Gobierno de La Rioja

Government of La Rioja

Stylised Vector Data in Mobile Devices

The Customer

The Government of La Rioja (Gobierno de La Rioja) is the regional public administrative body in charge of managing and providing public services in the territory of the Autonomous Community of La Rioja (Spain). The responsibilities of this body include agriculture and the environment, education, health, industry, tourism and land-use planning.

In order to achieve a precise knowledge of the territory and correctly manage its spatial information, the Government of La Rioja has a department that is responsible for producing geographic reference information and coordinating the georeferenced information produced by the different departments. This department also develops tools for editing and consulting geographical data.

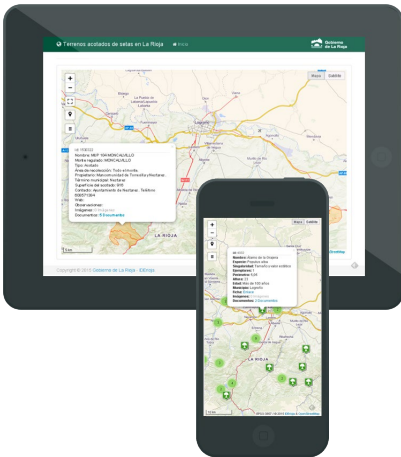**www.larioja.org**

The Challenge

Growth in the use of mobile devices requires the implementation of new solutions for visualising the cartographic information held by the Government of La Rioja. This information covers a wide range of areas (fire protection, sporting activities, environmental data, heritage, tourism, etc.), and a flexible tool that can adapt to a large range of environments and formats is therefore required, along with an extensive and varied menu of information. Visualising geographical information in mobile devices requires regular updating, so that the data can be displayed in vector format on a cartographic background with a very fast response time. In order to quickly fetch the changes made, the applications must have automatic processes that periodically regenerate the vector information from the repositories where it is stored.

The Solution

A JavaScript API based on the Leaflet library has been developed. It is capable of showing the tiled base map, using the Mapnik technology implemented in FME, and the thematic information in vector format generated through an FME process that is periodically updated with FME Server.

The vector format chosen to represent the thematic information was GeoJSON, due to its versatility and wide distribution on the internet, although there are also plans to include KML and GPX formats. The data model and visualisation style of the GeoJSON files are generated dynamically using a predefined configuration, making the tool more versatile when displaying information.

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The FME transformers for working with GeoJSON and the programming language Python has enabled the JSON standard format to be combined with CSS style sheets in order to personalise the graphical output of the data.

The visualisation tool is available on the web page of IDErioja:
www.iderioja.org/?id=30

The solution is based on:

- FME Desktop
- FME Server
- Python
- Leaflet

The Benefits

FME was used to process the information of the basemaps and the vector format thematic layers used in the visualisation tool. A large number of users consult the thematic information made available through this type of service. The fact that this technology is compatible with most devices on the market has increased the range of possible users and the usability of the service. Process automation helps to keep the information up-to-date, allowing the organisation to make better use of resources than with traditional processing systems.

Summary

- Visualisation tool adapted to all types of devices
- Generation of tiled base map with FME
- Automatic generation of vector cartography in GeoJSON format with FME Server
- Improved usability
- Savings in money and time

Customer Opinion

„We have been using FME for some years now to design geoprocessing solutions in different areas of our activity, for data transformation and processing as well as for producing final cartographic documents.

We have found FME to be so versatile that it has become our geomatic Swiss army knife."

Gonzalo López García
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Department

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