Cellular Network Map

Real deployment data for cellular networks can be very convenient when elaborating simulation scenarios in scientific papers. In the following, we present an automation tool that enables to extract the geographical data of the base stations for the mobile operators in France.

You need a working python distribution with the following packages:

- selenium
- matplotlib

You also need to have a valid subscription on the ANFR (Agence Nationale des Fréquences) website.

1. Download or fork my repository from GitHub.

2. Launch the crawler script from your command line. The argument of the script corresponds to the postal code as in:

```
python antennes-mobiles-crawler.py 75014
```

You should obtain a text file named `network-map-75014.txt` in the `/data` directory. This file contains information on the antennas in the selected geographical area.

```
66007; 2G 3G 4G; BOUYGUES TELECOM; 1995-09-01; 2014-09-26; 156 R LÉON
MAURICE NORDMANN; 75013; PARIS-13E--ARRONDISSEMENT; Oui;
351124; 2G 3G 4G; BOUYGUES TELECOM; 2004-08-20; 2014-12-05; 22/24 R DU
FAUBOURG ST JACQUES; 75014; PARIS-14E--ARRONDISSEMENT; Oui;
```

Go to http://www.antennesmobiles.fr/, select the antenna types, the city and copy the antenna ids (at the bottom of the page) in a text file (see for example orange-3G-rennes.csv)

2- Go to http://www.cartoradio.fr/cartoradio/web/, select the same city and download the data (you should sign in and you will receive date by mail)

3- Open python antenna-coordinate-generation.py and make the necessary modifications (mainly pointing to the corresponding data files)

4- Launch the python script and watch back!

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