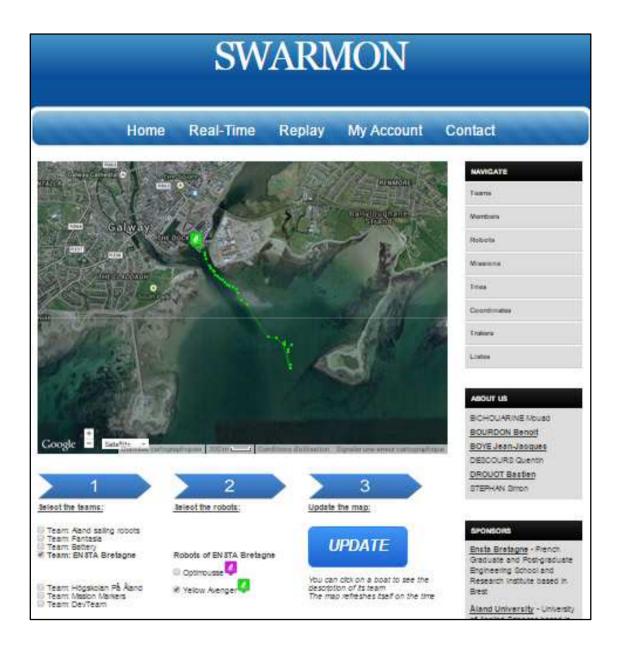
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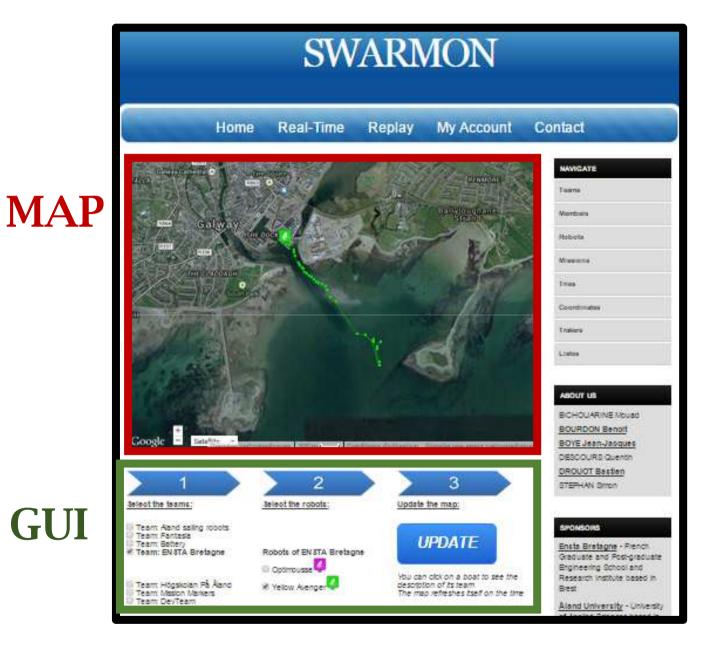
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# Changes in the map rendering

#### Aspect of the « Real-Time » page of SWARMON





## **VIEW** or **PAGE**

**GUI** 

## **SWARMON**

#### Gem Gmap4rails

Fast to implement across Rails 💠 💠 Less customizable Numerous calls to Google Map

#### **Refresh**

Add again all the coordinates

#### **Programming**

Jquery on each partial page Disable Turbolinks

#### **Graphical User Interface**

Dynamic with Ajax and .erb Allow to chose teams / robots 🗛 🗸 Cookies "shared" with Replay



### **Monitor Your Robot**

#### **Use of Google Map API**

Easy to handle when knowing Rails ++ Completely customizable Complete total on JavaScript calls 👍

#### Refresh

Only add the latest coordinates

#### **Programming**

Unobstrusive JavaScript ++ Asset pipeline + Turbolinks ###

#### **Graphical User Interface**

Current mission + description + Fully ready to display "markers" 📥 🚓 Other parts will be kept

#### Other changes in MYR

Shared pages with SWARMAPP Clean error management with HTML code

New database which adds the table « Markers » Creation of a tool to add « mission's markers »

New design for the "Real-Time" page

Use of a website generator New CSS and layout I. Methods of work
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# Example of implementation

## Interface with SWARMAPP

Specific URLs have been created:

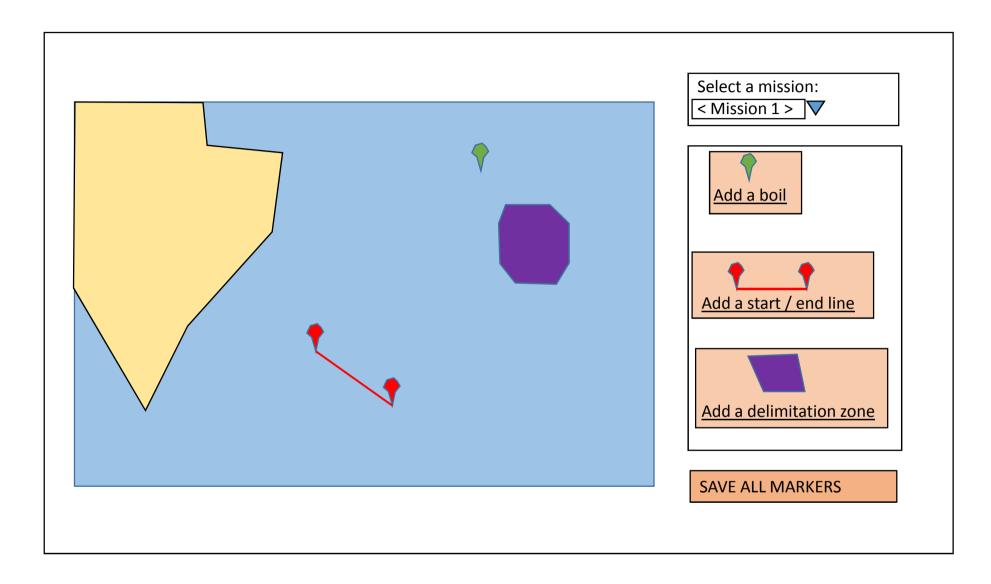
```
/what
/getCurrentMission
/getMissionLength
/getCoordsSince
/getCoordsSince?datetime=...
/getCoordsBetween?
/getCoordsBetween?tstart=...=tend=...
```

### Specific URLs have been created:

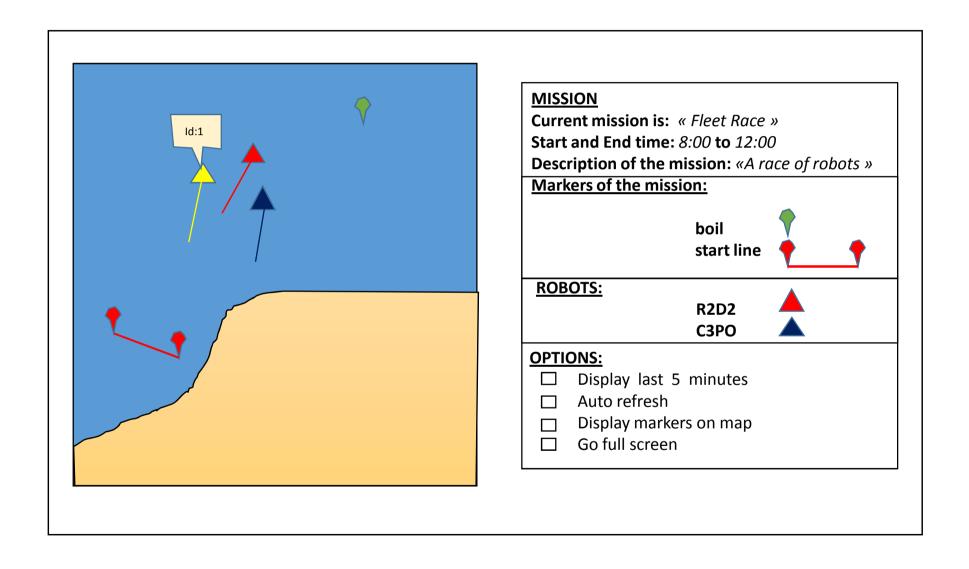
```
/what
           (proof that the website is compatible with the application)
/getCurrentMission
                                    (return the current mission)
/getMissionLength
                              (start and end of the current mission)
/getCoordsSince
                                          (if no parameter: start
/getCoordsSince?datetime=...
                                          of the current mission)
                                      (if no parameter: start en end
/getCoordsBetween?
/getCoordsBetween?tstart=...=tend=... of the current mission)
```

# Creation of a tool to create « mission's markers »

## Administration tool to add markers to a specific mission



#### Display of markers in the newly designed « real-time » page



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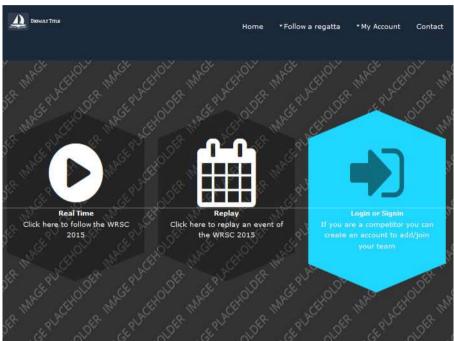
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# Improvement in the CSS and the Layout

- CSS 2
- Html 3
- Static layout



- CSS 3
- ╊ Html 4
- Customizable layout









ALAND UNIVERSITY

#### ENSTA BRETAGNE

French Graduate and Post-graduate Engineering School and Research Institute based in Brest WRSC

World Robotic Sailing Championship University of Applied Sciences based in Åland

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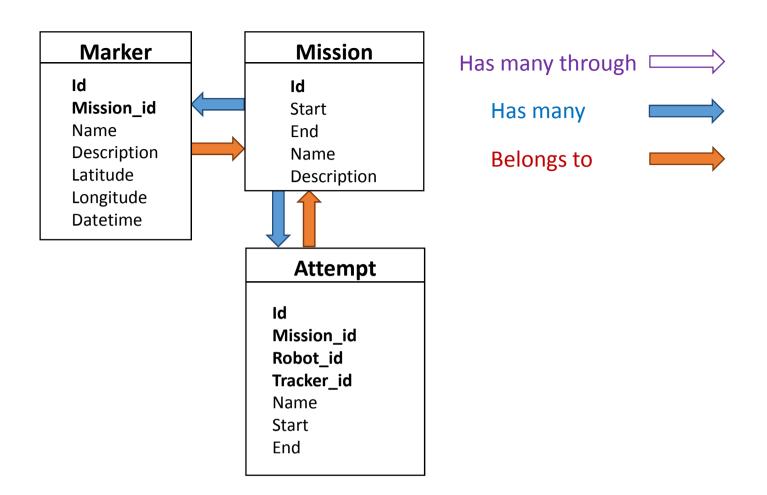
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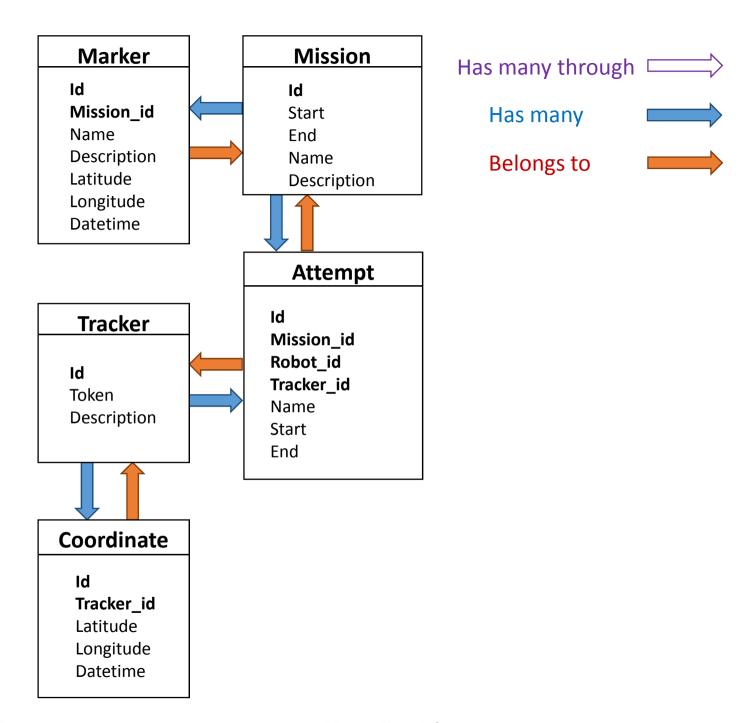
# Improvement in the data base

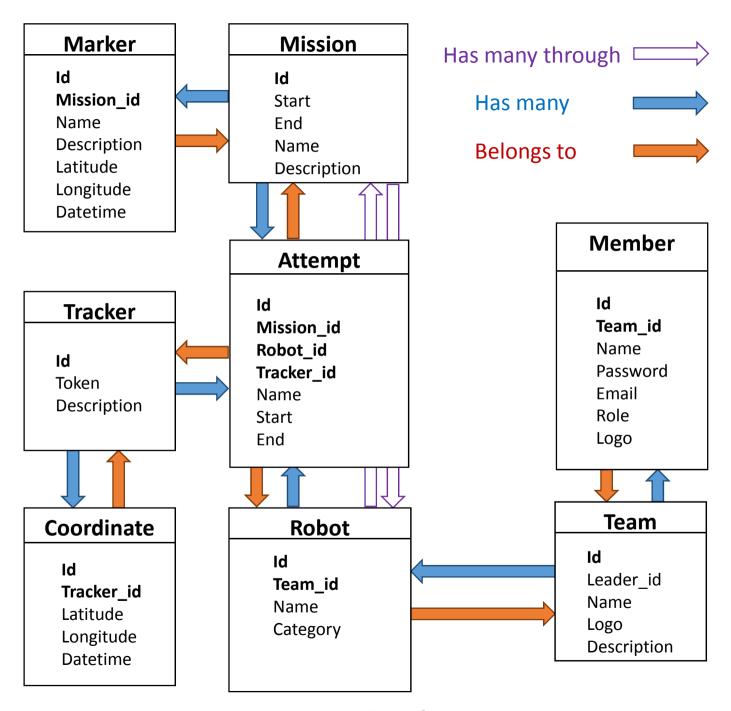


#### **Attempt**

Id
Mission\_id
Robot\_id
Tracker\_id
Name
Start
End







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# Ajax in Ruby on Rails

Quick reminders about Ruby on Rails

Ruby on Rails is a web application framework ...

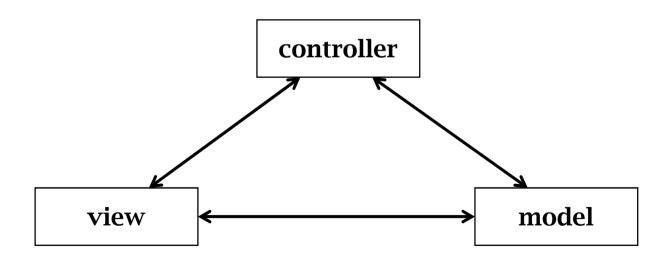
Quick reminders about Ruby on Rails

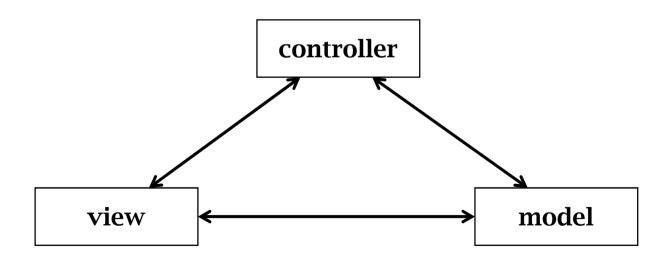
Ruby on Rails is a web application framework ...

...based on the MVC pattern.

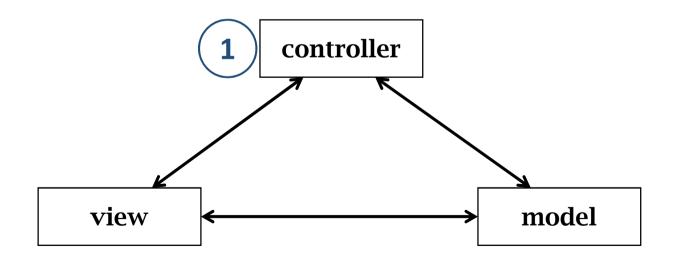
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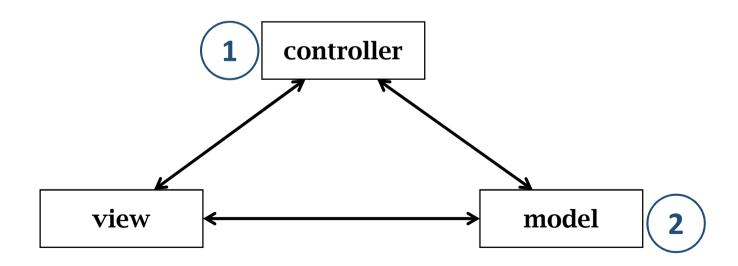




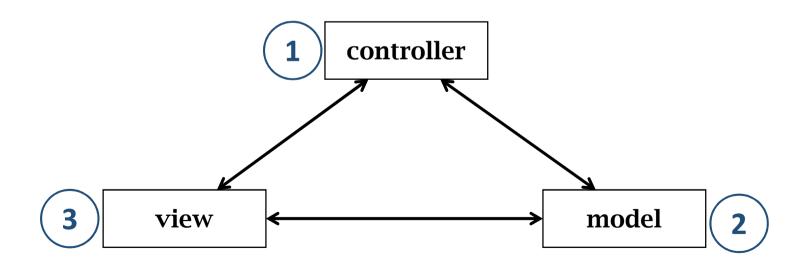
1) The controller calls the method related to the URL



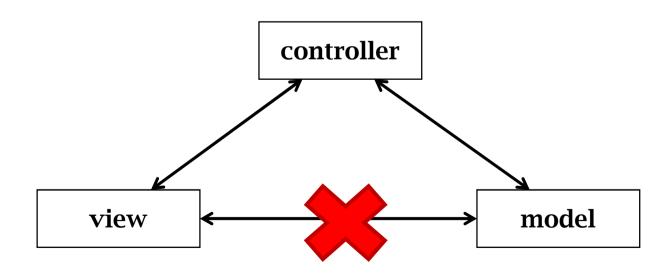
- 1) The controller calls the method related to the URL
- 2) The model extracts the needed data from the database



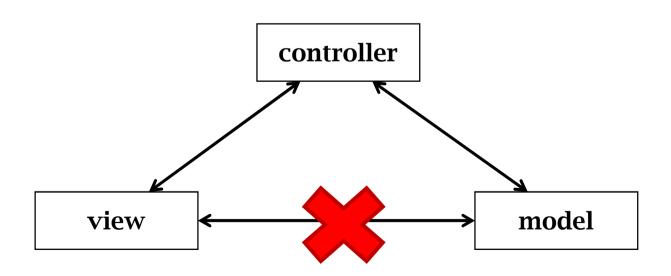
- 1) The controller calls the method related to the URL
- 2) The model extracts the needed data from the database
- 3) The controller uses this data to generate the view



It means that the view can not access to the model directly.

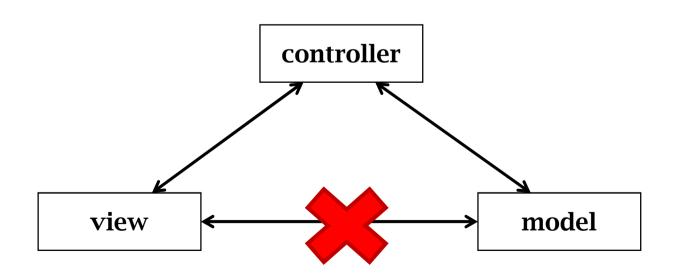


This is why we need ...



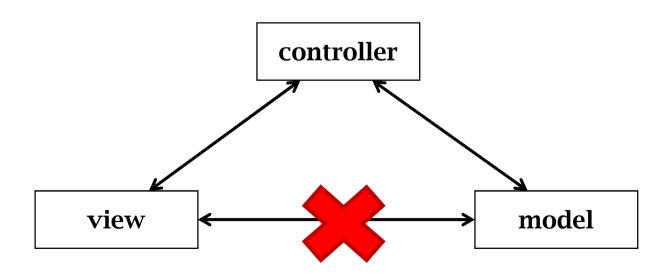
## This is why we need





## This is why we need

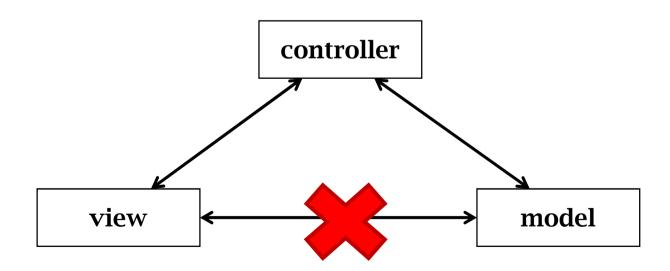




### This is why we need



Ajax changes the content of page without reloading it.



Two possible uses for Ajax:

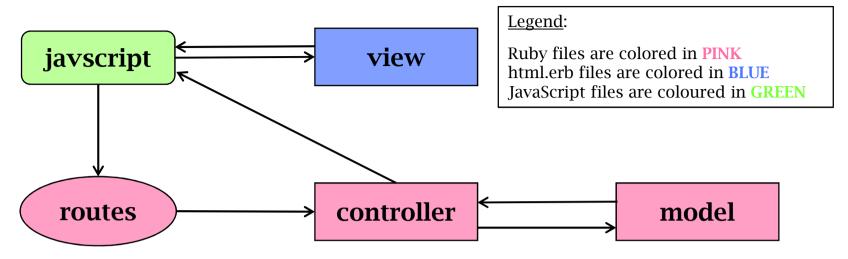
Two possible uses for Ajax:

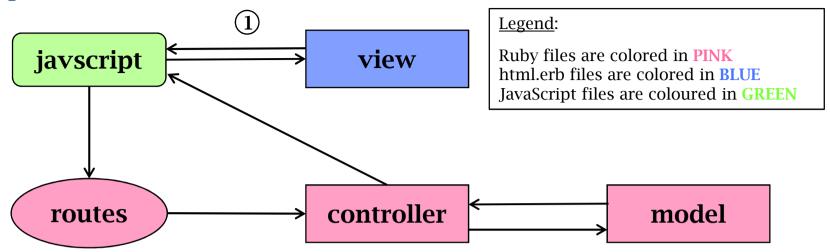
- to get remote data

Two possible uses for Ajax:

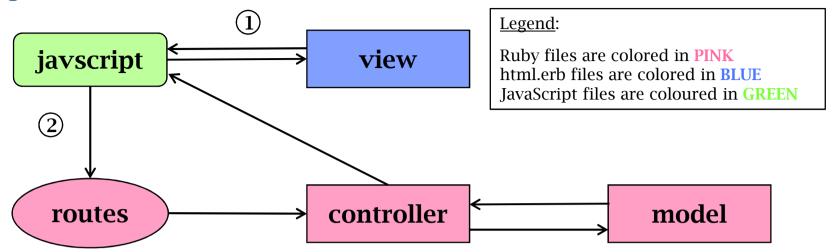
- to get remote data
- to create a dynamic Graphical User Interface

# Ajax to get remote data

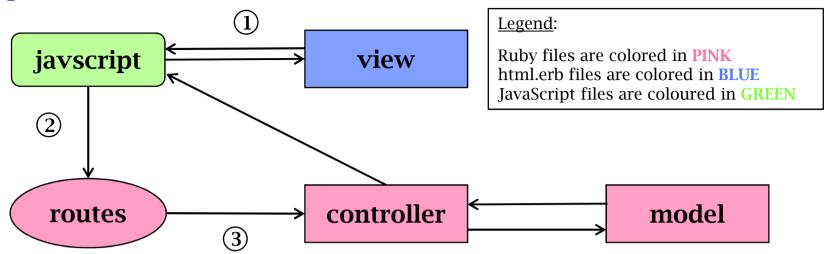




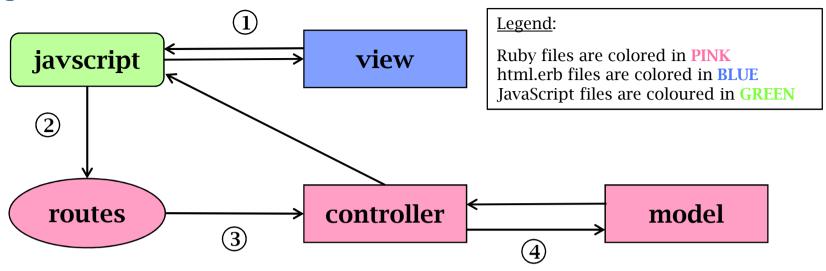
1 The view receives an event which triggers an action of the jQuery script.



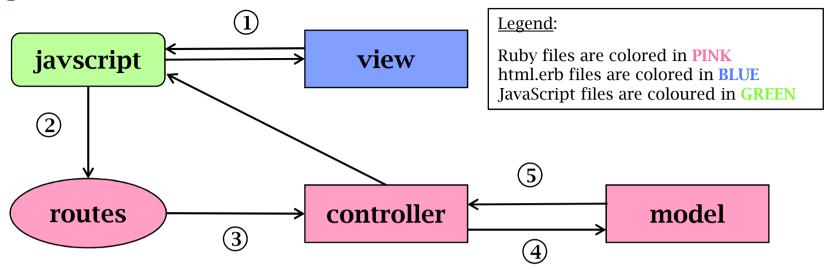
- $\bigcirc$  The view receives an event which triggers an action of the jQuery script.
- 2 The Ajax request from the jQuery script calls a URL.



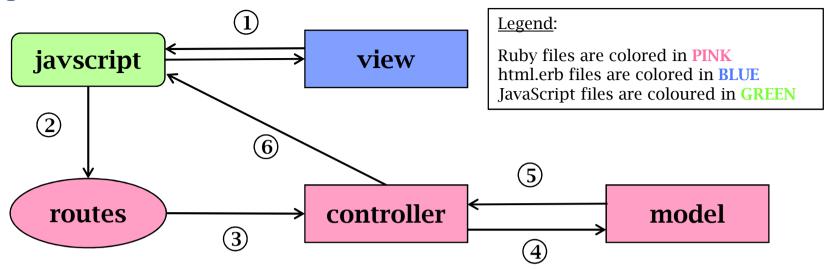
- $\bigcirc$  The view receives an event which triggers an action of the jQuery script.
- 2 The Ajax request from the jQuery script calls a URL.
- (3) The routes.rb file establishes a link between the provided URL and the corresponding controller action.



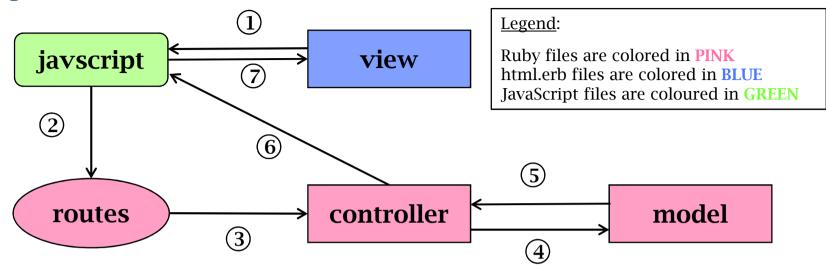
- 1 The view receives an event which triggers an action of the jQuery script.
- (2) The Ajax request from the jQuery script calls a URL.
- 3 The routes.rb file establishes a link between the provided URL and the corresponding controller action.
- The method of the controller processes its actions. The controller can retrieve data from the database by directly calling Ruby Classes.



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- (5) The ActiveRecord:: ORM retrieves the data by using SQL requests and send them back to the controller as a Ruby Object.

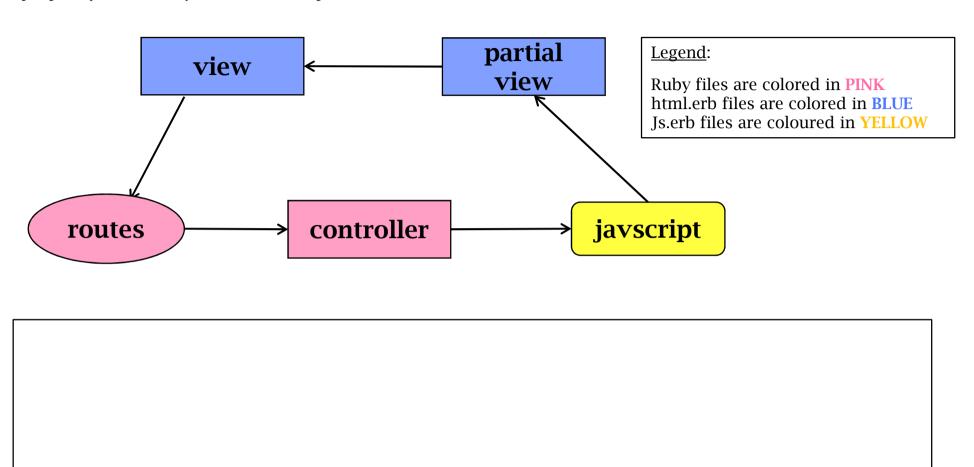


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- **6** The controller send the data back to the jQuery script using JSON format.

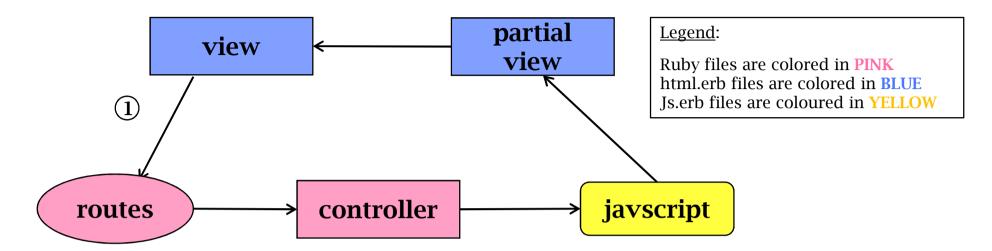


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- (5) The ActiveRecord:: ORM retrieves the data by using SQL requests and send them back to the controller as a Ruby Object.
- **6** The controller send the data back to the jQuery script using JSON format.
- ${ \overline{ \mathcal{O} } }$  The jQuery script uses the retrieved data to change the content of the web page.

# Ajax to create a dynamic Graphical User Interface

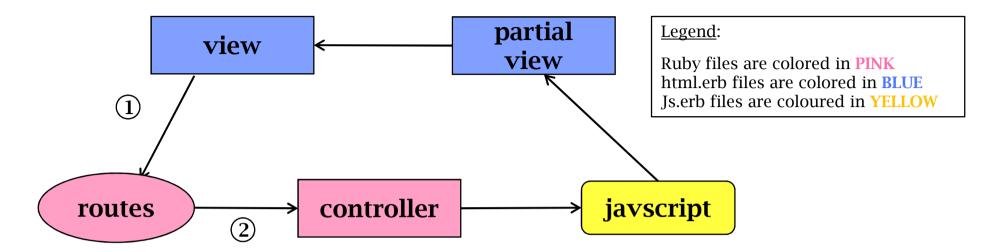


#### Ajax for dynamic Graphical User Interface



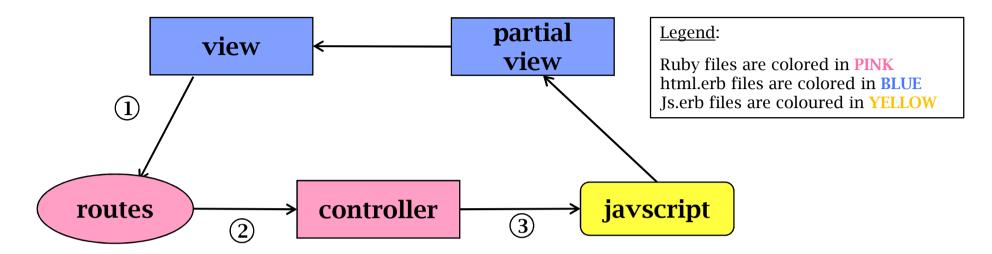
1 The view receives an event which triggers an Ajax action (remote: true).

#### Ajax for dynamic Graphical User Interface

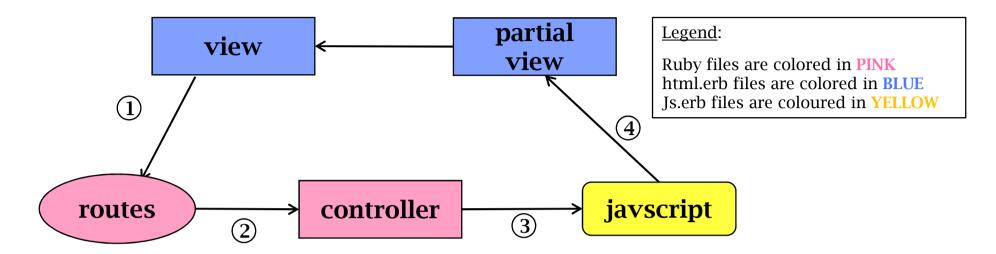


- 1 The view receives an event which triggers an Ajax action (remote: true).
- The routes.rb file uses the given action name to find the corresponding method and controller.

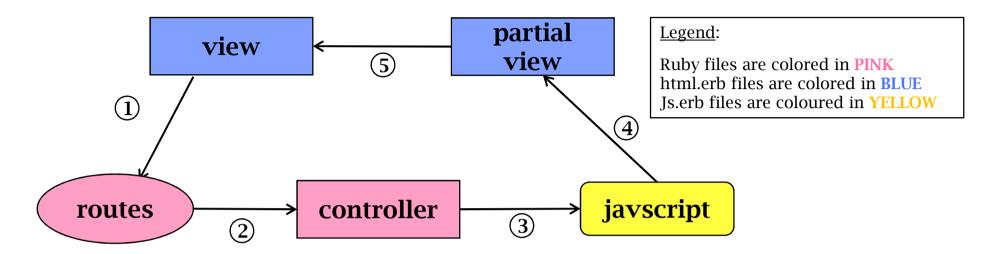
#### Ajax for dynamic Graphical User Interface



- 1 The view receives an event which triggers an Ajax action (remote: true).
- The routes.rb file uses the given action name to find the corresponding method and controller.
- The controller can do some preprocessing but it can also do nothing at all. In fact the method in the controller is just needed to respect the MVC template.



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- This jQuery script directly replaces a <div> in the original html.erb with a piece of code from another html.erb file.



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- The routes.rb file uses the given action name to find the corresponding method and controller.
- The controller can do some preprocessing but it can also do nothing at all. In fact the method in the controller is just needed to respect the MVC template.
- This jQuery script directly replaces a <div> in the original html.erb with a piece of code from another html.erb file.
- This second html.erb file is named "partial" as it is only a partial part of the final rendered web page. Its name must start with an underscore or Rails will not recognize it as a "partial".

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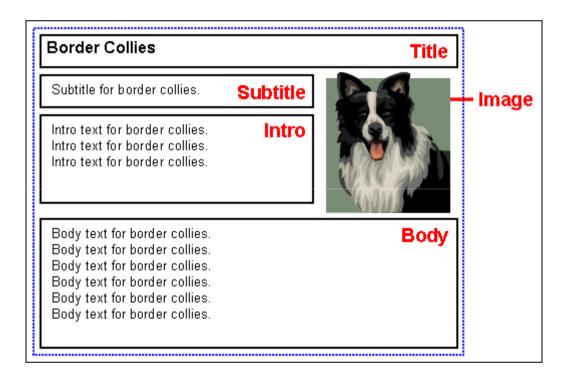
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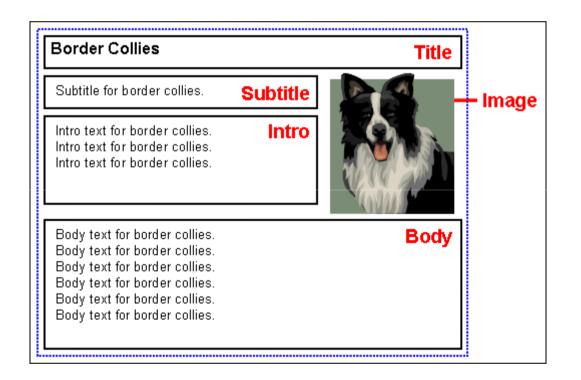
## Website generator

## Step by step



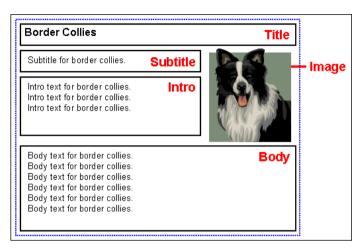






# Static template <html> <h1> This is an example </h1> <h1><%= myVar %> </h1> <% for i in 0..42 %> <%= puts i%> <% end %> </html>



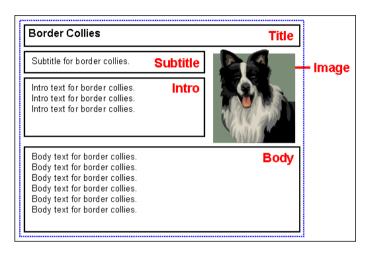


Title = "Lost dog"
Subtitle = "42 \$ cash reward"

Intro = "Last seen today"

Body = "Call 911 for more information"





Static template
<html>
<h1> This is an example </h1>
<h1><%= myVar %> </h1>
<% for i in 0..42 %>
<%= puts i%>
<% end %>
</html>

Title = "Lost dog"
Subtitle = "42 \$ cash reward"
Intro = "Last seen today"
Body = "Call 911 for more information"

#### **YAML**

myVar: "This is another example"



#### DES VOGELFÄNGER - PAPAGENO

THE MAGIC FLUTE / LA FLÛTE ENCHANTÉE W.A. Mozart





#### DES VOGELFÄNGER - PAPAGENO

THE MAGIC FLUTE / LA FLÛTE ENCHANTÉE

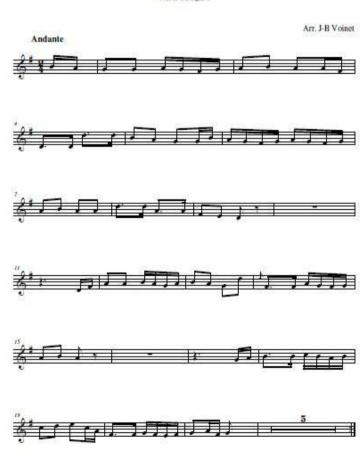


```
require 'yaml'
require 'erb'
puts "config static.rb Start"
PATHFILE YAML = "lib/generator/config variables/"
PATHFILE IN ="lib/generator/templates/statics/"
PATHFILE OUT = "app/views/static pages/"
PATHFILE OUT LAYOUT = "app/views/layouts/"
FILENAME YAML = "config static.yaml"
data = YAML::load(File.open(PATHFILE YAML+FILENAME YAML))
files in = PATHFILE IN+"*"
Dir.glob(files in).each do | file path|
    file path = Pathname.new(file path)
    file name = file path.basename
    if file name.extname == ".erb" # if file name is an erb file
        inputfile = File.open(file_path)
        if file name.to s == "application.html.erb"
            outfile = File.open(PATHFILE OUT LAYOUT+file name.to s, "w")
            outfile = File.open(PATHFILE OUT+file name.to s, "w")
        renderer = ERB.new(inputfile.read)
        output = renderer.result()
        outfile.write(output)
        outfile.close
        inputfile.close
puts "config log.rb End"
```



#### DES VOGELFÄNGER - PAPAGENO

THE MAGIC FLUTE / LA FLÛTE ENCHANTÉE
WA. Mozart



```
require 'yaml'
require 'erb'
puts "config static.rb Start"
PATHFILE YAML = "lib/generator/config variables/"
PATHFILE IN ="lib/generator/templates/statics/"
PATHFILE OUT = "app/views/static pages/"
PATHFILE OUT LAYOUT = "app/views/layouts/"
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data = YAML::load(File.open(PATHFILE YAML+FILENAME YAML))
files in = PATHFILE IN+"*"
Dir.glob(files in).each do | file path|
    file path = Pathname.new(file path)
    file name = file path.basename
    if file name.extname == ".erb" # if file name is an erb file
        inputfile = File.open(file_path)
        if file name.to s == "application.html.erb"
            outfile = File.open(PATHFILE OUT LAYOUT+file name.to s, "w")
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        outfile.write(output)
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        inputfile.close
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```



#### DES VOGELFÄNGER - PAPAGENO

THE MAGIC FLUTE / LA FLÛTE ENCHANTÉE
W.A. Mozari



**Ruby Script** 

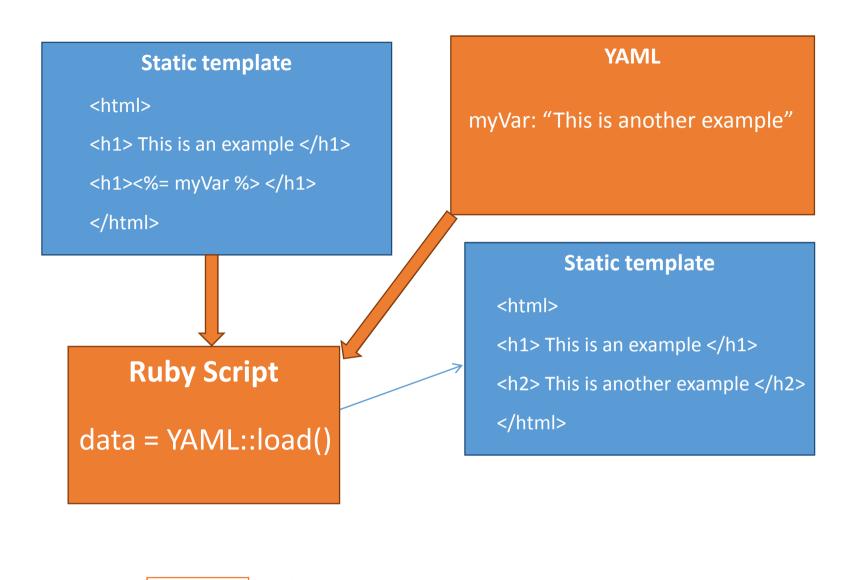
data = YAML::load()

# Generation of static pages

# **YAML Static template** <html> myVar: "This is another example" <h1> This is an example </h1> <h1><%= myVar %> </h1> </html> **Ruby Script** data = YAML::load()

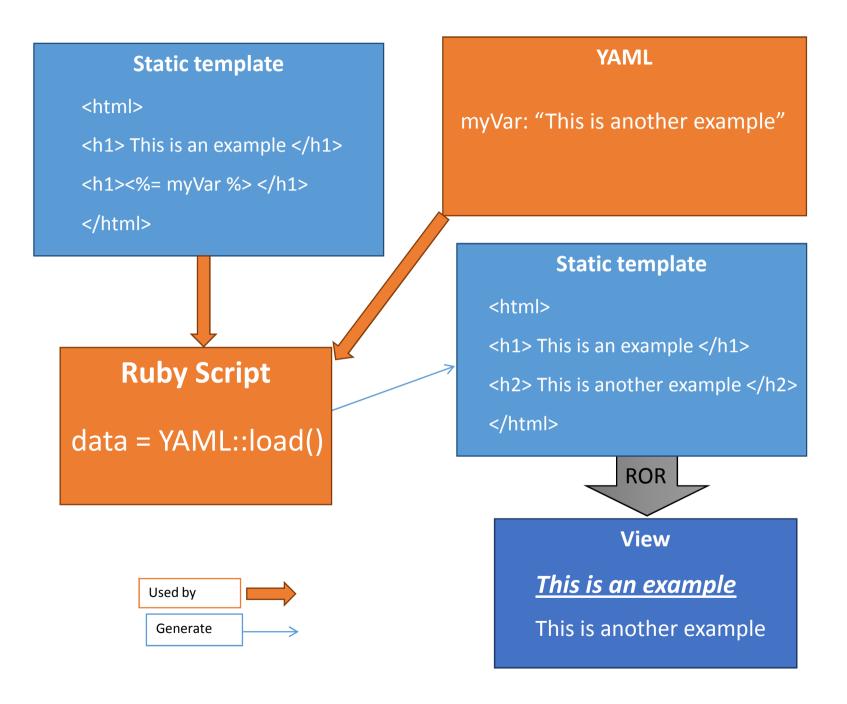
Used by

Generate



Used by

Generate



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# Impact on the server of a GET request on the page « Real-Time »

#### Comparaison of performance

#### **SWARMON**

```
Started GET "/view" for 92.139.129.36 at 2015-03-11 20:26:01 +0100
Processing by ViewController#view as HTML
Rendered view/view.html.erb within layouts/noturbolinks (4.4ms)
Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms)
Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.4ms)
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/action
n_dispatch/middleware/templates/routes/_route.html.erb (18.0ms)
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/routes/_table.html.erb (2.4ms)
Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100
Started GET "/assets/jquery_ujs.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100
Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100
Started GET "/assets/gmaps/objects/base builder.is?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/builder.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/objects/null_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/clusterer.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100
Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100
Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#mapp as JS
Rendered view/_mapp.html.erb (1.6ms)
Rendered view/mapp.js.erb (8.2ms)
Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms)
Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#choiceteams as JS
Team Load (0.6ms) SELECT "teams".* FROM "teams"
Robot Load (0.4ms) SELECT "robots".* FROM "robots" WHERE "robots"."team id" = 1 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team id" = 2 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 3 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 4 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 5 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 7 LIMIT 1
Rendered view/ choiceteams.html.erb(29.6ms)
Rendered view/choiceteams is erh (37 1ms)
Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)
```

### Monitor Your Robot

Started GET "/real-time" for ::1 at 2015-03-11 22:35:22 +0100
ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema\_migrations" \* FROM "schema\_migrations" Processing by RealTimeControllerishows at HTML (1.0ms) SELECT COUNT(\*) FROM "missions" WHERE (start < '2015-03-11 21:35:23.

0/29305' AND //0315-03-11 21:35:23 0/29305' < end)

Rendered real\_time/show.html.erb within layouts/application (68.0ms)
Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord: 1.0ms)

Started GET "/assets/jquery-87424c3c19e96d4fb033c10ebe21ec40\_js?body=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/jquery\_cookie-6f1aca88e6c397046084354934853e04\_js?body=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/jquery\_ujs-e27bd20a10d2965584522d71e9f42fj:pbody=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/jquery\_ujs-e27bd20a10d2965584522d71e9f42fj:pbody=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/functions-d97ed371128fcea95ddbe699f474594b\_js?body=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/faultime-6040e644440d7f50b0f2778eb61a3750\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100 Started GET "/assets/faultime-6040e644440d7f50b0f2778eb61a3750\_js7body=1" for ::1 at 2015-03-135:33 +0100

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## **SWARMON**

```
Started GET "/view" for 92.139.129.36 at 2015-03-1120:26:01+0100
 Processing by ViewController#view as HTML
Rendered view/view.html.erb within layouts/noturbolinks (4.4ms)
Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms
Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.4ms)
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/actio
n_dispatch/middleware/templates/routes/_route.html.erb (18.0ms)
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack
4.1.0/lib/action_dispatch/middleware/templates/routes/_table.html.erb (2.4ms)
Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100
Started GET "/assets/jquery_ujs.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100
Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100
Started GET "/assets/gmaps/objects/base builder.is?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/builder.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/objects/null_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100
Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100
Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
 Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#mapp as JS
Rendered view/_mapp.html.erb (1.6ms)
Rendered view/mapp.js.erb (8.2ms)
Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms)
Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#choiceteams as JS
Team Load (0.6ms) SELECT "teams".* FROM "teams"
Robot Load (0.4ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 1 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 2 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 3 LIMIT 1
Robot Load (0.3ms) SFLECT "robots" * FROM "robots" WHERE "robots" "team id" = 4 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 5 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 7 LIMIT 1
Rendered view/ choiceteams.html.erb (29.6ms)
Rendered view/choiceteams.is.erb (37.1ms)
Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)
```

#### Monitor Your Robot

Started GET "/real-time" for ::1 at 2015-03-11 22:35:22 +0100
ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema\_migrations".\*FROM"schema\_migrations"
Processing by RealTimeController#show as HTML
(1.0ms) SELECT COUNT(") FROM "missions" WHERE (start < '2015-03-11 21:35:23.
023905" AND '2015-03-11 21:35:23.029305" c end)
Rendered real\_time/show.html.erb within layouts/application (68.0ms)
Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord::1.0ms)
Started GET "/assets/jquery-87424c3:19966d4fb0331c0bee21ec40.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/jquery\_ujs-e27bd20a10d29655845a22d71ef94f21.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/jquery\_ujs-e27bd20a10d29655845a22d71ef94f21.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/pplication-fcbbf6628d6f1debf9b5fcf689bd2e9.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/pplication-fcbbf6628d6f1debf9b5fcf689bd2e9.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/pplication-fcbbf6628d6f1debf9b5fcf689bd2e9.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/pplication-fcbbf6628d6f1debf9b5fcf689bd2e9.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/pplication-fcbbf6628d6f1debf9b5fcf689bd2e9.js?body=1" for ::1 at 2015-03-11 22:35:23 +0100

# Legend:

Get HTML and CSS

**Get Javascripts** 

**Initialize GUI** 

#### Comparaison of performance

#### **SWARMON**

Started GET "/view" for 92.139.129.36 at 2015-03-11 20:26:01 +0100 Processing by ViewController#view as HTML Rendered view/view.html.erb within layouts/noturbolinks (4.4ms) Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms) Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/action\_dispatch/middleware/templates/rescues/\_trace.html.erb (2.4ms) Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/actio n\_dispatch/middleware/templates/routes/\_route.html.erb (18.0ms) Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/action\_dispatch/middleware/templates/routes/\_table.html.erb (2.4ms) Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100 Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100 Started GET "/assets/jquery\_ujs.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100 Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100 Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100 Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100 Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100 Started GET "/assets/gmaps/objects/base builder.is?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100 Started GET "/assets/gmaps/objects/builder.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100 Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-1120:26:03+0100 Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03+0100 Started GET "/assets/gmaps/objects/null\_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100 Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at2015-03-1120:26:03 +0100 Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03+0100 Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100 Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100 Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100 Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100 Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100 Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100 Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100 Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100 Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100 Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100 Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100 Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100 Processing by ViewController#mapp as JS Rendered view/\_mapp.html.erb (1.6ms) Rendered view/mapp.js.erb (8.2ms) Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms) Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100 Processing by ViewController#choiceteams as JS Team Load (0.6ms) SELECT "teams".\* FROM "teams" Robot Load (0.4ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team id" = 1 LIMIT 1 Robot Load (0.3ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team\_id" = 2 LIMIT 1 Robot Load (0.3ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team\_id" = 3 LIMIT 1 Robot Load (0.3ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team\_id" = 4 LIMIT 1 Robot Load (0.3ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team\_id" = 5 LIMIT 1 Robot Load (0.3ms) SELECT "robots".\* FROM "robots" WHERE "robots"."team\_id" = 7 LIMIT 1 Rendered view/ choiceteams.html.erb (29.6ms) Rendered view/choiceteams is erh (37 1ms)

Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)

#### MYR

Started GET "/real-time" for ::1 at 2015-03-11 22:35:22 +0100

ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema\_migrations".\* FROM "schema\_migrations"

Processing by RealTimeControllerishow as HTML

(1.0ms) SELECT COUNT(\*) FROM "missions" WHERE (start < '2015-03-11 21:35:23.

029305 'AND '2015-03-11 21:35:23.029305' c end)

Rendered real\_time/show.html.erb within layouts/application (68.0ms)

Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord: 1.0ms)

Started GET "/assets/jquery\_s7424c3c19964df0933c10ebe21ec40\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uokele-flaca88e6c397046084354934853e04\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uis-e27bd20a10d296558845a22d71ef9df2j;57body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uis-e27bd20a10d296558845a22d71ef9df2j;57body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/plication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/plication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/spplication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

### Comparaison of performance

## SWARMON: 45 GET Requests

```
Started GET "/view" for 92.139.129.36 at 2015-03-11 20:26:01 +0100
Processing by ViewController#view as HTML
Rendered view/view.html.erb within layouts/noturbolinks (4.4ms)
Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms)
Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.4ms)
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/actio
n_dispatch/middleware/templates/routes/_route.html.erb (18.0ms)
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/routes/_table.html.erb (2.4ms)
Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100
Started GET "/assets/jquery_ujs.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02 +0100
Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100
Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100
Started GET "/assets/gmaps/objects/base_builder.js?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/builder.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-1120:26:03+0100
Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/objects/null_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100
Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100
Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#mapp as JS
Rendered view/_mapp.html.erb (1.6ms)
Rendered view/mapp.js.erb (8.2ms)
Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms)
Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#choiceteams as JS
Team Load (0.6ms) SELECT "teams".* FROM "teams"
Robot Load (0.4ms) SELECT "robots".* FROM "robots" WHERE "robots"."team id" = 1 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 2 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 3 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 4 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 5 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 7 LIMIT 1
Rendered view/ choiceteams.html.erb (29.6ms)
Rendered view/choiceteams.is.erb (37.1ms)
```

Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)

## *MYR:* 6 GET Requests

Started GET "/real-time" for :: 1 at 2015-03-11 22:35:22 +0100

ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema\_migrations".\* FROM "schema\_migrations"

Processing by RealTimeControllerishow as HTML
(1.0ms) SELECT COUNT(\*) FROM "missions" WHERE (start < '2015-03-11 21:35:23.

029305' AND '2015-03-11 21:35:23.029305' c end)

Rendered real\_time/show.html.erb within layouts/application (68.0ms)

Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord: 1.0ms)

Started GET "/assets/jquery\_cookie-6f1aca88e6c397046084354934853e04\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_cookie-6f1aca88e6c397046084354934853e04\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uis-e27bd20a104296558453222171e964f2i; Prody=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/pulcrations-dob/forbid286f1d1eb/9b5fcf689bd2e9\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/pulcrations-fcbbf628d6f1d1eb/9b5fcf689bd2e9\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/paplications-fcbbf628d6f1d1eb/9b5fcf689bd2e9\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/paplications-fcbbf628d6f1d1eb/9b5fcf689bd2e9\_js?body=1" for :: 1 at 2015-03-11 22:35:23 +0100

## SWARMON: 45 GET Requests

```
Started GET "/view" for 92.139.129.36 at 2015-03-11 20:26:01 +0100
Processing by ViewController#view as HTML
Rendered view/view.html.erb within layouts/noturbolinks (4.4ms)
Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms)
Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100
Rendered/home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.4ms)
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/actio
n_dispatch/middleware/templates/routes/_route.html.erb (18.0ms)
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/routes/_table.html.erb (2.4ms)
Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100
Started GET "/assets/jquery_ujs.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100
Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100
Started GET "/assets/gmaps/objects/base_builder.js?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/builder.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-1120:26:03+0100
Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/objects/null_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100
Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100
Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#mapp as JS
Rendered view/_mapp.html.erb (1.6ms)
Rendered view/mapp.js.erb (8.2ms)
Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms)
Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#choiceteams as JS
Team Load (0.6ms) SELECT "teams".* FROM "teams"
Robot Load (0.4ms) SELECT "robots".* FROM "robots" WHERE "robots"."team id" = 1 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 2 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 3 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 4 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 5 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 7 LIMIT 1
Rendered view/ choiceteams.html.erb (29.6ms)
Rendered view/choiceteams.is.erb (37.1ms)
```

Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)

## MYR: 6 GET Requests

Started GET "/real-time" for ::1 at 2015-03-11 22:35:22 +0100

ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema\_migrations".\* FROM "schema\_migrations"

Processing by RealTimeControllerishow as HTML

(1.0ms) SELECT COUNT(\*) FROM "missions" WHERE (start < '2015-03-11 21:35:23.

029305 'AND '2015-03-11 21:35:23.029305' c end)

Rendered real\_time/show.html.erb within layouts/application (68.0ms)

Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord: 1.0ms)

Started GET "/assets/jquery\_s7424c3c19964df0933c10ebe21ec40\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uokele-flaca88e6c397046084354934853e04\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uis-e27bd20a10d296558845a22d71ef9df2j;57body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/jquery\_uis-e27bd20a10d296558845a22d71ef9df2j;57body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/plication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/plication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

Started GET "/assets/spplication-fcbbf628d6f1d1ebf9bf5f689bd2e9\_js7body=1" for ::1 at 2015-03-11 22:35:23 +0100

# Number of requests to send: 39

Max number of parallel connexions: 6

Common value for ping: 50ms to 100 ms

Time needed: 325 ms to 650 ms

## SWARMON: 45 GET Requests

```
Started GET "/view" for 92.139.129.36 at 2015-03-11 20:26:01 +0100
Processing by ViewController#view as HTML
Rendered view/view.html.erb within layouts/noturbolinks (4.4ms)
Completed 200 OK in 943ms (Views: 940.6ms | ActiveRecord: 0.3ms)
Started GET "/stylesheets/styles.css" for 92.139.129.36 at 2015-03-11 20:26:02 +0 100
Rendered/home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/rescues/_trace.html.erb (2.4ms)
Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-4.1.0/lib/actio
n_dispatch/middleware/templates/routes/_route.html.erb (18.0ms)
 Rendered /home/apidev/.rvm/gems/ruby-2.0.0-p247/gems/actionpack-
4.1.0/lib/action_dispatch/middleware/templates/routes/_table.html.erb (2.4ms)
Started GET "/assets/jquery.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/jquery.turbolinks.js?body=1" for 92.139.129.36 at 2015-03-1120:26:02+0100
Started GET "/assets/jquery_ujs.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/iguery.cookie.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/underscore.is?body=1" for 92.139.129.36 at 2015-03-11 20:26: 02 +0100
Started GET "/assets/gmaps/base.is?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/base/base.is?body=1" for 92.139.129.36 at 2015-03-11 2 0:26:02 +0100
Started GET "/assets/gmaps/objects/base_builder.js?body=1" for 92.139.129.36 at 2 015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/builder.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:02 +0100
Started GET "/assets/gmaps/objects/handler.js?body=1" for 92.139.129.36 at 2015-03-1120:26:03+0100
Started GET "/assets/gmaps/google/objects/common.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/objects/null_clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/builders/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/marker.js?body=1" for 92.139.129.36 at2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polygon.js?body=1" for 92.139.129.36 a t 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/builders/polyline.js?body=1" for 92.139.129.36at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/circle.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/clusterer.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/bound.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/kml.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/map.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/marker.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polygon.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/gmaps/google/objects/polyline.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03+0100
Started GET "/assets/gmaps/google/primitives.js?body=1" for 92.139.129.36 at 2015 -03-11 20:26:03 +0100
Started GET "/assets/gmaps/google.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:03 +0100
Started GET "/assets/turbolinks.js?body=1" for 92.139.129.36 at 2015-03-11 20:2604 +0100
Started GET "/assets/coordinates.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/contact.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/home.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/members.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/missions.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/myaccount.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/robots.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/teams.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/trackers.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/assets/tries.js?body=1" for 92.139.129.36 at 2015-03-1120:26:04+0100
Started GET "/assets/what.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04 +0100
Started GET "/assets/application.js?body=1" for 92.139.129.36 at 2015-03-11 20:26:04+0100
Started GET "/mapp" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#mapp as JS
Rendered view/_mapp.html.erb (1.6ms)
Rendered view/mapp.js.erb (8.2ms)
Completed 200 OK in 25ms (Views: 22.0ms | ActiveRecord: 0.0ms)
Started GET "/choiceteams" for 92.139.129.36 at 2015-03-11 20:26:05 +0100
Processing by ViewController#choiceteams as JS
Team Load (0.6ms) SELECT "teams".* FROM "teams"
Robot Load (0.4ms) SELECT "robots".* FROM "robots" WHERE "robots"."team id" = 1 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 2 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 3 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 4 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 5 LIMIT 1
Robot Load (0.3ms) SELECT "robots".* FROM "robots" WHERE "robots"."team_id" = 7 LIMIT 1
Rendered view/ choiceteams.html.erb (29.6ms)
Rendered view/choiceteams.is.erb (37.1ms)
```

Completed 200 OK in 50ms (Views: 45.1ms | ActiveRecord: 3.4ms)

## MYR: 6 GET Requests

Started GET "/real-time" for ::1 at 2015-03-11 22:35:22 +0100
ActiveRecord::SchemaMigration Load (1.0ms) SELECT"schema\_migrations" \*FROM"schema\_migrations"
Processing by RealTimeController#showas HTML
(1.0ms) SELECT COUNT(\*) FROM "missions" WHERE (start < '2015-03-11 21:35:23.
029305 'AND '2015-03-11 21:35:23.029305' cend)
Rendered real\_time/show.html.erb within layouts/application (68.0ms)
Completed 200 OK in 304ms (Views: 267.0ms | ActiveRecord: 1.0ms)
Started GET "/assets/jouery\_cookie-6f1aca88e6c397046084354934853e04\_js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/jouery\_cookie-6f1aca88e6c397046084354934853e04\_js?body=1" for ::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/jouery\_uis-e27bd20a10d29655845a22d71e9f42f1;57bdy=1" for::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/jouery\_uis-e27bd20a10d29655845a22d71e9f42f1;57bdy=1" for::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/functions-d97ed371128fcea95ddbe699f474594b\_js?body=1" for::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/e1application-fcbbf628d6f1d1ebf9b5fcf689bd2e9\_js?body=1" for::1 at 2015-03-11 22:35:23 +0100
Started GET "/assets/e1application-fcbbf628d6f1d1ebf9b5fcf689bd2e9\_js?body=1" for::1 at 2015-03-11 22:35:23 +0100

# Number of requests to send: 39

Max number of parallel connexions: 6

Common value for ping: 50ms to 100 ms

Time needed: 325 ms to 650 ms

To be compared to:
Rendering a common web page:
Less than one second

# Open sea test

## Open sea test: precision on the map

# Monitor your robot



# **Boat's instumentation**



Open sea test: comparison between the two refresh methods

# Conclusion

GitHub
50 commits
More than 10000 lines of codes

# GitHub 50 commits More than 10,000 lines of codes





GitHub
50 commits
More than 10,000 lines of codes

Stormboard
32 post-its

# **GitHub**

50 commits More than 10,000 lines of codes

# Stormboard 32 post-its

# Reports

- 1 State of the Art
- 2 Status reports
- 1 Final report

To conclude: key features

- ✓ New « Real-Time » page
- ✓ New CSS and website generator
- ✓ New database and possibility to create markers for a specific mission
- ✓ Better use of technologies
- ✓ Good quality of code to allow future developments

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# Any Questions?

# ANNEXES

I. Methods of work
Agile Development MYR
Quality Commitment in MYR

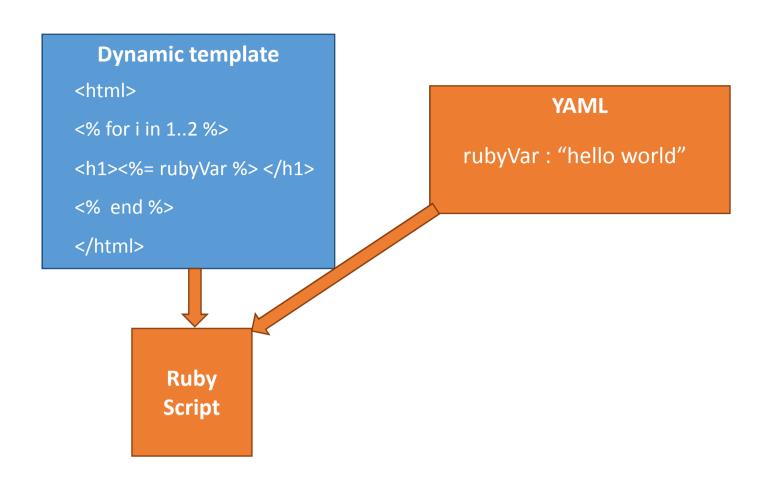
#### II. Improvements since SWARMON

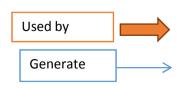
Changes in the Map rendering Example of implementation Improvement in the CSS and the Layout Improvement in the database

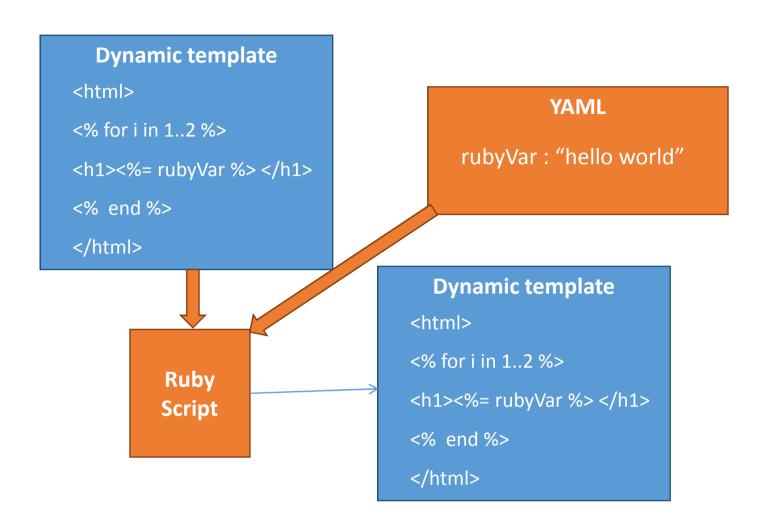
III. New technologies in MYR
How to use Ajax in Rails
Website generator
Impact on performance

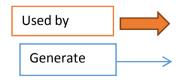
# Website generator

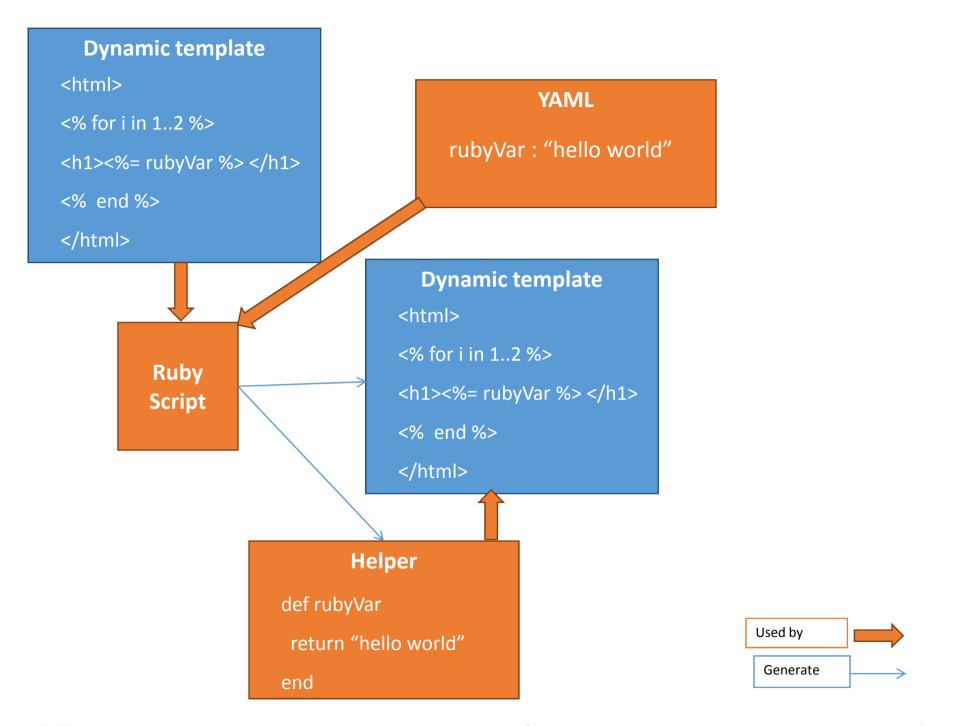
# Generation of dynamic pages

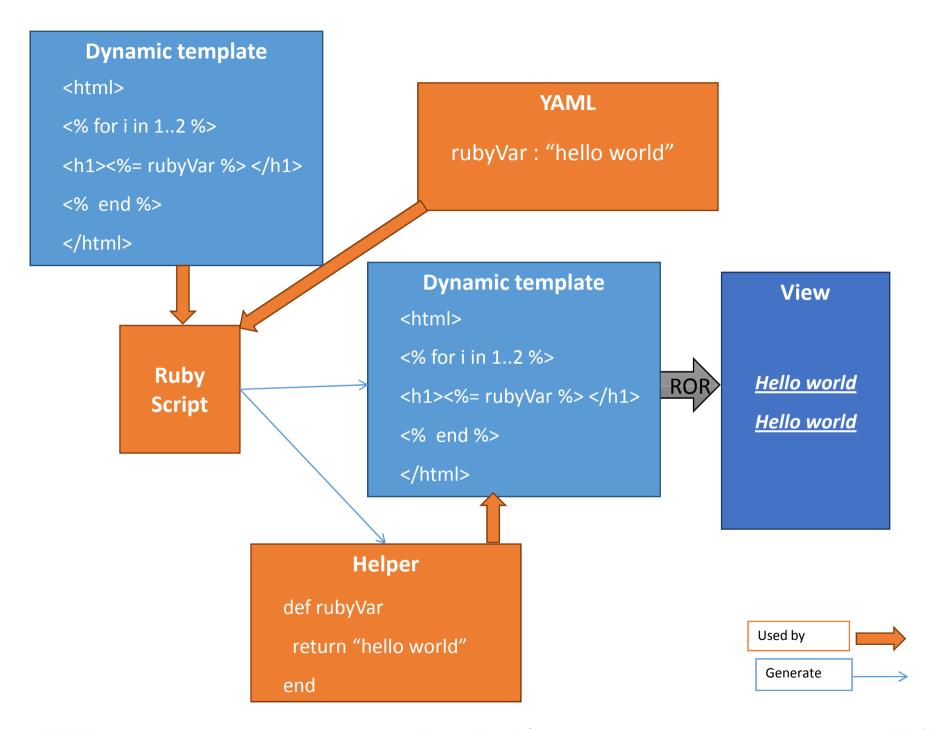












I. Methods of work
Agile Development MYR
Quality Commitment in MYR

#### II. Improvements since SWARMON

Changes in the Map rendering Example of implementation Improvement in the CSS and the Layout Improvement in the database

III. New technologies in MYR
How to use Ajax in Rails
Website generator
Impact on performance

# Rake file

# How to generate a customized web site?

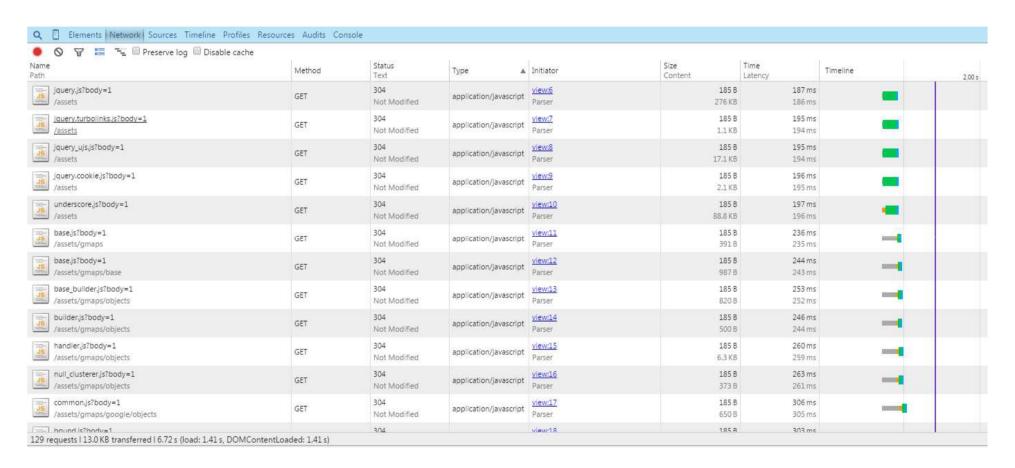
```
C:\Sites\MYR\MYR_rails\rake config:load
C:\RailsInstaller\Ruby2.1.0\rbin\ruby.exe C:\Sites\MYR\MYR_rails\lib\generator\ru
by_script\config_static.rb
Load config completed

C:\Sites\MYR\MYR_rails\rails \rails s
=> Booting WEBrick
=> Rails 4.2.0 application starting in development on http://localhost:3000
=> Run \rails server -h \for more startup options
=> Ctrl-C to shutdown server
[2015-03-17 23:50:00] INFO WEBrick 1.3.1
[2015-03-17 23:50:00] INFO ruby 2.1.5 \( 2014-11-13 \) [i386-mingw32]
[2015-03-17 23:50:00] INFO WEBrick::HTTPServer#start: pid=1100 port=3000
```

## **ANNEXES:**

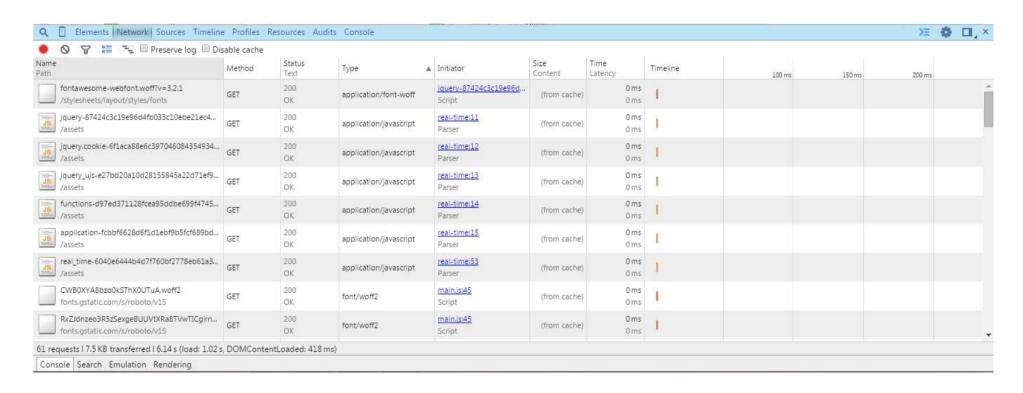
- Client side impact of a GET request on /view (SWARMON)
- Impact of cache on javascripts
- Analysis of performance on /view (SWARMON)
- Format used for coordinates
- Complete Stormboard

### Client side Impact of a GET request on /view (SWARMON)



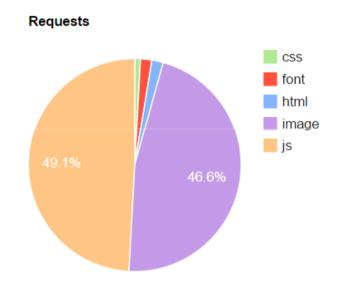
#### 129 Requests

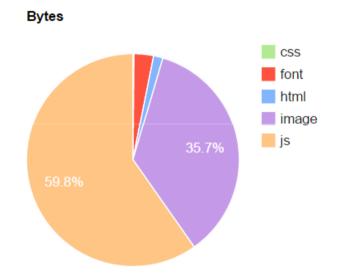
### Impact of cache on javascripts



#### 61 Requests

### Analysis of performance on /view (SWARMON)

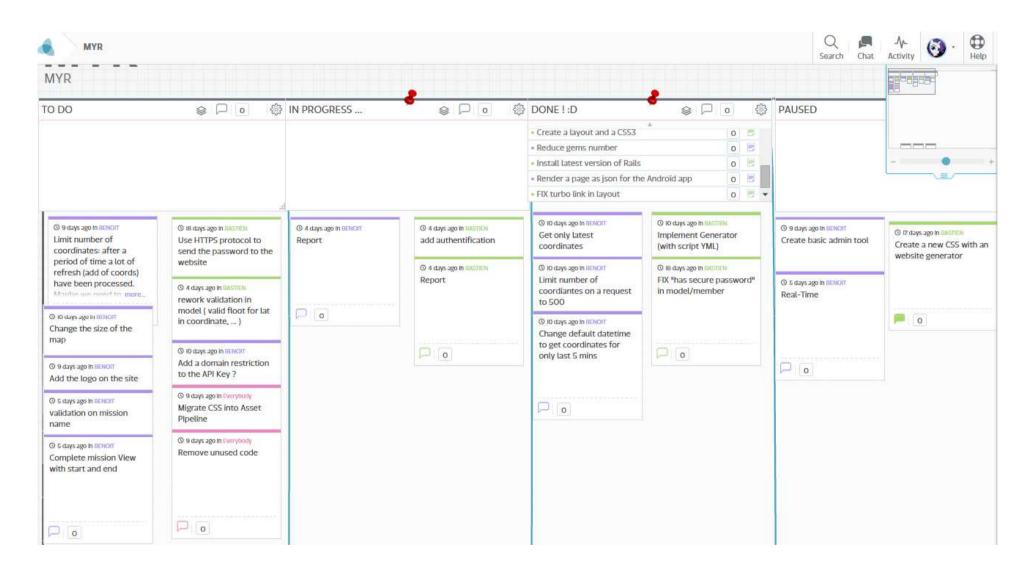




#### Format used for coordinates

```
Q | | Elements | Network | Sources | Timelin
                             irb(main):046:0*
                             irb(main):047:0*
html body#top
                             irb(main):048:0*
                             irb(main):049:0*
Console Search Emulation Rendering
                             irb(main):050:0*
                             irb(main):051:0*
   irb(main):052:0*
                             irb(main):053:0*
 ▼ [Object, Object] []
                             irb(main):054:0*
   ▼ 0: Object
                             irb(main):055:0*
      latitude: 43
                             irb(main):056:0*
                             irb(main):057:0*
      longitude: 43
                             irb(main):058:0*
      tracker id: 1
                            ▶ proto : Object
   ▶ 1: Object
    length: 2
   ▶ proto : Array[0]
```

#### « Stormboard » of Monitor Your Robot

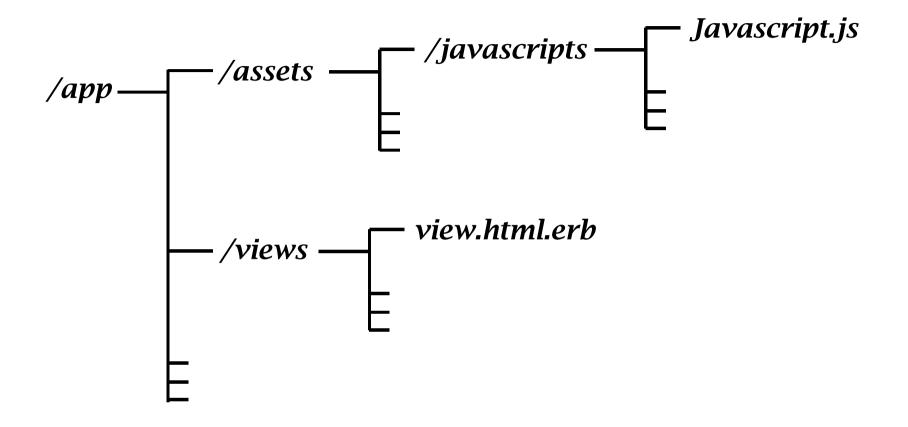


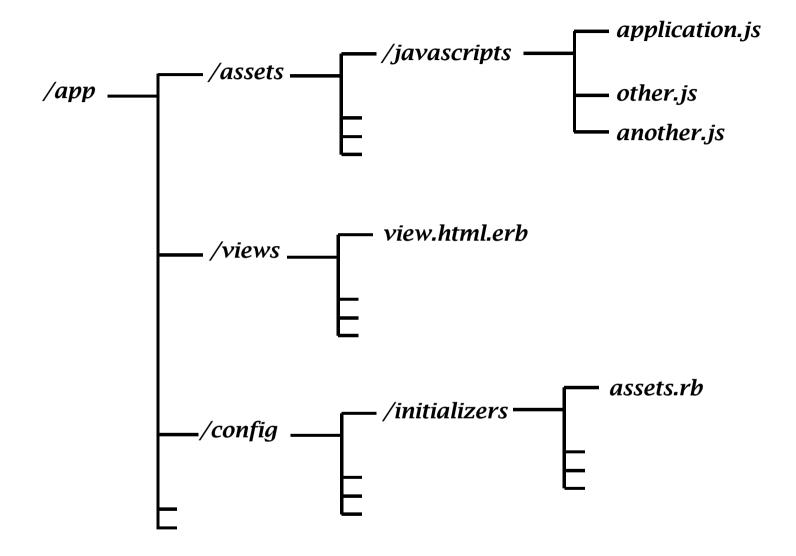
## Bibliography:

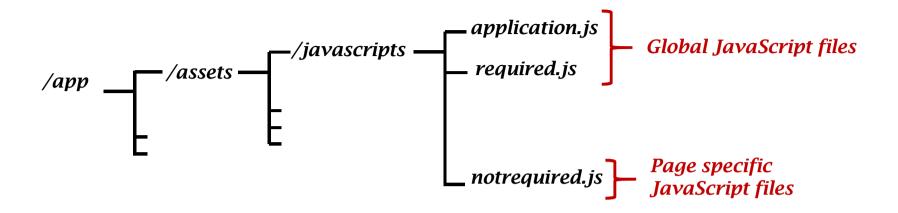
- "WebPageTest." WebPagetest Test Result. N.p., n.d. Web. 15 Mar. 2015.

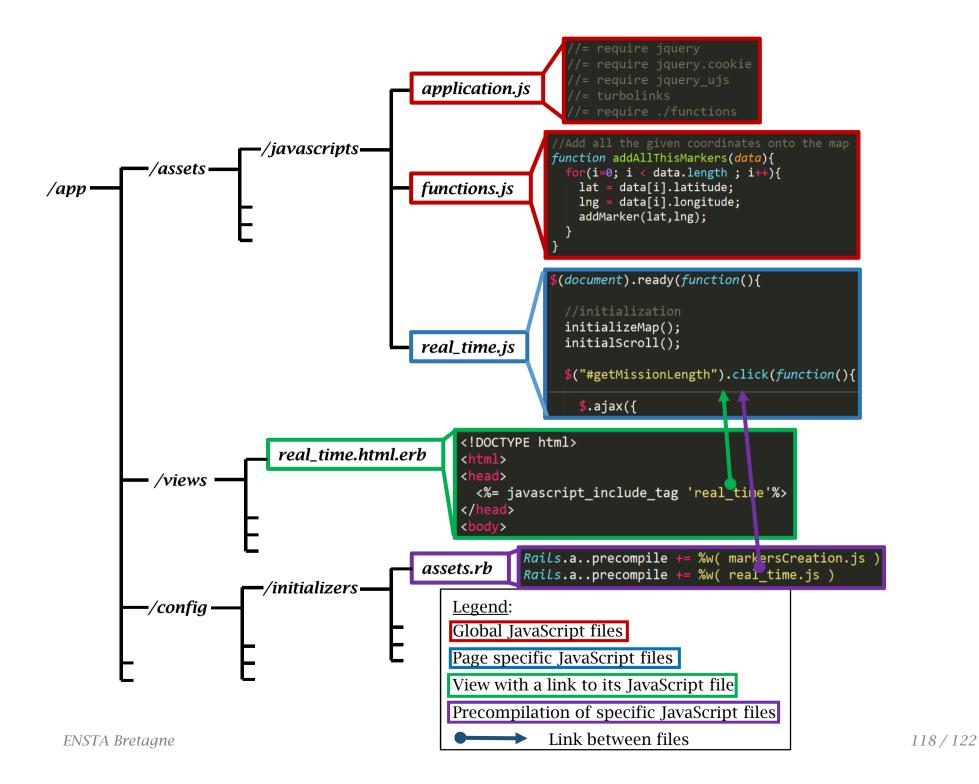
# Workspace

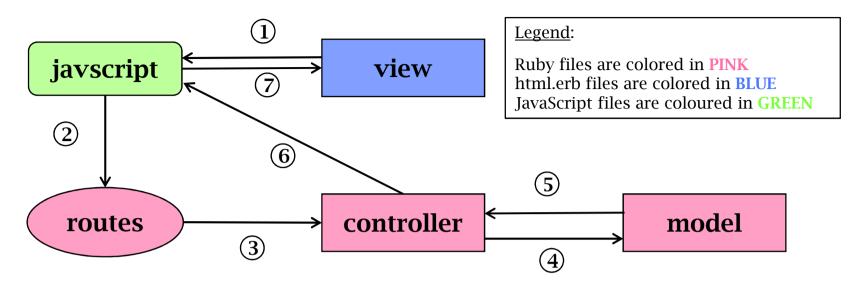
```
(document).ready(function(){
<!DOCTYPE html>
                                                                       initializeMap();
                                                                       initialScroll();
 <%= javascript_include_tag 'real_time', 'data-</pre>
  turbolinks-track' => true %>
</head>
                                                                       $("#getMissionLength").click(function(){
<body>
<% missionsArray = getCurrentMission %>
                                                                         $.ajax({
                                                                           type: "GET",
url: "/getMissionLength",
<% nbMissions = missionsArray.size %>
 <% if ( nbMissions > 0 ) %>
                                                                           dataType: "json",
success: function(data){
   <% if missionsArray.size > 1 %>
     Cannot display multiple missions at a time
                                                                             if(data.length > 0){
                                                                               start = data[0];
                                                                               end = data[1];
```





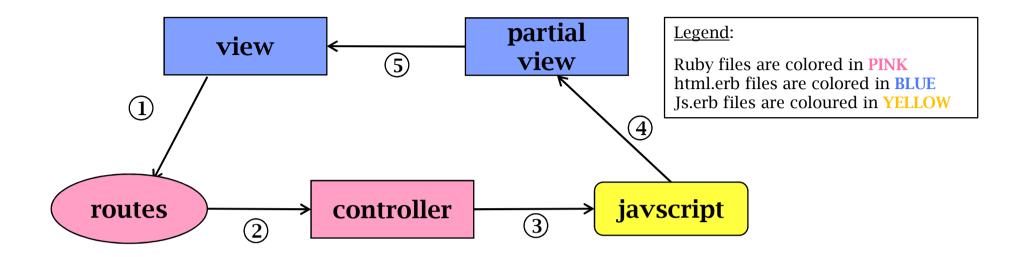






- (1) The view receives an event which trigger an action of the Jquery script.
- (2) The Ajax request of the jQuery script calls a URL.
- (3) The routes.rb file establishes a link between the provided URL and the corresponding controller action.
- The method of the controller process its actions. The controller can retrieve data from the database by directly calling Ruby Classes.
- (5) The ActiveRecord:: ORM retrieves the data by using SQL requests and send them back to the controller as a Ruby Object.
- **6** The controller send the data back to the jQuery script using JSON format.
- ${\overline{\mathcal{O}}}$  The JQuery script uses the retrieved data to change the content of the web page.

```
<button id="gatherCoords" type="button">Get coordinates/button>
    $("#gatherCoords").click(function(){
      $.ajax({
        type: "GET",
        url: "/gatherCoordsBetweenDates",
        dataType: "json",
        data: { tstart: start, tend: end},
        success: function(data){
   get 'getMissionLength', to: 'real time#getMissionLength'
   get 'gatherCoordsBetweenDates', to: 'coordinates#gatherCoordsBetweenDates'
   get 'gatherCoordsSince', to: 'coordinates#gatherCoordsSince'
    def gatherCoordsBetweenDates
(4)
      if (params[:tstart] != nil && params[:tend] != nil)
(5)
     render json: newCoords.to_json(:only =>[:tracker_id,:latitude,:longitude])
    class Coordinate < ActiveRecord::Base</pre>
      belongs to :tracker
        validates :latitude, presence: true
        validates :longitude, presence: true
        validates :datetime, presence: true
    length = data.length;
    for (i=0; i<length; i++)
      refreshWithNewMarkers(data);
```



- 1 The view receives an event which triggers an Ajax action (remote: true).
- The routes.rb file uses the given action name to find the corresponding method and controller.
- The controller can do some preprocessing but it can also do nothing at all. In fact the method in the controller is just needed to respect the MVC template.
- This jQuery script directly replaces a <div> in the original html.erb with a piece of code from another html.erb file.
- This second html.erb file is named "partial" as it is only a partial part of the final rendered web page. Its name must start with an underscore or Rails will not recognize it as a "partial".