

Datenquelle OpenStreetMap

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22 Februar 2017

Worum geht es?

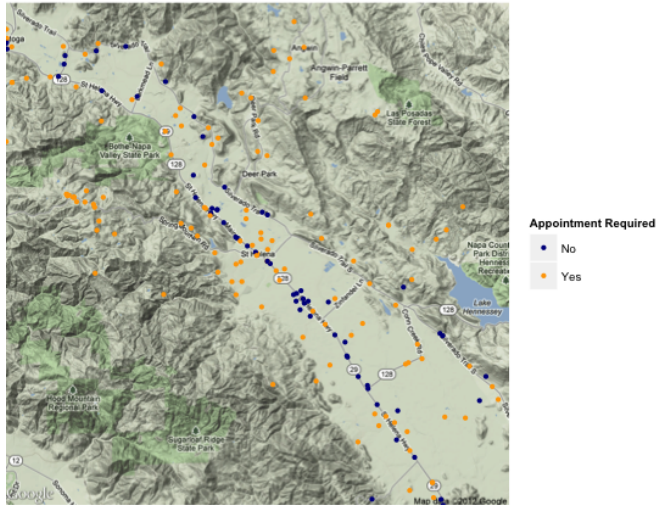


Figure 1: Weine probieren im Napa Valley?

OpenStreetMap.org ist ein im Jahre 2004 gegründetes internationales Projekt mit dem Ziel, eine freie Weltkarte zu erschaffen. Dafür sammeln wir weltweit Daten über Straßen, Eisenbahnen, Flüsse, Wälder, Häuser und vieles mehr.

<http://www.openstreetmap.de/>

OpenStreetMap (OSM) ist ein kollaboratives Projekt um eine editierbare Weltkarte zu erzeugen.

Wikipedia - OpenStreetMap

OSM Map Features

Amenity

Used to map facilities used by visitors and residents. For example: toilets, telephones, banks, pharmacies, cafes, parking and schools. See the page [Amenities](#) for an introduction on its usage.

Key	Value	Element	Comment	Rendering	Photo
Sustenance					
amenity	bar		Bar is a purpose-built commercial establishment that sells alcoholic drinks to be consumed on the premises. They are characterised by a noisy and vibrant atmosphere, similar to a party and usually don't sell food. See also the description of the tags <code>amenity=pub;bar;restaurant</code> for a distinction between these.		
amenity	bbq		BBQ or Barbecue is a permanently built grill for cooking food, which is most typically used outdoors by the public. For example these may be found in city parks or at beaches. Use the tag <code>fuel=*</code> to specify the source of heating, such as <code>fuel=wood;electric;charcoal</code> . For mapping nearby table and chairs, see also the tag <code>tourism=picnic_site</code> . For mapping campfires and firepits , instead use the tag <code>leisure=firepit</code> .		
amenity	biergarten		Biergarten or beer garden is an open-air area where alcoholic beverages along with food is prepared and served. See also the description of the tags <code>amenity=pub;bar;restaurant</code> . A biergarten can commonly be found attached to a beer hall, pub, bar, or restaurant. In this case, you can use <code>biergarten=yes</code> additional to <code>amenity=pub;bar;restaurant</code> .		
amenity	cafe		Cafe is generally an informal place that offers casual meals and beverages, typically, the focus is on coffee or tea. Also known as a coffeehouse/shop, bistro or sidewalk cafe . The kind of food served may be mapped with the tags <code>cuisine=*</code> and <code>diet=*</code> . See also the tags <code>amenity=restaurant;bar;fast_food</code> .		
amenity	drinking_water		Drinking water is a place where humans can obtain potable water for consumption. Typically, the water is used for only drinking. Also known as a drinking fountain or water tap .		

Figure 2:

http://wiki.openstreetmap.org/wiki/DE:Map_Features

Overpass Turbo

overpass turbo

Ausführen Teilen Export Wizard Speichern Laden Einstellungen Hilfe

Karte Daten

```
1 <!--
2 This has been generated by the overpass-turbo wizard.
3 The original search was:
4 "Trinkbrunnen"
5 -->
6 <osm-script output="json" timeout="25">
7   <!-- gather results -->
8   <union>
9     <!-- query part for: "Trinkbrunnen" -->
10    <query type="node">
11      <has-kv k="amenity" v="drinking_water"/>
12      <bbox-query {{bbox}}/>
13    </query>
14  </union>
15  <!-- print results -->
16  <print mode="body"/>
17  <recurse type="down"/>
18  <print mode="skeleton" order="quadtile"/>
19 </osm-script>
20
21 {{style:
22   node[amenity=drinking_water] {
23     icon-image: url("icons/maki/water-24.png");
24     icon-width: 24;
25   }
26 }}
```

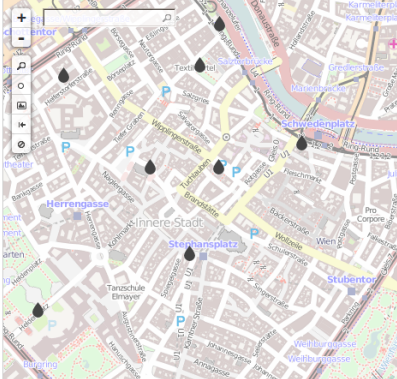
The screenshot shows the Overpass Turbo web interface. On the left, a code editor displays an Overpass Turbo query generated by the wizard for searching for drinking water fountains. The query uses the OSM API to find nodes with the amenity 'drinking_water' within a specific bounding box. The results are styled using CSS to display a water fountain icon. On the right, a map of Vienna is shown with several black water fountain icons placed at the locations of the found nodes. The map includes street names like Herrengasse, Stephansplatz, and Schwedenplatz. The interface also features navigation controls and tabs for 'Karte' (Map) and 'Daten' (Data).

Figure 3: <https://overpass-turbo.eu/>

Query Overpass

```
node
  [amenity=bar]
  ({{bbox}});
out;
```

Download von OpenStreetMap Daten

- <https://mapzen.com/> - Ausschnitte von OpenStreetMap für einzelne Städte (metro extracts)
- Über Geofabrik lassen sich aktuelle Ausschnitte (auch Shapefiles) herunterladen (<http://download.geofabrik.de/>)
- Kartendaten (openaprs)

Bei großen Datenmengen

- Hier geht es nur um das Herunterladen kleiner Ausschnitte.
- Wenn größere Datenmengen benötigt werden, sollte man eine Datenbanklösung finden.
- PostgreSQL hat den Vorteil, dass es Open-Source ist.
- Download PostgreSQL
- Hier ist eine Einführung in PostgreSQL zu finden
- Sehr empfehlenswert: Arbeiten mit pgAdmin III
- Beispiel: um Verknüpfung zu einer Datenbank herzustellen - Doppelklick auf den Server in pgAdmin III

- Installieren der PostGIS Erweiterung:

```
CREATE EXTENSION postgis;
```

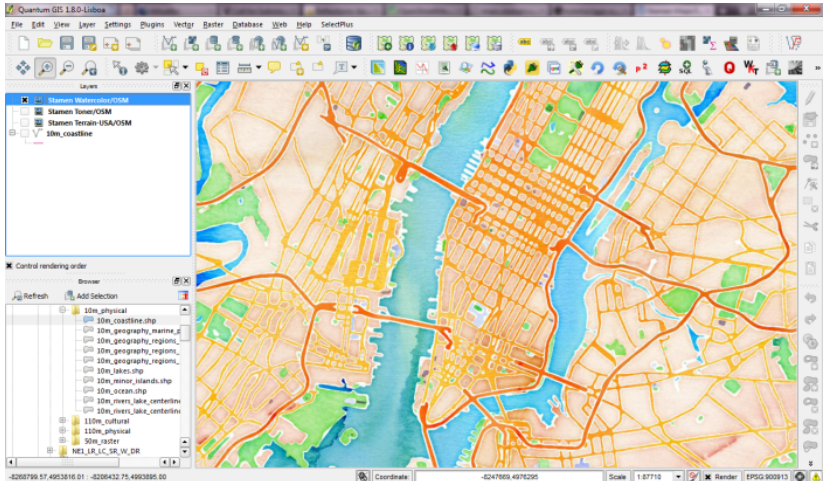
Programm zum Import der OSM Daten in PostgreSQL- osm2pgsql

- Läuft unter Linux deutlich besser
- so könnte bspw. ein Import in PostgreSQL aussehen:

```
osm2pgsql -c -d osmBerlin --slim -C -k berlin-latest.osm
```

Nutze bspw. QGIS um Shapefiles zu extrahieren

- Plugin OpenLayers



- Wiki zum Downlaod von Openstreetmap Daten
- Openstreetmap Blog
- Liste möglicher Datenquellen für räumliche Analysen (weltweit und in Deutschland)
- SALB - Administrative Grenzen

<http://wiki.openstreetmap.org/wiki/SALB>