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Geoapplications development
<http://rgeo.wikience.org>

Task 03

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Data selection

- Select an area on the globe where OpenStreetMap data are available
- Download a part of that data with at least 100 geometries in SHP format

Data preparation with Java

- Convert the data to GeoJSON format
- Place that data directly into your HTML with leaflet code

JavaScript

- Visualize your data in GeoJSON
- Enable drawing and dragging additional geometries
- Output to console in WKT the list of geometries that were intersected with the geometry you've just drawn + Egenhofer matrix for A and B, where A is the geometry that has been just drawn, B the geometry with which A intersects (example is on the next slide)

Example

The screenshot displays a web-based GIS application interface. The main map area shows a pink polygon overlaid on a stadium complex. The stadium is labeled 'Центральный стадион 2А'. To its left is a 'Крытый футбольный легкоатлетический манеж'. The map also shows various streets and buildings, with labels like 'Улица Батурина' and 'Улица Карла Маркса'. The interface includes a toolbar on the left with navigation and editing tools. At the bottom, there is a console window showing technical data and a list of index.html files on the right.

Console Output:

```

Geometry added:
POLYGON ((49.09446716308594 55.797734992134835, 49.10184860229492 55.79677004398793, 49.100003242492676 55.79566032405947, 49.09446716308594 55.797734992134835))
Intersects with:
MULTIPOLYGON (((49.1019791 55.7966577, 49.1008025 55.7962678, 49.1007729 55.7961829, 49.1007492 55.7961545, 49.1011448 55.7959846, 49.1017198 55.7959255, 49.1025066 55.7961887, 49.1019791 55.7966577)))
DE-9IM matrix:
2,1,2
1,0,1
2,1,2
AB BA
Equals: false false
Disjoint: false false
Intersects: true true
Touches: false false
Within: false false
Contains: false false
Overlaps: true true
Covers: false false
CoveredBy: false false
  
```

Index.html Files:

- index.html:217:13
- index.html:208:13
- index.html:202:13
- index.html:155:17
- index.html:156:17
- index.html:157:17
- index.html:195:17

Deadline

27 Nov 2018

Marking

- map with GeoJSON geometries: 6
- drawing new geometries +0.5
- dragging +0.5
- editing +0.5
- WKT to console +0.5
- Egenhofer matrix (according to the example) +1
- visual control for changing base layers +1



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Thank you
for your attention!