



OpenStreetMap

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What is OSM?

- “Collaborative project to create a free editable map of the world”
- Open Data -> used as base for other applications
- Create your own layers on top
- <https://openstreetmap.org>

How does it work?

- Stored in psql + PostGIS
- Essentially a giant XML file
 - <https://wiki.openstreetmap.org/wiki/Planet.osm>
- No strict data format
 - https://wiki.openstreetmap.org/wiki/Indoor_Mapping#Tagging
 - OSM Editor

Navigation/Routing

- <http://maps.openrouteservice.org/>
- <https://cycle.travel/map>
-

Cycling & Hiking

- <http://hikebikemap.org/>
- <https://opentopomap.org/#map=12/37.2147/-80.4470>
-

Android/IOS

- <http://osmand.net/>
- <http://www.locusmap.eu/>
-

Printing

- <https://maposmatic.osm-baustelle.de/>
-

Other interesting maps

- <https://caltopo.com/map.html>
- <http://www.hillmap.com/>
- <http://mapper.acme.com/>
- <http://tools.geofabrik.de>
- <http://demo.f4map.com/>
- <https://wheelmap.org/>
- See reddit.com/r/openstreetmap for more

A few use cases

- Want to find good place to live within an hour of biking from work
- Want to display a special map layer
- Want to have some small feature that's significant enough for other maps to care
- Don't want to support google/m\$
- Want to see detailed terrain info for a trail
- Want to see indoor levels

How do I edit?



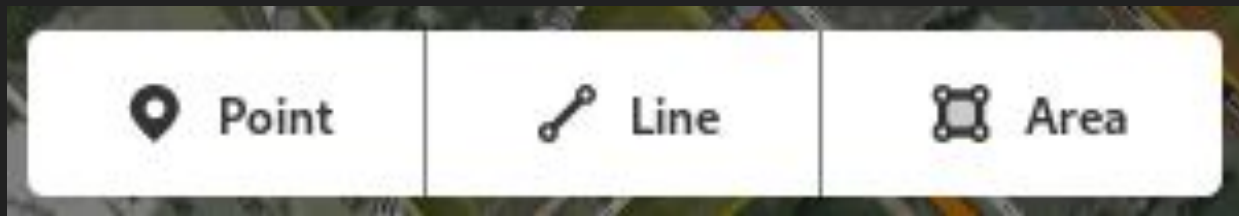
Drawing things

- Minimum data

- Nodes
- Segments
- Areas
- Tags

- History

- <https://www.openstreetmap.org/history#map=14/37.2251/-80.4288>



▼ All tags (3)

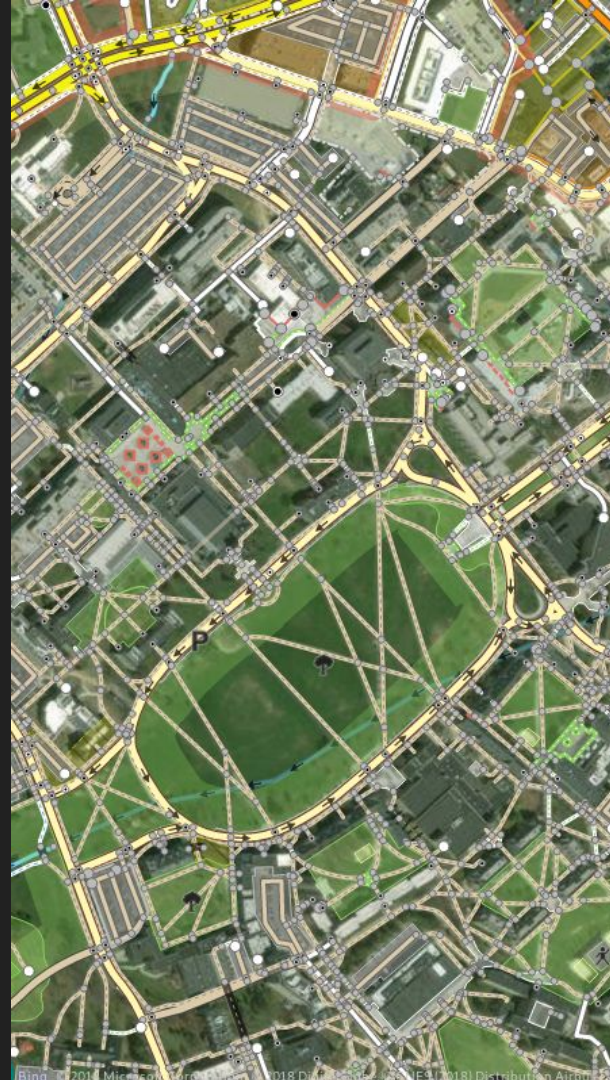
name	▼	Duck Pond	▼	🗑️	i
natural	▼	water	▼	🗑️	i
type	▼	multipolygon	▼	🗑️	i
+					

How do I edit?

- GPX + satellite
- <https://linx.li/osmexample.gpx>
- <https://www.openstreetmap.org/login>

Lots of data

<input checked="" type="radio"/> Bing aerial imagery
<input type="radio"/> DigitalGlobe Premium Imagery
<input type="radio"/> DigitalGlobe Standard Imagery
<input type="radio"/> Esri World Imagery
<input type="radio"/> Esri World Imagery (Clarity) Beta
<input type="radio"/> Mapbox Satellite
<input type="radio"/> OpenStreetMap (Standard)
<input type="radio"/> Stamen Terrain
<input type="radio"/> Virginia Imagery Service - Most Recent, WGS We...
<input type="radio"/> USGS Large Scale Imagery
<input type="radio"/> U.S. Forest Service roads
<input type="radio"/> USGS Topographic Maps
<input type="radio"/> None
<input type="radio"/> Custom ...



Map Data

▼ Data Layers

OpenStreetMap data

OpenStreetMap notes

Photo Overlay (Bing Streetside)

Photo Overlay (Mapillary)

Traffic Sign Overlay (Mapillary)

Photo Overlay (OpenStreetCam)

Custom Map Data



> Fill Areas

▼ Map Features

Points

Traffic Roads

Service Roads

Paths

Buildings

Landuse Features

Boundaries

Water Features

Rail Features

Power Features

Past/Future

Others

OSM Tags

https://wiki.openstreetmap.org/wiki/Map_Features#Primary_features

Improving VT on OSM

- Old VTLUUG project: <https://github.com/vtluug/campusmap>
- New idea: add building levels for campus buildings
- https://wiki.openstreetmap.org/wiki/Simple_Indoor_Tagging
- <https://vtluug.org/files/2017/vtbuildings/>
-

Indoor tagging

- Not supported in official OSM
 - <https://openlevelup.net/>
 - <https://openlevelup.net/?l=0#19/50.77934/6.07458>
 - Editing: <http://projets.pavie.info/id-indoor/>
-

Hacktoberfest

<https://hacktoberfest.digitalocean.com/>



Hacktoberfest Ideas

- OSM day
- Infra day
- ???