LBS-Mobile
A New Way of Handling Data

LBS Mobile – Location Based Services

capture, edit, and manage Object data space-and time-independent
LBS Mobile – technical requirements

• Runs in normal Internet browser
• On a commercial tablet, PC or Smartphone
• No software to install

LBS – what can it be used for?

• Reacquisition of objects on site
• Add existing objects other attributes
• State controls
• Documentation of operations / maintenance

• For everything that has somehow coordinate ...
→ Surfaces, lines, point objects
LBS – Examples

- Sewer manhole inspection
- Conservation Inventory
- Robidogs
- Parking Management
- Flower boxes and hedges
- Benches
- etc.
LBS Specialities / Advantages

• Central data storage, mobile access
• Various types of maps
• Guided workflow for different users
• Different processing masks depending on the condition
• Direct upload of photos and documents

Multidimensional Data Flow

• More than an information provider:
  • facilitates checking and editing data
  • adding new attributes or pictures to objects
  • registering new data
• Basic functions with user's position:
  • Routing to the nearest point of interest (POI)
  • Creating new objects based on coordinates
Inventory of Nature Conservation Objects

- Objects of varying type and geometry with different attributes
- Trees under protection
  - point objects
- Safety fences for amphibians
  - line objects
- unobstructed fores
  - polygons
GUI optimized for mobile devices

- All objects modeled in WebGIS
  - attributes and relations
- optimized for use on mobile devices
- Map with current position
  - local orientation
  - locating of objects
Workflow needs no paper

- New Object
  - at user's current position
  - Attributes recorded into the database
  - No paper, no need to draw a sketch of the situation
  - pictures can be uploaded and assigned to the right object
- Intuitive, easy to learn, big buttons, "fire and forget"
- Realtime visible in webservices
Maintance Planning & Documentation

- Safety fences for amphibians need regular maintenance
- LBS-Mobile for planning and documenting
  - existing objects can easily be located by the help of the smartphone or tablet
  - When maintenance is done
    - Updating status on site: No further documentation later on
    - Specific remarks can be added to an object including a date for follow-up.
Monitoring of Areas

- Areas of unobstructed forest are checked yearly by recording the occurrence of indicator plants
  - Number and type of the plants are directly recorded into the database
  - Necessary entertaining work are set
- The completion of the maintenance work later on will also be documented in the application.

LBS – the question of the accuracy...

- Integrated GPS
- External antenna / receiver
- Piksi
Where are we going?

• Presentation of spatial data is no more a problem
• Geoservices are becoming increasingly important
• Making available geoservices
• Benefit from geo-services
• Added value through linking of information
• Use of mobile devices

CONTACT

Peter Dütschler
ALPGIS AG
Fliederweg 11
CH-3601 Thun
SWITZERLAND
Tel. +41 33 224 0430
Fax + 41 33 225 4060
p.duetschler@alpgis.ch
www.alpgis.ch
LBS – Examples

• Traffic Sign Cadastre

• Manhole
LBS – Beispiel:
• crack protocol

<table>
<thead>
<tr>
<th>Riss 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aufnahmeobjekt:</td>
</tr>
<tr>
<td>Stockwerk:</td>
</tr>
<tr>
<td>Bauteil:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inspektionen</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.02.2014</td>
</tr>
<tr>
<td>Länge:</td>
</tr>
<tr>
<td>Breite:</td>
</tr>
<tr>
<td>Richtung:</td>
</tr>
<tr>
<td>Richtung:</td>
</tr>
<tr>
<td>Richtung:</td>
</tr>
</tbody>
</table>

CONTACT

Peter Dütschler
ALPGIS AG
Fliederweg 11
CH-3601 Thun
SWITZERLAND
Tel. +41 33 224 0430
Fax + 41 33 225 4060
p.duetschler@alpgis.ch
www.alpgis.ch