Weedmapping.

Visual management of data

MAI 2016
First step : a global mapping system.

At Infrabel the system is called Georamses :

- IGN (Institut Géographique National): official map as base in the system

- Additional information based on official shapefiles (ex : water catchment) or internal inventory

- Railview system (similar to google street view) based on pictures taken by our measurement train.
Location d'un train épandeur. Gestion de la végétation dans les voies principales.
Location d'un train épandeur. Gestion de la végétation dans les voies principales.
Georamses and environment

• Water catchments zones
• Natura 2000
• Other zones possible

All data are based upon official shapefiles from the 3 regions

Next example : Natura 2000
Looking for coordinates with Georamses

Exemple of a water catchment (City of Leuven)

- Global view

- Zoom versions

- Railview (= the google street view from Infrabel)
<table>
<thead>
<tr>
<th>Localisation ferroviaire</th>
<th>Localisation administrative</th>
<th>Passages à niveau</th>
<th>Point d'accès</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province</td>
<td>Brabant Flamand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrondissement</td>
<td>Louvain</td>
<td></td>
<td></td>
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<td>Commune</td>
<td>Bierbeek</td>
<td></td>
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<tr>
<td>Localisation</td>
<td>Korbeek-Lo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordonnées Lambert</td>
<td>X: 177648,9750</td>
<td>Y: 171637,9370</td>
<td></td>
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<tr>
<td>Coordonnées GPS (degrés décimaux (DD))</td>
<td>Lat: 50,854476</td>
<td>Long: 4,761416</td>
<td></td>
</tr>
<tr>
<td>Coordonnées GPS (degrés sexagésimaux (DMS))</td>
<td>Lat: 50° 51' 16.114''</td>
<td>Long: 4° 45' 41.098''</td>
<td></td>
</tr>
</tbody>
</table>
Location d'un train épandeur. Gestion de la végétation dans les voies principales.
Mapping on the train

- Original rail map downloaded on the train’s computer

- Protected areas on shapefile format downloaded

- To secure the protected area, a buffer zone of 100 m has been integrated. The buffer zone represents the necessary time to ensure the adapted chemical arrives in the nozzles.
Map on the train with protected areas.
Mapping on the train
Mapping on the train
Weedmapping

Next step (study phase now):

- Sort data by theme (% weed infestation for example)

- You need to choose a accuracy to fix the data on a map
  Example: a new point every 100 m

- You also need a good GPS resolution allowing you to detect if the data collected is located on track A or B → in some cases you’ll have to add extra verifications