

OpenStreetMap vector tiles

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OSM Vector Tile Rendering

General information sources/overviews

- <http://www.paulnorman.ca/blog/2016/11/serving-vector-tiles/>
- https://wiki.openstreetmap.org/wiki/Vector_tiles
- <https://github.com/mapbox/awesome-vector-tiles>

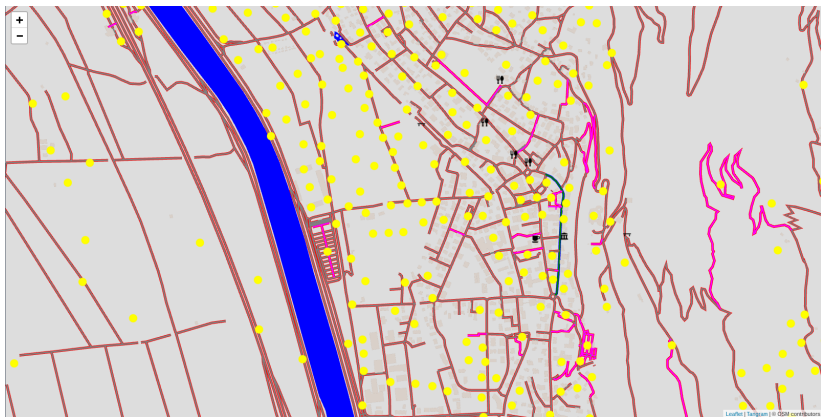
"Stacks"

- Kartotherian
 - <https://github.com/kartotherian/kartotherian>
 - iirc, failed to build/install when I tried it, did not even work with one of the supported NodeJS versions
- Tilezen
 - <https://github.com/tilezen> (Tile server)
 - <https://github.com/tangrams> (Styles, Map rendering)
 - <https://github.com/tangrams/cartography-docs/blob/master/styles.md> (list of basemap styles)
 - <https://github.com/tilezen/vector-datasource/wiki/Mapzen-Vector-Tile-Service> (setup and data import)
 - Got something working
 - Requires several Python modules not available in Debian
 - At least seemed to work with normal osm2pgsql (instead of using the tilezen fork)
 - Tangram styles must be modified to use your own render server
- OpenStreetMap Carto Vector Tiles
 - <https://github.com/geofabrik/openstreetmap-carto-vector-tiles>
 - Not tried, not sure this is still maintained
 - Uses tessera/tilelive
- OpenMapTiles
 - <https://openmaptiles.org/docs/>
 - set QUICKSTART_MAX_ZOOM=14 in .env to be able to zoom in
 - iirc, failed to build/install when I tried it, at least the part that renders raster tiles
- Tilemaker
 - <https://github.com/systemed/tilemaker>
 - Seemed to have problems with the padded SOSM Switzerland extract
 - The provided OpenMapTiles config/processor worked with Lichtenstein, but did not seem to terminate with the Geofabrik Switzerland e
 - Haven't found a good way to actually render the vector tiles in the browser
 - <https://github.com/SpatialServer/Leaflet.MapboxVectorTile> was usable to render some data, but is probably only suitable to render eg.

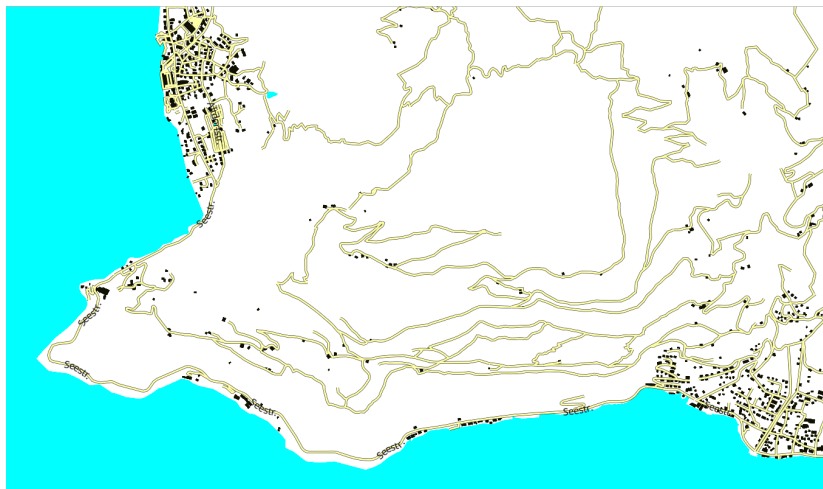
Vector tiles in Tegola from osm2pgsql database

```
localhost:9090/capabilities/osm.json
JSON Raw Data Headers
Save Copy Filter JSON
attribution: ""
bounds:
  0: -180
  1: -85.0511
  2: 180
  3: 85.0511
center:
  0: 0
  1: 0
  2: 0
format: "pbf"
minzoom: 0
maxzoom: 22
name: "osm"
description: null
scheme: "xyz"
tilejson: "2.1.0"
tiles:
  0: "http://localhost:9090/maps/osm/{z}/{x}/{y}.pbf"
grids: []
data: []
version: "1.0.0"
template: null
legend: null
vector_layers:
  0:
    version: 2
    extent: 4096
    id: "landcover-low-zoom"
    name: "landcover-low-zoom"
    geometry_type: "polygon"
    minzoom: 5
    maxzoom: 9
    tiles:
      0: "http://localhost:9090/maps/osm/landcover-low-zoom/{z}/{x}/{y}.pbf"
  1:
    version: 2
    extent: 4096
    id: "landcover"
    name: "landcover"
```

Rendering in browser with Tangram



Rendering in browser with Mapbox-GL



More work

- Use openstreetmap-carto style with the vector tiles
- Means writing some conversion from carto-css to mapbox-gl or tangram style language, which turns out to be not so straight forward.
- The style is huge, so conversion by hand is also a huge effort.