Real-time OSM

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openrouteservice (ors)

• around since ~ '08 and now part of the Heidelberg Institute for Geoinformation Technology
• free API for Routing (+Matrix) | Geocoding | Isochrones
• fully based on open data → OSM!
• FOSS!
real-time OSM

new requirements
new requirements

need:
up-to-date database + routing graphs
OpenRouteService: slow update of the database/routing graphs
real-time OSM

Solution

one ORS instance per region

speeds up graph generation
real-time OSM
real-time OSM

up-to-date data?

real-time OSM

- provides custom OSM extracts
- keeps them up-to-date in near real-time
real-time OSM

Real-time OSM task manager

<table>
<thead>
<tr>
<th>Name</th>
<th>URL</th>
<th>expires</th>
<th>added</th>
<th>update interval [s]</th>
<th>updated</th>
<th>mean runtime [s]</th>
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</thead>
<tbody>
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<td>/10_nepal.osm.pbf</td>
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<td>2018-01-11T09:54:58</td>
<td>57.1</td>
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<td>2018-01-13T00:00:00 60</td>
<td>2018-01-11T09:55:32</td>
<td>27</td>
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</tbody>
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Showing 1 to 3 of 3 entries

OpenRouteService

openroute

service
real-time OSM

Technical details

• Node.js server
• manages update-tasks in sqlite3 data base
• keeps data up-to-date
• provides an API
• provides a web frontend for simple administration
real-time OSM

Update strategy

- find and download smallest Geofabrik extract for area of interest. crop accordingly.
- if this fails, rely on planet file
- continuous updates with osmupdate
Access to our service?

http://realtimeosm.openrouteservice.org

info@heigit.org
Grazie!

https://github.com/GIScience/OSM-realtime-update
http://realtimeosm.openrouteservice.org
http://giscienceblog.uni-hd.de

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