RGI-233 use cases

Amsterdam: parking by citizens

• ANWB: mobile tourist information

TUDelft

Goal

- Amsterdam: better information and service to customers (secondary: test usefulness of topologically structured data)
- ANWB: improve map display and interaction on small mobile devices (information content like printed map)



Intended customers

- Amsterdam: general public with the intention to park their car somewhere in Amsterdam (and parking guards)
- ANWB: general public tourists walking/riding/driving around somewhere in the Netherlands
- ... with small mobile device ("smartphone") as expected to be available in the near future



Requirements Amsterdam case

- Provide information to persons who are looking for a place to park their car in Amsterdam, like:
 - Where am I?
 - What parking rates do I have to pay here?
 - How long can I stay?
 - Are alternative parking facilities available nearby, at what rates, are there any car parks nearby?
 - Location based on GPS (fallback: user input)
 - No specific requirements with respect to map displays, but should be clear, informative, provide overview if necessary and offer smooth panning and zooming



Requirements ANWB case (1)

- Provide "street-finder" information to tourists in the Netherlands supplemented by tourist attractions and other POI (later: route planner)
 - Where am I? What is this building/object I am facing? (How do I get to the railway station?)
 - Address entry must be possible on postal code - street - number - city (combinations) and selection from list if more matches occur
 - Smooth zooming and panning should be possible in all directions, from NL overview to 1:2500 (also rotation required)



Requirements ANWB case (2)

- "3D" (tilted) map views comparable to current navigation systems should be possible
- Text (names, roads) should never be upside-down
- Map is controlled by cursor buttons and central button of keyboard of mobile device
- At scale 1:10,000 or smaller icons representing POI are displayed (if selected popup shows more information)
- Application is browser based (min. 128 x 128 pixels, 4096 colors)
- After validation of address, device should display map within 5 seconds (based on bandwidth available)



Additions after initial prototype

Amsterdam: add daily/hourly changing data to information

ANWB: add route planner to application



Available datasets Amsterdam

- Large scale base map (GBKN, contains parking places)
- Topographic base map (1:10,000, topology)
- Parking areas
- Car parks



Available datasets ANWB

- Address entry files
 - Postal code
 - Street
 - Number
 - City
- No base map for tourist information available (via partners in project or other contacts?)



Some conclusions and proposals

- Major requirements of two use cases overlap to a large extent and fit well within scope of project
- Some requirements somewhat outside current focus of project?
- Availability of map data might be a problem (ANWB)
- Combining various datasets might be a problem (Amsterdam)
- First prototype will be in a simulated environment (avoid problems with e.g. resolution, connectivity, bandwidth)
- Second prototype will make use of real mobile devices

