

Working with GPS in a mobile phone

This is “tutorial” for measuring and displaying data from mobile phone GPS in a PC.

step one find application

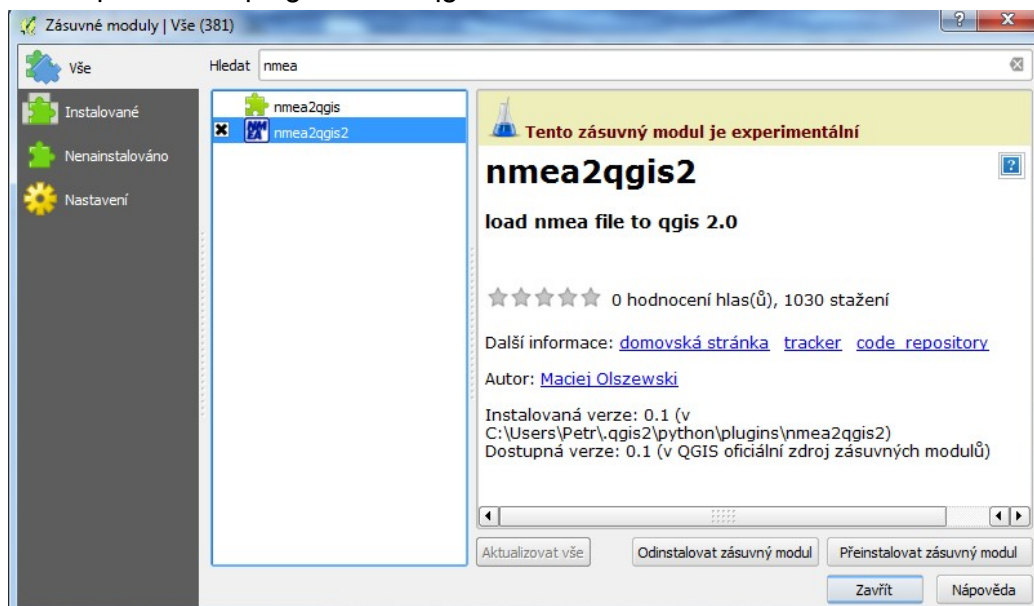
- ideally find something that record NMEA sentences from GPS and runs in a background.
- great app [NMEA Data Logger](#) for that is a [google play](#) it does exactly what it sais:
 - turn on GPS in settings
 - allow application to get position data and to write to USB
 - turn GPS in a application and it will start to record data into file located at: internal storage/NMEADataLogger/log_date_time.txt
 - it runs in a background!

record the data

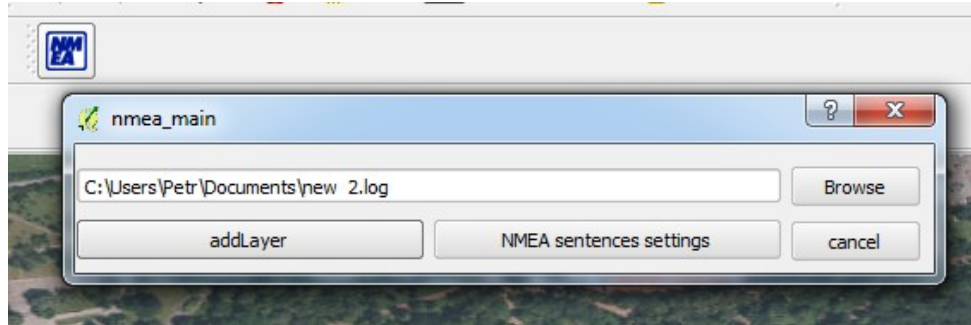
- pick up the route and start recording using the application
- close the app after recording is done

interpret data

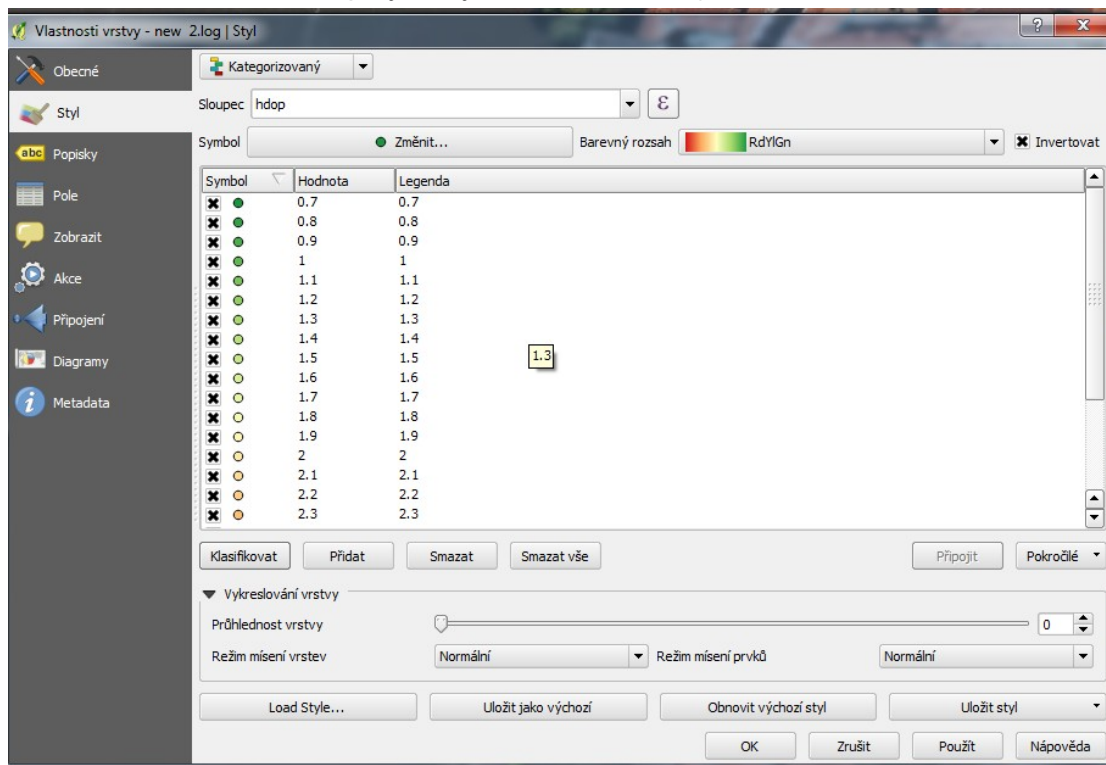
- use QGIS for visualization of the data (download it here)
- load experimental plugin nmea2qgis2



- to use data with this plugin remove data part from each line so it starts with \$ (i.e. in excel using text to columns feature or using cat command)
- start the plugin and check all boxes at “NMEA sentence settings”



- select log file (without the date part) and click add layer (the layer will appear in layer window) if there is a problem with visualization than you might have there 0 coordinates - just delete them (start edit vector layer, select point and hit del)
- use layer properties to set legend (categories depending on data, ie quality, number of satellites, etc will be displayed by different colours)



- add ortofoto to have it nice, select "layer->add layer->add WMS layer ..." (or Ctrl+Shift+W) the popup will appear fill in NAME (choose something) and URL of WMS service (ortofoto: http://geoportal.cuzk.cz/WMS_ORTOFOTO_PUB/WMSservice.aspx) for other data look here <http://geoportal.cuzk.cz>

Vytvořit nové WMS spojení

Podrobnosti spojení

Název

URL

Pokud služba vyžaduje základní autentifikaci, zadejte uživatelské jméno a případně heslo

Uživatelské jméno

Heslo

Referer

DPI-Mode

Ignore GetMap/GetTile URI reported in capabilities

Ignorovat GetFeatureInfo URI hlášené ve schopnostech

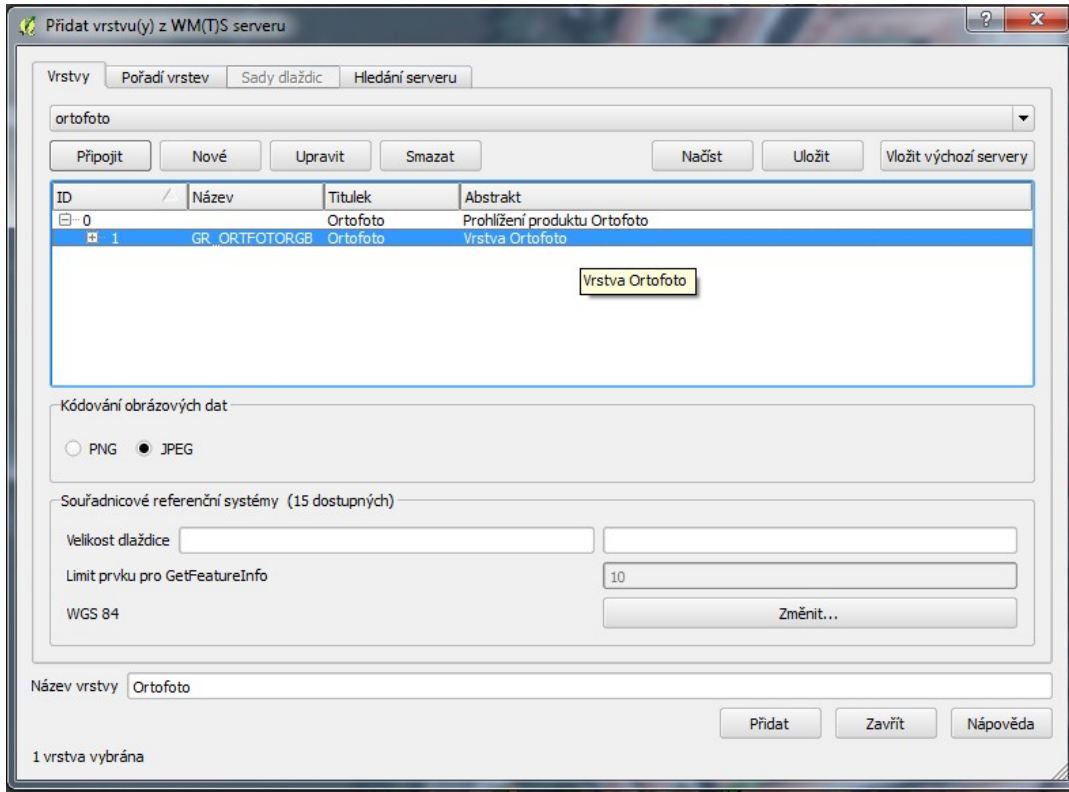
Ignorovat orientaci osy (WMS 1.3/WMTS)

Invertovat orientaci osy

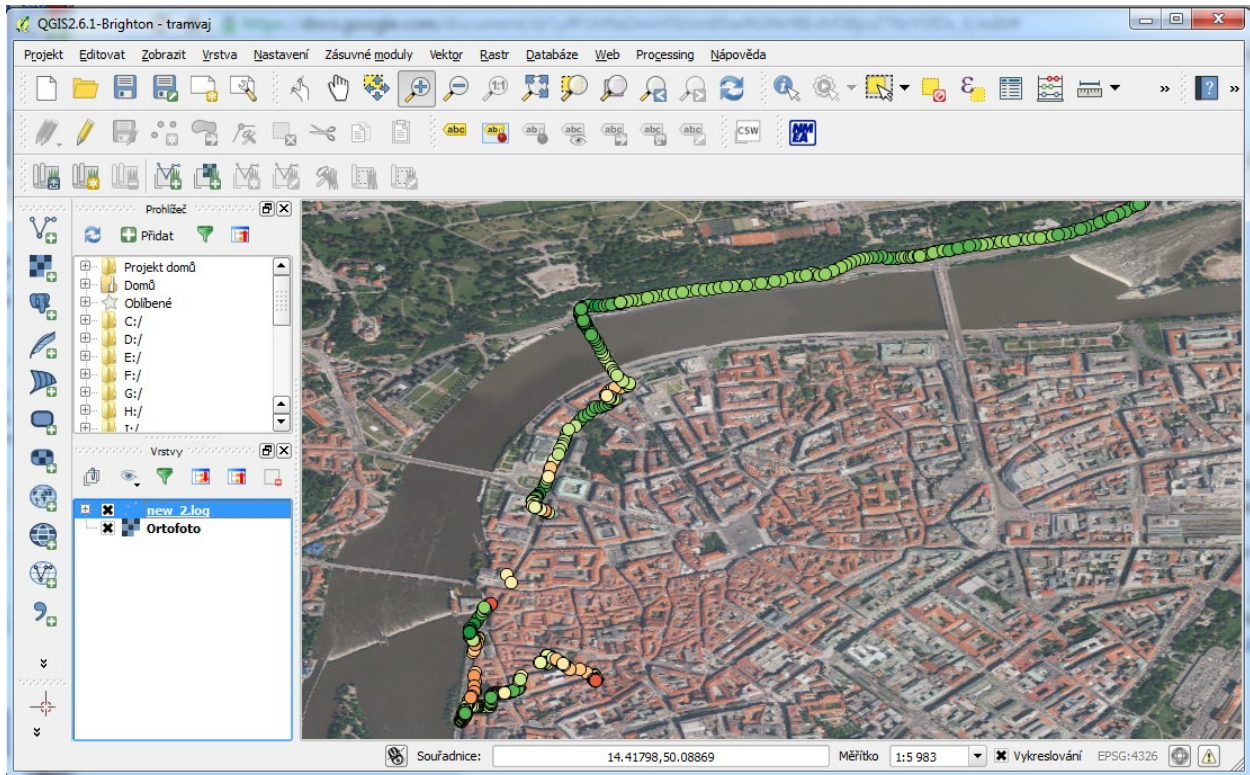
Smooth pixmap transform

OK Zrušit Nápověda

- click connect and in window below select a root of the structure



- click ADD
- violá layer is here



Done