Section : 1. Introduction

Module : 1.1. Introduction to OpenStreetMap

About the OpenStreetMap project

"OpenStreetMap (OSM) is a collaborative project to create a free editable database of the world"

This crowdsourced data is made available under the Open Database License (ODBL). The project is supported by the OpenStreetMap Foundation, a non-profit organisation based in England. Data is collected from scratch by volunteers performing ground surveys using tools such as a handheld GPS unit, a notebook, a digital camera. Now, we can also use some external datasource such as satellite imagery or local dataset.

You try:

Goal: Check the content of the OSM database and how data are structured.

Go on osm.org and zoom in your area (a few houses for instance).

- Check the link called "Copyright" on the right top corner. What can you legally do with OSM if you respect some conditions?
- Does the map look complete? Is your house on the map? Is there every roads, even small paths?
- Display the layer "Map Data" and click on some blue objects on the map. These are called features.
- Click on a building, observe its tags on the left panel. Write down on your bloc-note some tags.
- Do the same operation with a road.
- Look at the OSM wiki how we tag highways and buildings.
- Form a small group and explain how these tags work and what kind of geometry is associated with these OSM objects. Let's sum up this together.

Name	Expectation
Website	www.openstreetmap.org
Layers	Display "Map Data"

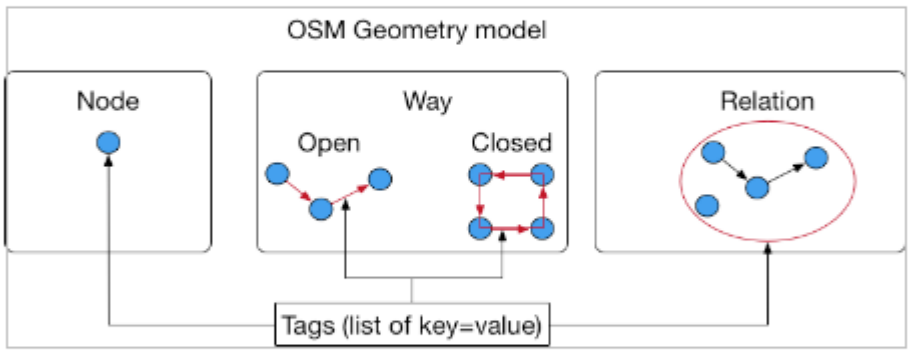
Key “building”	http://wiki.openstreetmap.org/wiki/Key:building
Key “highway”	http://wiki.openstreetmap.org/wiki/Key:highway

More about

OpenStreetMap is not a map, it’s a massive database of geographic data, and it’s all open and free. A feature is describing an object from the real world using some tags. These tags are composed of a key and a value. These keys are normalized by the OSM community and are described on the OSM wiki. The value is also normalized except a few one like the value of the “name” key. As an example, so as to describe a road, we should use at least the first tag. All other tags are optionals:

Key	**Value**
Highway	Residential
Name	Nelson Mandela Street
Surface	Concrete
Oneway	Yes

On the OSM database, you can find three kinds of geometric objects:



Check your knowledge:

1. OSM is a database where:
   a. *You can store vector data*
   b. *You can store raster data (satellite imagery)*
   c. *You can use it for free if you mention the OSM attribution in your results and you respect the license*

Further reading:

- About tags http://wiki.openstreetmap.org/wiki/Tags
- beginner: http://learnosm.org/en/beginner/
- know more about OSM objects http://wiki.openstreetmap.org/wiki/Elements