GIS for Emergency Medical Services EMS GIS für den Rettungsdienst GIS pour le service de secours









HSR HOCHSCHULE FÜR TECHNIK RAPPERSWIL







Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Eidgenössisches Volkswirtschaftsdepartement EVD Kommission für Technologie und Innovation KTI Förderagentur für Innovation





Markus Honegger

2009 – now

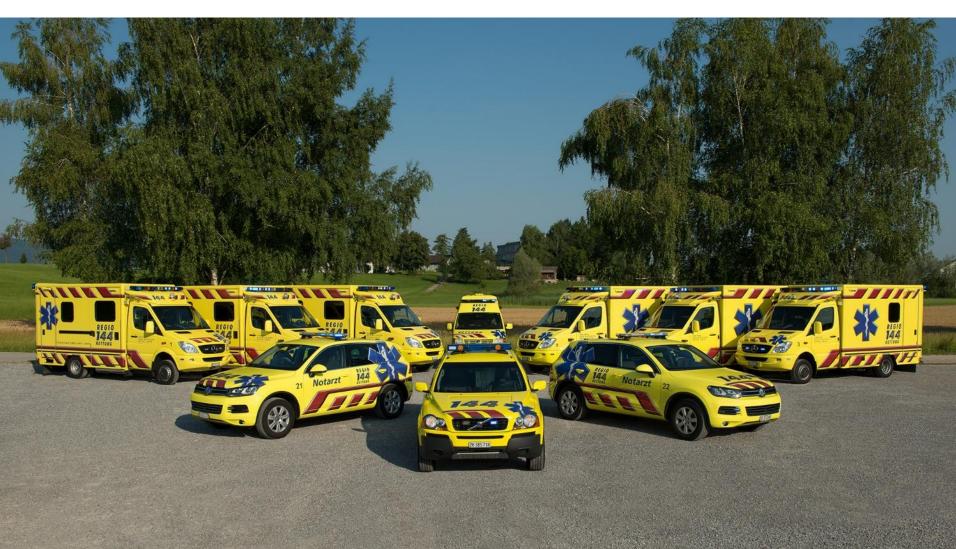
working as a paramedic

then - 2009

working in the IT industry



Regio 144 – Rüti ZH



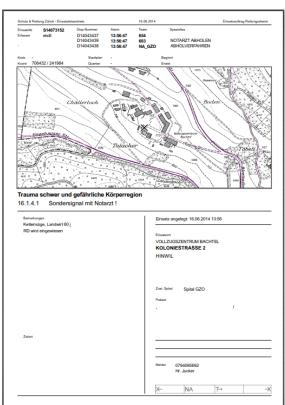


navigation ressources

- local knowledge
- turn-by-turn GPS
- operation fax
- smartphone
- local maps (on paper)



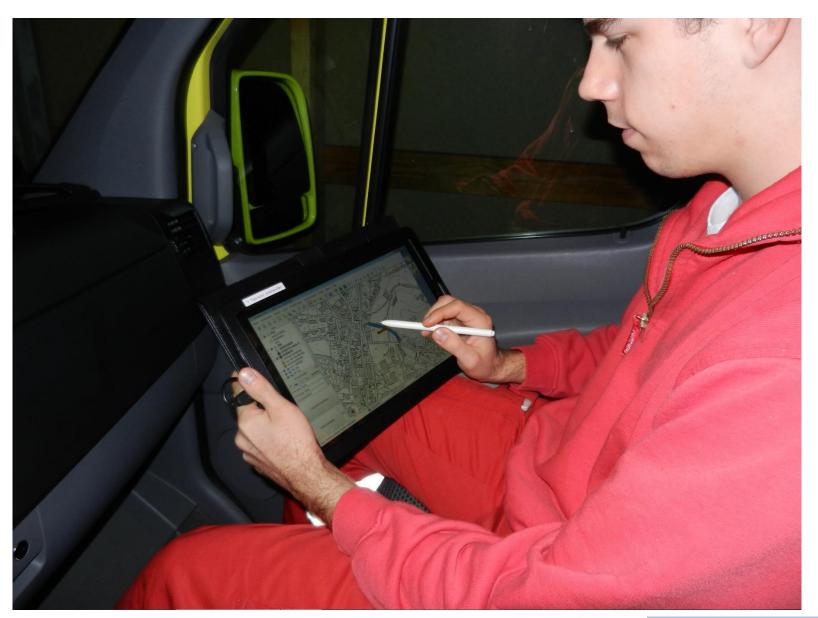




before after



before after









driver

find the location roughly

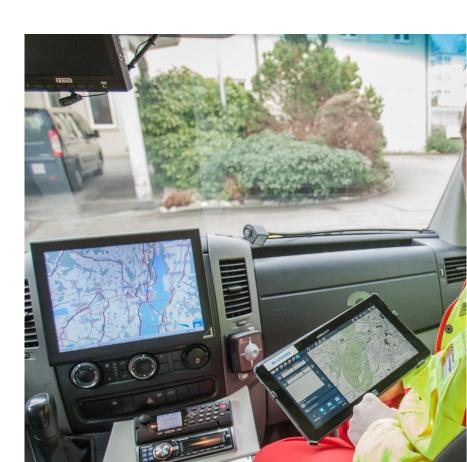
co-driver

- route overview
- orientation around the target area
- accurate navigation



OVETVIEW

- digital maps instead of paper
- search by street / house number or coordinates
- object information
- entry information
- temporary
 - events/obstructions
- fully offline





Components

QGIS Plugin/GUI **BLUgis** maps and geo data Hardware, OS (Windows)



functions

base maps

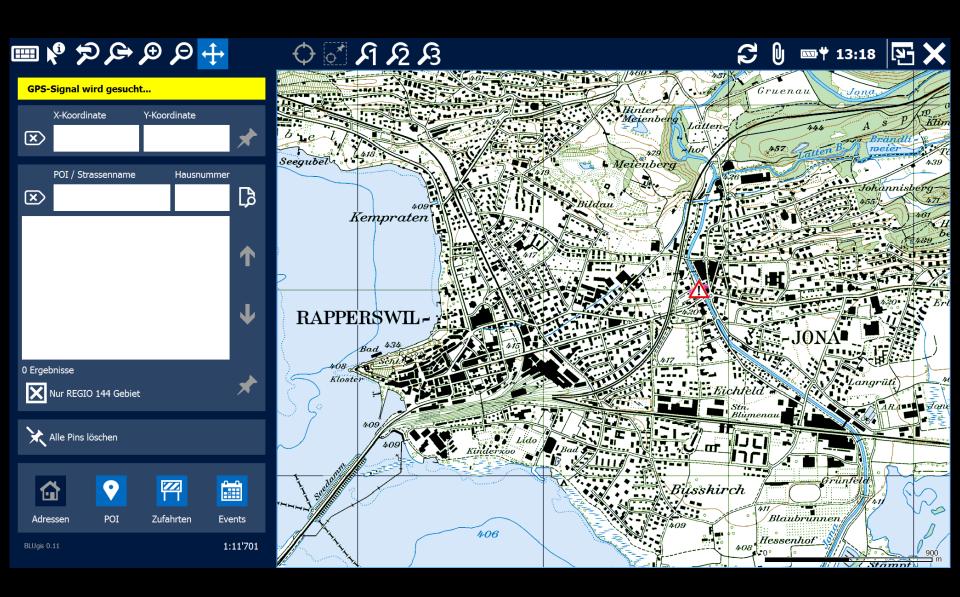
Landeskarten Swisstopo 1.25'000, 1:50'000 Übersichtsplan 1:5'000

addresses

AV and GeoPost

- POI point of interest manually added POIs like hospitals, buildings, local surgery, ...
- entries good, bad an «no ways».
- **events** temporary information like roadworks, fairs, sport events, ...
- **newsboard** an easy way to spread any files (e.g. PDF's) to all tablets.







Datenmaterial

Basismaterial

Zusatzinfos

Temporarinfos

Kartenmaterial Landeskarten Übersichtsplan

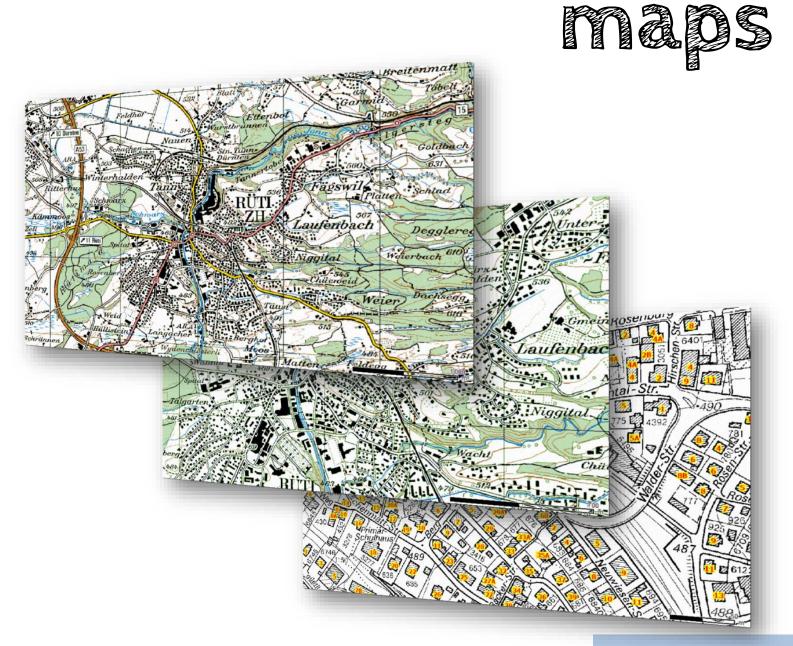
Zufahrten

Veranstaltungen

Adressen (AV, GeoPost)

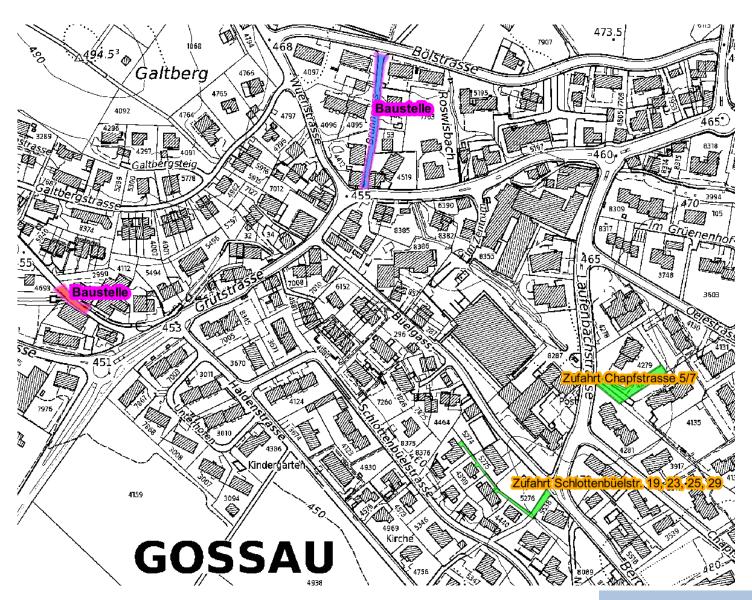
Point-Of-Interest

Baustellen

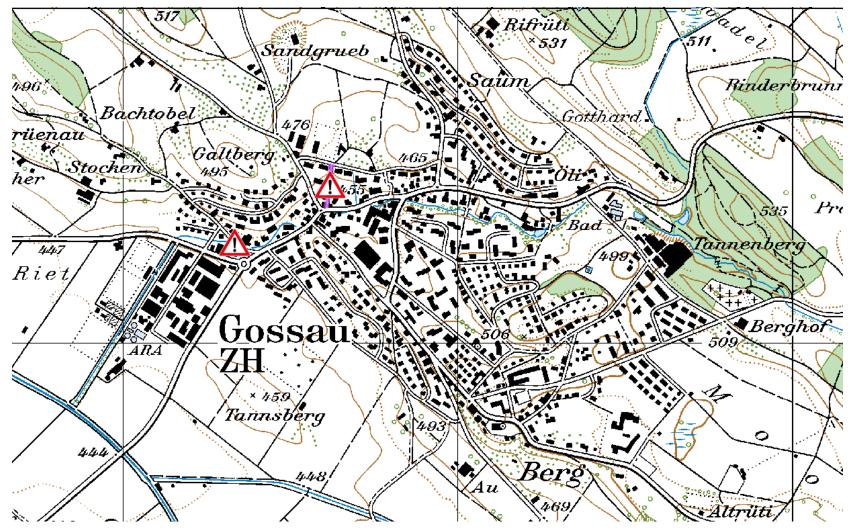




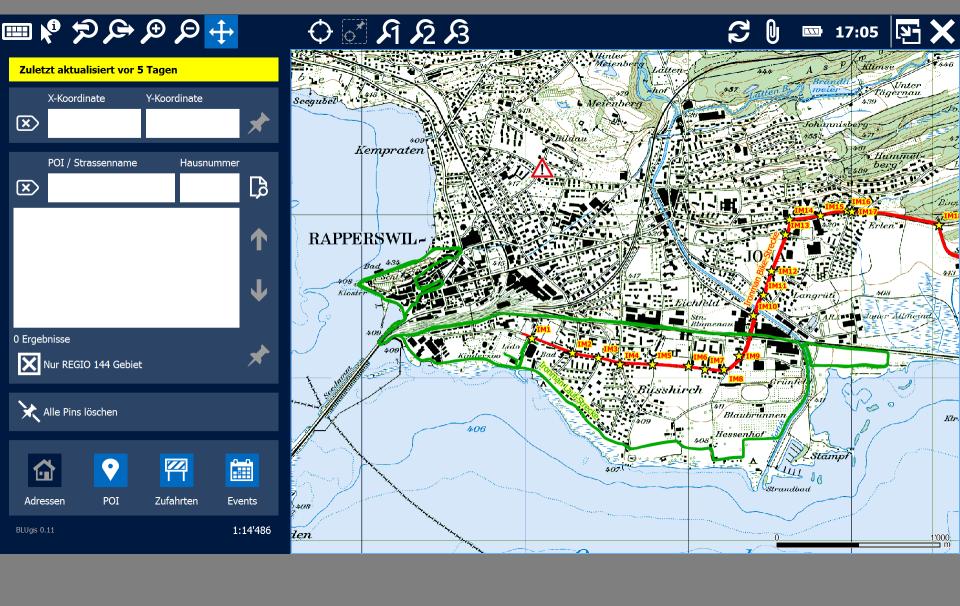
events, entres



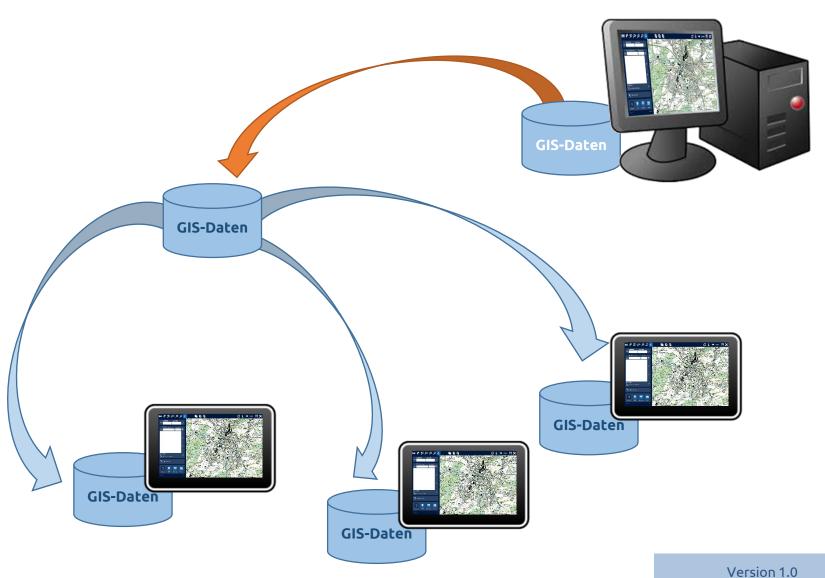
events







data manasement





data manasement

- .QGS project file
- raster files
 Pixelkarten, ÜP
- spatialite databases
 addresses (poin), poi (point),
 events (polygon), entries (polygon)
- attached files
 PDF, JPG, ...
- symbols warnsigns, ...





- main developer: Josua Stähli
- support: Stefan Keller, Rafael Krucker, Tobias Schmutz
- QGIS plugin written in Python
- touch optimized GUI
 realized using Qt style sheets
- GPS

Windows Location API (.NET Framework)
C# console application, read out by QGIS plugin

file replication
 updates (even opened) sqlite databases based on
 file size, change date, ...



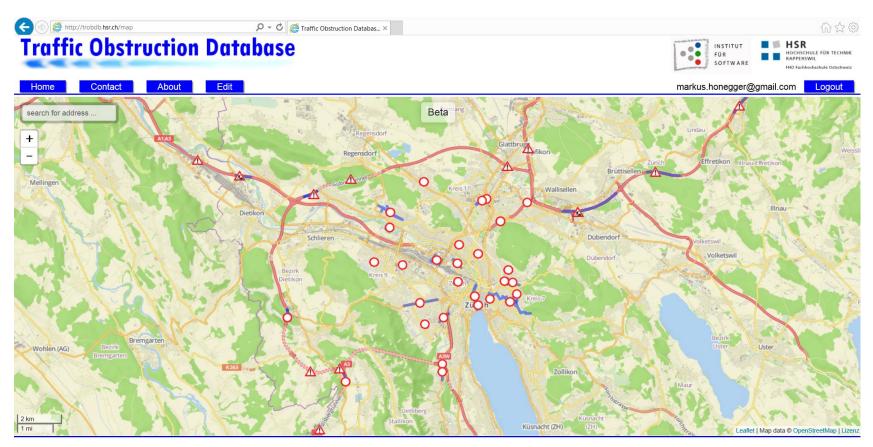


Traffic Obstruction Database Verkehrshindernis-Datenbank

- «side project», lead at HSR
- webservice, registration needed
- implemented: Astra, Tiefbauamt Stadt Zürich
- http://trobdb.hsr.ch
 http://giswiki.hsr.ch/TROBDB_Webservices



http://trobob.hsr.ch



Swiss map data 25.03.2014 ODbL by OpenStreetMap · Data sources: VMZ, Stadt Zürich · Data license

