



---

# MapFish

---

**How to create a web 2.0 mapping application  
with MapFish development framework ?**



- **Open Source solutions provider as editor and integrator**
- **Staff of 38 in Switzerland and France**
- **Camptocamp helps you move forward with the latest Open Source technologies**



Rennes



Lausanne

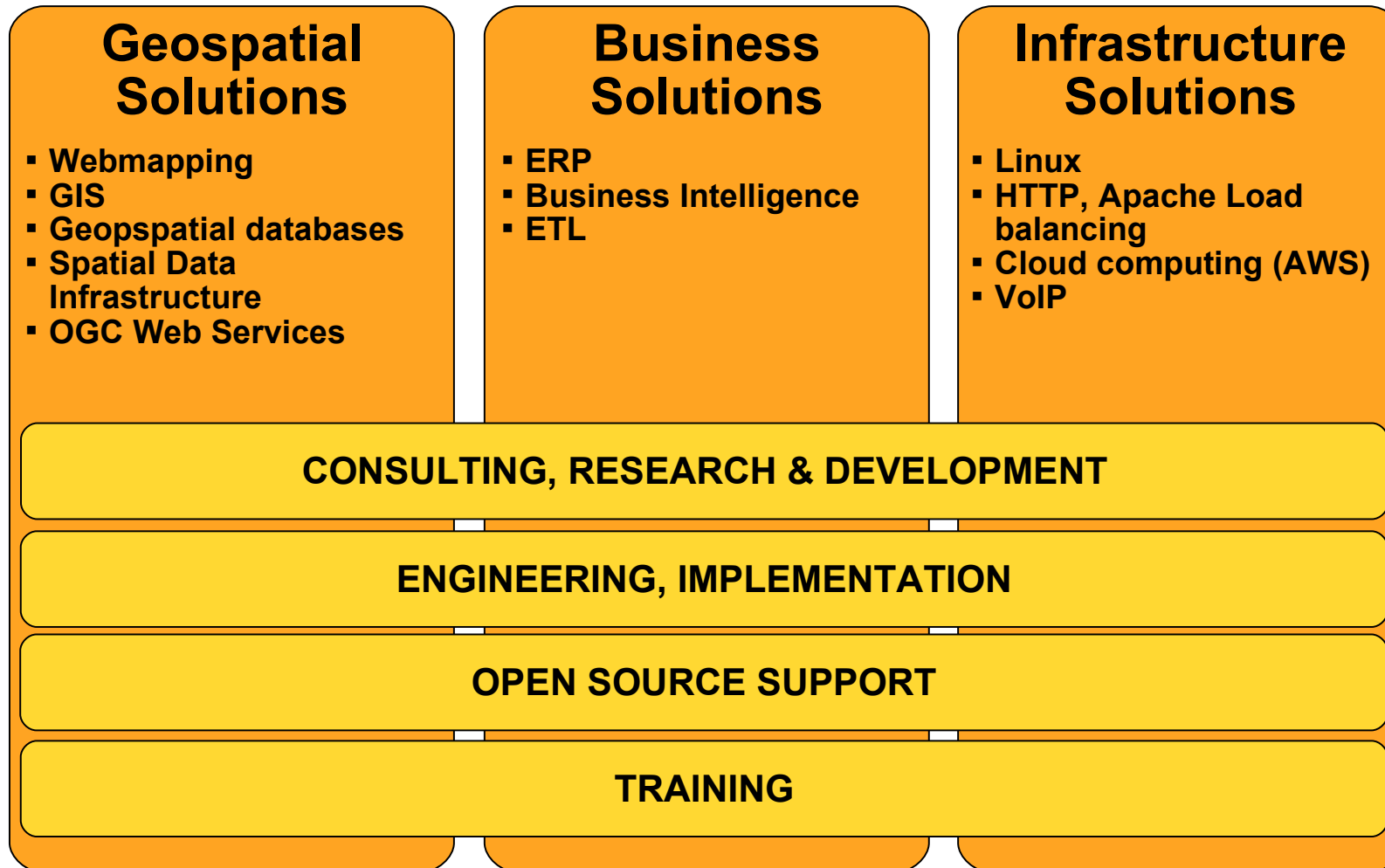


Chambéry



Toulouse

# Camptocamp activity domains



# What is MapFish ?

MapFish is an **easy-to-use** and extensible **web 2.0 mapping application framework**.

But, what is a **framework** ?

From wikipedia : “A framework is a basic conceptual structure used to

**solve or address complex issues.**”

The framework aims to alleviate the overhead associated with common activities performed in

**Web mapping development.**



# More details about this framework?



Hi !

I'm MapFish Server

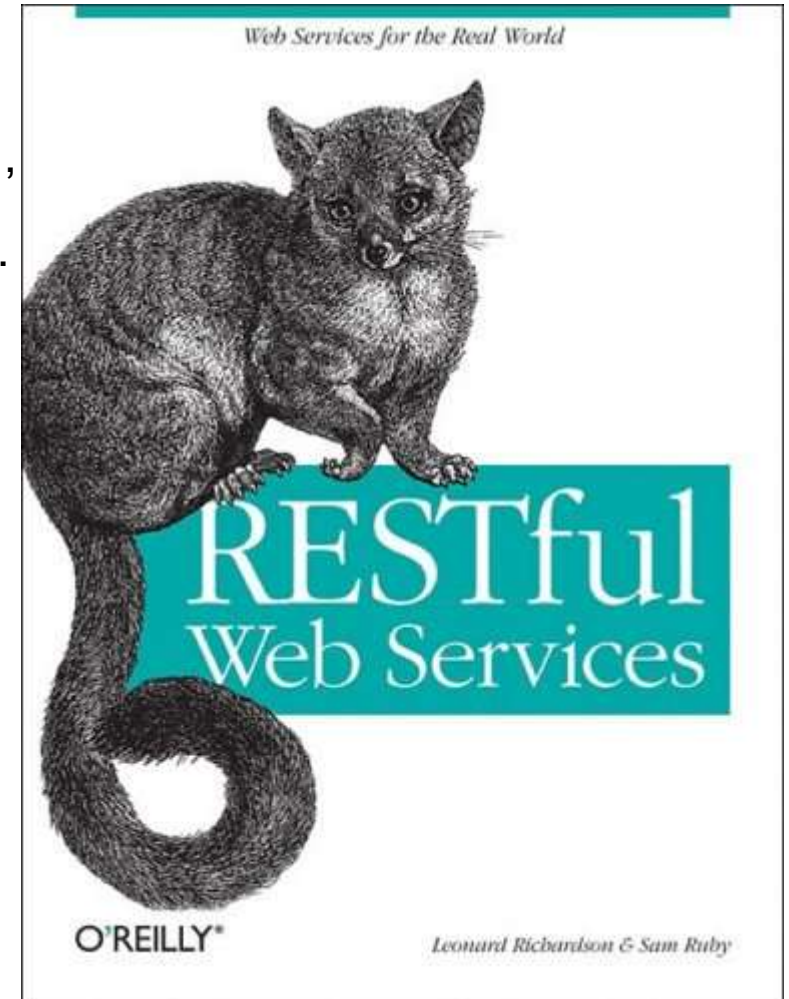
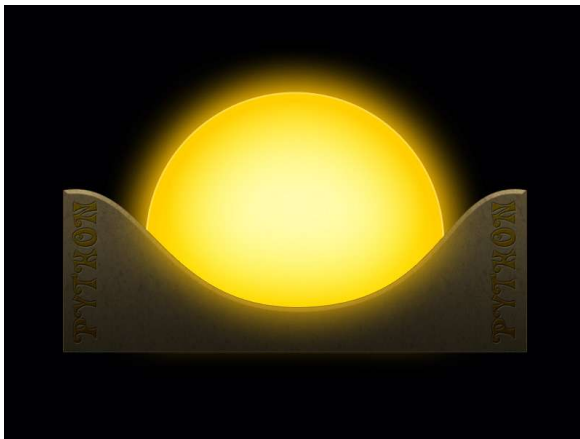
Hi !

I'm MapFish Client

# MapFish Server

MapFish Server provides functionality to create easily **REST** services for spatial data (for **inserting**, **updating**, **querying** and **deleting** spatial data).

MapFish server extends the **Pylons** framework with geospatial-specific functionality and uses library like **Shapely** or **SqlAlchemy**.



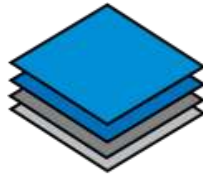
---

# MapFish Client

---

MapFish Client is a **Javascript Toolbox** used to allow the developer to create **Rich Internet Applications**.

The JavaScript toolbox is composed of the **ExtJS**, **OpenLayers**, **GeoExt** JavaScript toolkits, and specific components for interacting with **MapFish REST web services**.



# Rich UI: <http://map.globe.admin.ch/>

The screenshot displays the GLOBE Switzerland web application interface. At the top, there is a navigation bar with 'File Edit View History Bookmarks Tools Help' and a search bar containing 'http://map.globe.admin.ch/?lang=en'. The main header features the 'GLOBE' logo and language options: 'Deutsch | Français Italiano | English'. Below the header, there are links for 'Contact' and 'Register'. The interface is divided into several sections:

- Themes:** A sidebar on the left lists various themes such as 'Bioindication', 'water quality', 'landscape quality', 'water sites', and 'Background'. Under 'Background', there are options for 'Administrative' (Gemeinde, Bezirk, Kanton, Schweiz), 'Nationales Maps', 'Grays Nationales Maps', 'Aerial Images', and 'None'.
- Map:** The central area shows a topographic map of a region in Switzerland, including locations like 'Les Croisettes', 'Vennes', 'Montblesson', 'Savigny', 'Chailly', and 'Belmont - s. l.'. The map includes a scale bar (500 m) and a scale of 1:100'000. Coordinates are given as (539000, 155645).
- Data Tables:** Below the map, there are two tables. The first table, titled 'create site', lists river names and their coordinates. The second table, titled 'add a measure', lists measurement data.

id	rivername	Y (East)	X (North)	delete
551	Ognona	553520	148181	<a href="#">delete</a>
552	La Paudèze	542900	153900	<a href="#">delete</a>
555	Vuachère	538900	151900	<a href="#">delete</a>
556	la Sorge	533500	152700	<a href="#">delete</a>

datum	author	comment	Water quality	landscape	water temper	water O2 (mg)	water nitrate	water condu	water pH	water alk
2007-04-12	CHCH4DID	milieu relevé par karine et Frédéric II		2						

At the bottom left, there are links for 'GLOBE Switzerland', 'Contact', and 'Legal bases'. The status bar at the very bottom shows 'Done' and a small orange logo.



# MapFish Status and License

Last stable **release 1.2**

**PSC** in construction & **incubation process** by OSGEO

New **WebSite**

License **GPLV3**, ongoing discussions

BSD for MapFish -> ExtJS is not shipped with MapFish anymore

GPLV3 -> as it is now



---

# The MapFish Ecosystem

---

MapFishAPI to integrate MapFish application in other applications (CMS, Web site, ...) and to manage applicative **permalinks**

MapFish  
Print to generate  
PDF

Various implementations of **MapFish REST Protocol**:



# MapFishAPI and permalinks

**MapFish Demo**

GeoNames Search +

Permalink +

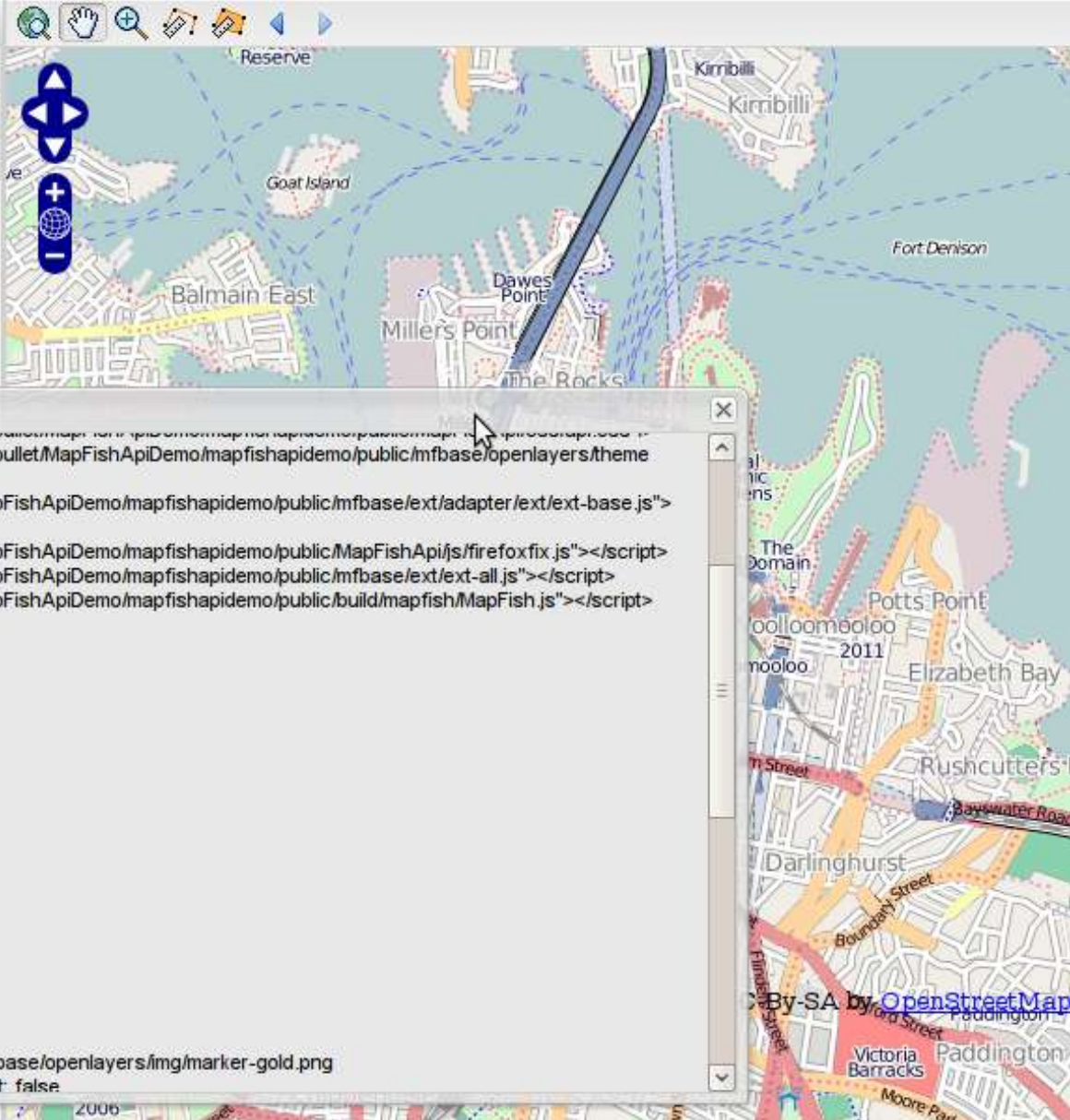
API integration -

## API configuration

Show marker in the middle of the map

Show popup in the middle of the map

Html content:



**API Code source**

```
<link rel="stylesheet" type="text/css" href="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/openlayers/theme/default/style.css"/>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/ext/adapters/ext-base.js">
</script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/MapFishApi/js/firefoxfix.js"></script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/ext/ext-all.js"></script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/build/mapfish/MapFish.js"></script>
<script type="text/javascript">
Ext.onReady(function() {
  geo = new mymapfish.API();
  // createMap config parameters
  // div - div where to place the map
  // easting - center of the map, easting value
  // northing - center of the map, northing value
  // zoom - zoom level
  // bbox - bbox of the initial extent
  geo.createMap({
    div: 'mymap1',
    zoom: 14,
    easting: 16832322.20885,
    northing: -4011071.277787
  });
  // showMarker config parameters
  // easting - position of the marker, default: map center
  // northing - position of the marker, default: map center
  // iconPath - path of a custom icon for the marker (url or relative), default: /mfbase/openlayers/img/marker-gold.png
  // recenter - define if the map has to be recentered at the marker position default: false
});
```

# MapFish Print

Welcome to Cycling in Switzerland

deutsch  
français  
italiano

Enlarged map

Map | Satellite Search...

Close Print

Scale: 1:500,000

Print

- Routes
  - National
  - Regional
  - Sections
  - Local offers
  - Cycle rental
  - Cycle service
- Hiking in Switzerland
- Mountainbiking in Switzerland
- Skating in Switzerland
- Canoeing in Switzerland
- Rail, bus, boat
- Places
- Accommodation
- Shopping
- Places of interest

Coordinates (m): 695000, 279250 | Geodaten © swisstopo (DV084250.1)

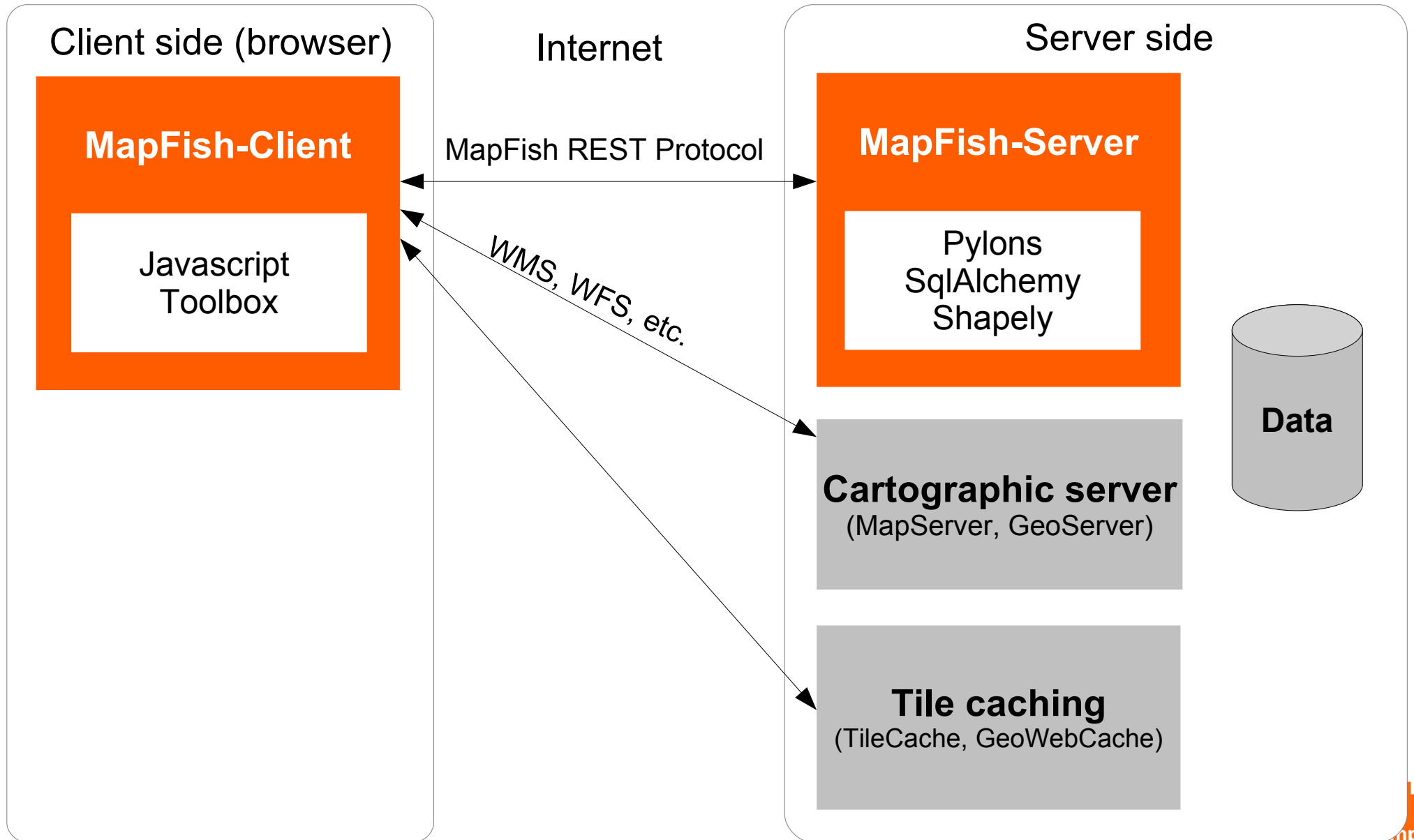
Publishing credits | Copyright & privacy policy | Contact Legend

# But, what can I do with MapFish Framework ?

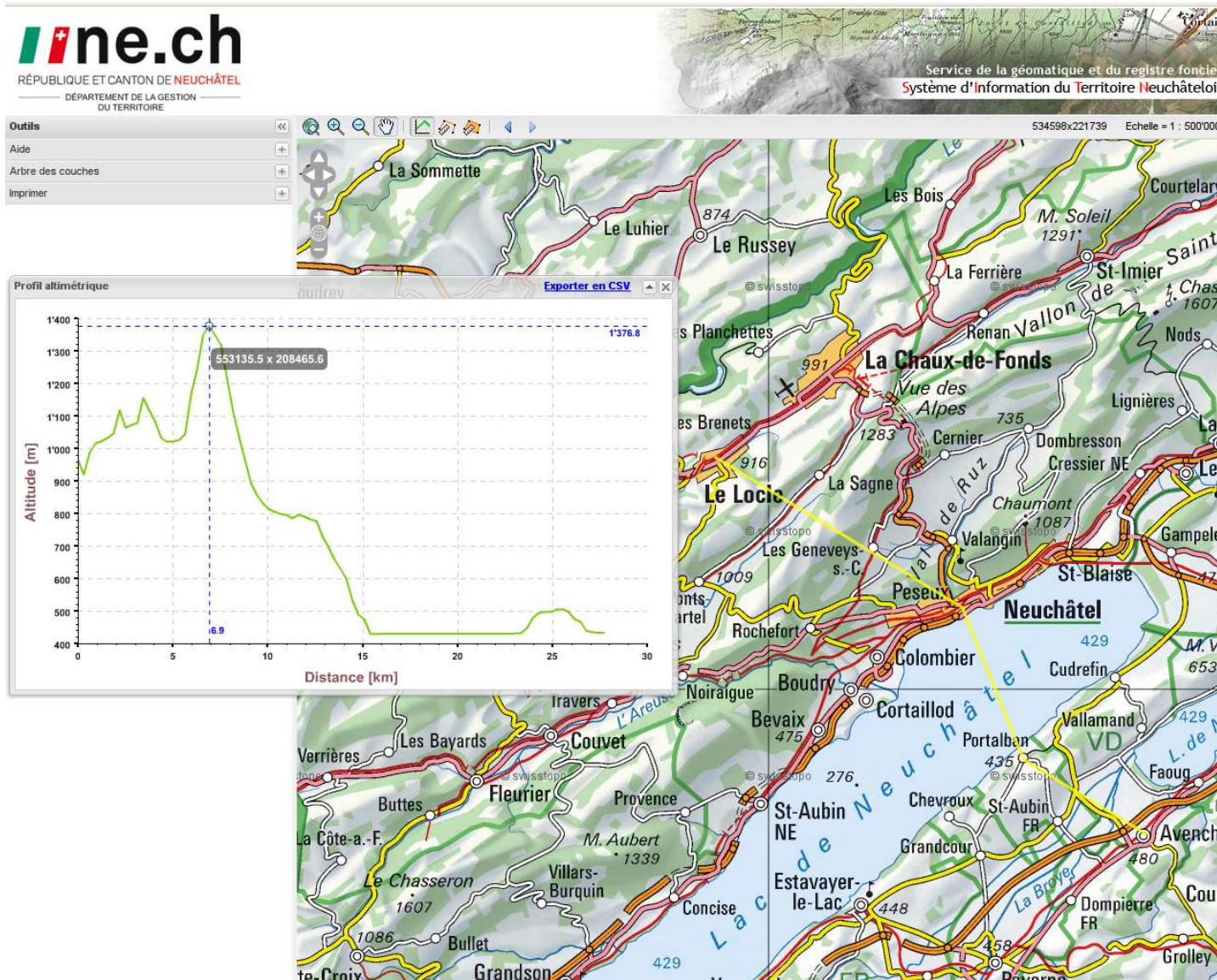


... create MapFish applications !

# MapFish Application – General architecture



# Profile



# Veloland

Willkommen bei Veloland Schweiz

Themen schließen

Veloland

Routen

- National
- Regional
- Etappen
- Lokale Angebote
- Mietvelo
- Veloservice

Wanderland

Mountainbikeland

Skatingland

Kanuland

Bahn - Bus - Schiff


Orte

Übernachten

Sehenswürdigkeiten

français  
italiano  
english

Karte Luftbild Suchen... Drucken



2 Treffer

**Rhone-Route Andermatt—Genève**

Die Rhone-Route durchmisst das Wallis vor imposanter Bergkulisse auf reizvollen und ruhigen Wegen entlang der Rhone. Sie führt vorbei an den Palmenpromenaden des Lac Léman und den malerischen Lavaux-Rebbergen und endet in der Weltstadt Genf.

Markierung entfernen  
Mehr Information

**Jura-Route Basel—Nyon**

Die Jura-Route führt durch geheimnisvolle Landschaften, einsame, tannenbestandene Hochebenen und stille Täler mit quirligen Bächen. Auf einer einmaligen Route radeln Sie abseits der Hektik durch weite Hügelzüge von Basel an den Lac Léman.

Route markieren  
Mehr Information

Koordinaten (m): 512150, 134300

Impressum | Copyright & Datenschutzerklärung | Kontakt

Legende





# IRSN

IRSN : WebSesure - Mozilla Firefox

http://figeac/wsgi/mesure/index

IRSN : WebSesure

Etude et surveillance de la radioactivité dans l'environnement

Sur ce territoire sont représentés 1151 points de mesures

**Recherche simple** Recherche avancée

- Milieu atmosphérique
- Milieu biologique
- Milieu eau
- Milieu minéral

Exécuter

Afficher / Masquer des référentiels

Mesures effectuées sur la zone sélectionnée

Nature	Radionucléide	Unité
<b>Milieu atmosphérique</b>		
<b>Milieu biologique</b>		
Algues	Beryllium 7	Bq par kg
Algues	Beryllium 7	milliBq par mètre carré
Algues	Plomb 210	Bq par kg
Algues	Plomb 210	milliBq par mètre carré
Algues	Potassium 40	Bq par kg
Algues	Potassium 40	milliBq par mètre carré
Mollusques (chair, entier)	Beryllium 7	Bq par kg

Type de prélèvement : Plomb 210

0 60 120 180 240 300 km

Accès Dom-Tom

Sources

- © Fonds Raster Geosignal
- © BD Carthage
- © BD GEOFLA

http://figeac/wsgi/mesure/index#

démarrer

3 SSH, Telnet ... Mes documents xml - sigweb@fi... IRSN : WebSes... IRSN : WebSes... Spatial Data Int... Microsoft Excel ... FR 08:23

# Coffee. What else ?



---

# Is it difficult to install ?

---

1. Download a script
2. Execute this script

**That's it !**

**Supported platform: Windows, Linux (Mac OS working, but not officially supported)**



# Diversity of applications and functions



# Search

Welcome to Cycling in Switzerland

deutsch  
français  
italiano

Enlarged map

Map Satellite

Print

Béranges

- Béranges (VD) - La Tour-de-Peilz
- Berawis (GR) - St. Antonien Ascharina
- Berbel (VS) - Münster (VS)
- Berberg (ZH) - Turbenthal
- Berch (TI) - Peccia
- Berchen (ZH) - Dachsen
- Berchenaux (JU) - Vermes
- Bercher (VD) - Bercher
- Berchères (VD) - Malanad

Routes

- National
- Regional
- Sections
- Local offers
- Cycle rental
- Cycle service

Hiking in Switzerland

Mountainbiking in Switzerland

Skating in Switzerland

Canoeing in Switzerland

Rail, bus, boat

Places

Accommodation

Shopping

Places of interest

Coordinates (m): 687475, 227325 | Geodaten © swisstopo (DV084250.1)

Publishing credits | Copyright & privacy policy | Contact | Legend

---

# How can I create my first MapFish application ?

---

1. Create a MapFish server
2. Create a MapFish client

**That's it !**

# Layer Tree

The screenshot displays a GIS application interface. The main map shows a region in Brittany, France, with various roads and towns labeled. A red rectangle highlights a specific area on the map. The interface includes a toolbar at the top left, a legend and workspace area at the top right, and a layer tree on the right side. The layer tree shows three layers: 'Sentiers littoraux', 'Communes', and 'Scan 1000', each with a visibility slider. Below the layer tree is a search bar and a 'Recentrage par GeoNames' button. At the bottom, there is a 'Résultats de requête' table with four columns: 'DEPARTEMENT', 'TRONCON\_GERE\_PAR', and 'STATUT\_DU\_TRONCON'. The table contains four rows of data, all from the 'Finistère' department. A 'Zoom' and 'Export CSV' button are located at the bottom right of the interface.

**Couches affichées**

- Sentiers littoraux  
Visibilité : de 1:200 à 1:2 000 000
- Communes  
Visibilité : de 1:200 à 1:2 000 000
- Scan 1000  
Visibilité : de 1:250 000 à 1:2 000 000

Ajouter des couches

Recentrage par GeoNames

Aller à :

Recentrage par Référentiels

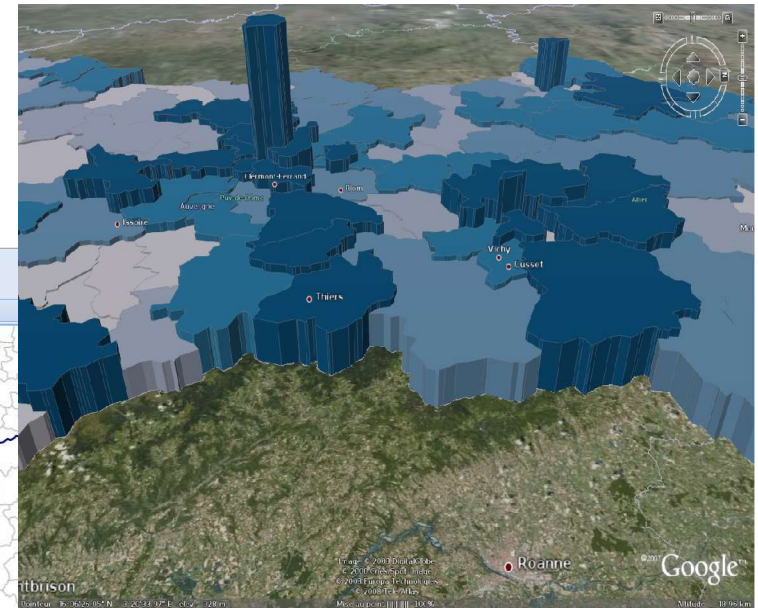
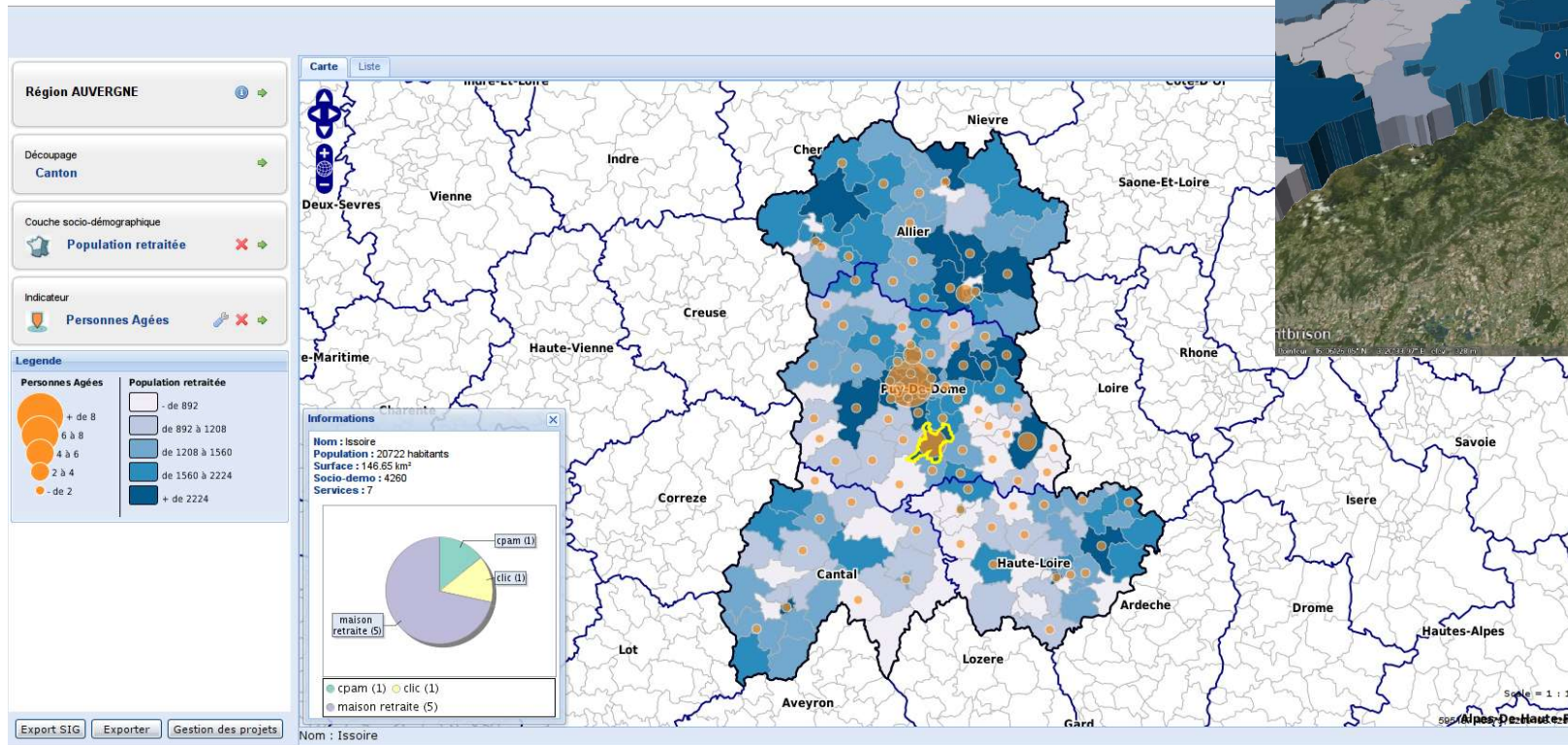
**Résultats de requête**

DEPARTEMENT	TRONCON_GERE_PAR	STATUT_DU_TRONCON
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics

Effacer 157 résultats

Zoom Export CSV

# GeoStatistic







---

**Thank you for your attention**

---

**Camptocamp SA**

**cedric.moulet@camptocamp.com**

**+41 21 619 10 21**

camptocamp SA / [www.camptocamp.com](http://www.camptocamp.com) / [info@camptocamp.com](mailto:info@camptocamp.com)