8.3 Web & Interactive Maps

Overview

Interactive maps are viewed as the modern equivalent of visual communication with maps. This involves the creation and study of the visual representation of data(maps). To communicate information clearly and efficiently, data visualization uses statistical graphics, plots, information graphics and other tools. The use of interactive maps gives users an opportunity to change the display of the map to one's preferences freely.

This section covers two tools for creating interactive maps using OSM data: **uMap** and **Overpass Turbo**.

uMap lets you create maps with OSM layers quickly. The platform features sample maps to inspire your use of layers, points of interest, design and licensing.

- Level: Beginner
- umap.openstreetmap.fr

Overpass Turbo Query is a web-based data filtering tool for OSM. You can run queries and analyse the resulting OSM data interactively on a map. There is an integrated Wizard that makes creating queries easy.

- Level: Beginner/Intermediate
- overpass-turbo.eu

Overpass Turbo

Overpass Turbo Query is a web-based data mining tool for OpenStreetMap. It runs any kind of Overpass API query and shows the results on an interactive map.

Skills and Technology Needed

- Computer with
- Internet connection
- Recommended: computer mouse

How to create an interactive map in Overpass Turbo

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uMap

uMap lets you create a map with OpenStreetMap layers and embed it in your site. All within a few minutes. You can create custom maps (see the examples below). It is powered by open-source, WTFPL-licensed software.

Skills and Technology Needed

- Computer with
- Internet connection
- Recommended: computer mouse

How to create an interactive map in uMap

How to Link Umap and Overpass

Linking umap and overpass makes your interactive map update as OpenStreetMap data is being updated.

Skills and Technology Needed

- Computer with
- Internet connection
- Recommended: computer mouse

How to create an interactive map in uMap

How to Link Umap and Overpass Linking umap and overpass makes your interactive map update as OpenStreetMap data is being updated. Below is the process:-

1. Head to overpass-turbo.eu.
2. Click Wizard and search for source=HOT-UG (learn about OpenStreetMap tags here)
3. Click Export, Query, and then compact.
4. Copy the query link as text and paste into a text editor (e.g. notepad). If you use the “copy link” feature of your browser you may first have to decode the URL by pasting in here and clicking Decode before copying to output to a text editor.
5. Next, we need to take this text and generalise it to work on any map area:
6. Add “http://overpass-api.de/api/interpreter?data=” without quotes before the copied text.
7. Replace the hard-coded latitude and longitude coordinates with “({south},{west},{north},{east})” without quotes. This will need to be done three times; after node[“source”=”HOT-UG”], way[“source”=”HOT-UG”], and relation[“source”=”HOT-UG”].
8. The final result should look like: http://overpass-api.de/api/interpreter?data=[out:json][timeout:25];(node“source”=”H UG”;way“source”=”HOT-UG”;relation“source”=”HOT-UG”;);out body;>;out skel qt;
9. Now navigate to umap.openstreetmap.fr or one of the alternate instances listed here.
10. Click Create a map and pan/zoom in to the area of interest.
11. Click the layers button and then click Edit (the pencil symbol).
12. In the right-hand pane click Remote data and paste the URL we constructed in step 5 into the Url box.
13. Select “osm” from the drop-down Format list.
14. Tick the dynamic checkbox.
    1. Optional: If you have a lot of data you may want to limit the display to certain zoom levels (so as to not put too much strain on the Overpass servers). You can do this by entering a min zoom level in the From Zoom box. Here I have entered 13 as my minimal zoom level.
15. Customise using the options on the right. Here I’ve changed the map background to OSM monochrome and changed the colour of the overlay data.
16. Click More on the left-hand side, followed by Embed and share this map.
17. Copy and paste the embeddable iframe (You may need to click Current view instead of default map view in the iframe options box.