

OpenStreetMap

What is that and how can I contribute?

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1 What is this?

- Motivation
- History
- Statistics
- Community

2 The data

- Node
- Way
- Relation
- Area
- Multipolygon

3 Contributing to OSM

- Trace aerial imagery
- Go outside
- Report errors
- Socialize

- free¹ project collecting **free accessible** geodata
- open database for geodata
- ODC-ODbL
 - ▶ OpenDataCommons Open Database License
 - ▶ Ersetzt CC BY-SA 2.0 (share alike & attribution)

¹free as in freedom

Motivation

Why has OpenStreetMap been created?

- proprietary maps old and faulty
- focus on cars and traffic
- no access to raw data
 - ▶ error correction not possible
- Google Maps *not directly evil* – but **not free**
- license problems with (nearly) all map service providers

History

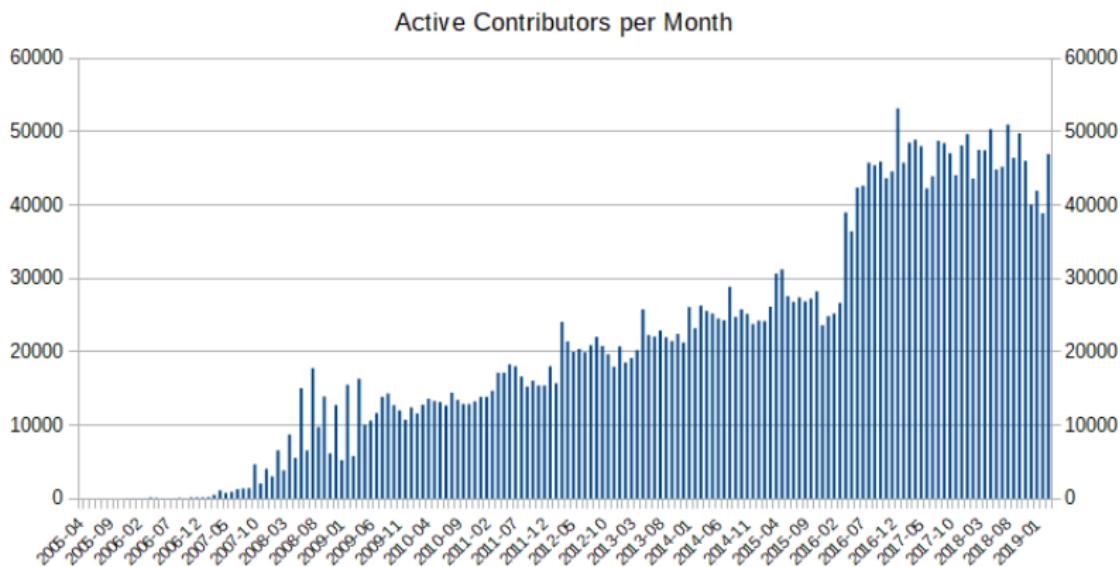
- 2004 – OSM founded
- 2006 – release JOSM-Editor
- 2006 – first map rendered with Mapnik
- 2007 – TIGER data import USA started
- 2008 – TIGER data import USA finished
- 2009 – API 0.6 (still latest version)
- 2009 – cooperation with Wikipedia
- 2010 – Bing Imagery allowed usage for OSM
- 2013 – 1 mio. registered users
- 2016 – Maps.me app enabled edits

Statistics



https://wiki.openstreetmap.org/wiki/File:Osmdbstats1_users.png, 2019-05-25

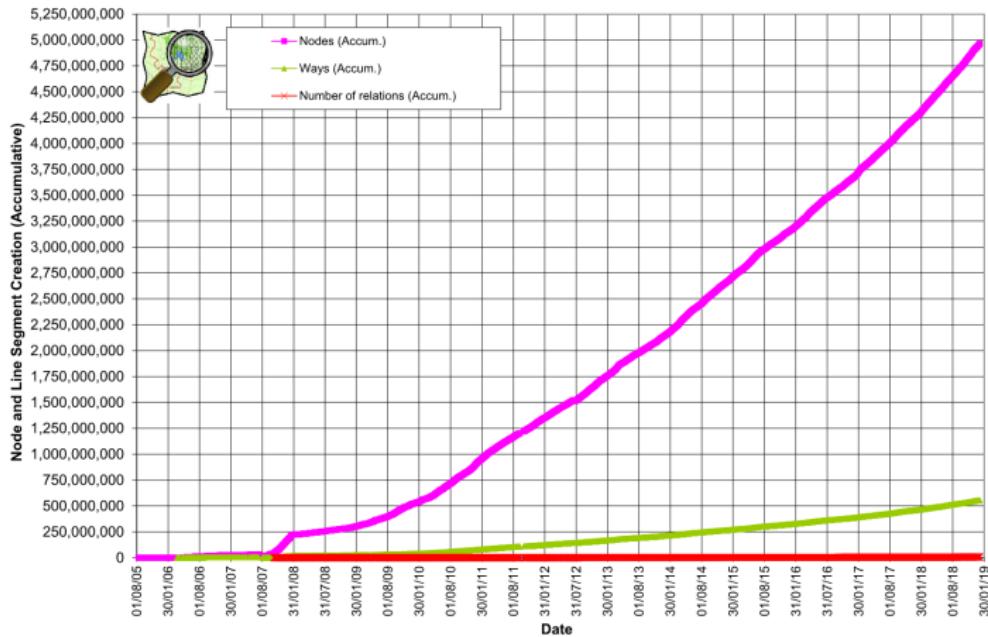
Statistics



https://wiki.openstreetmap.org/wiki/File:Active_contributors_month.png, 2019-05-25

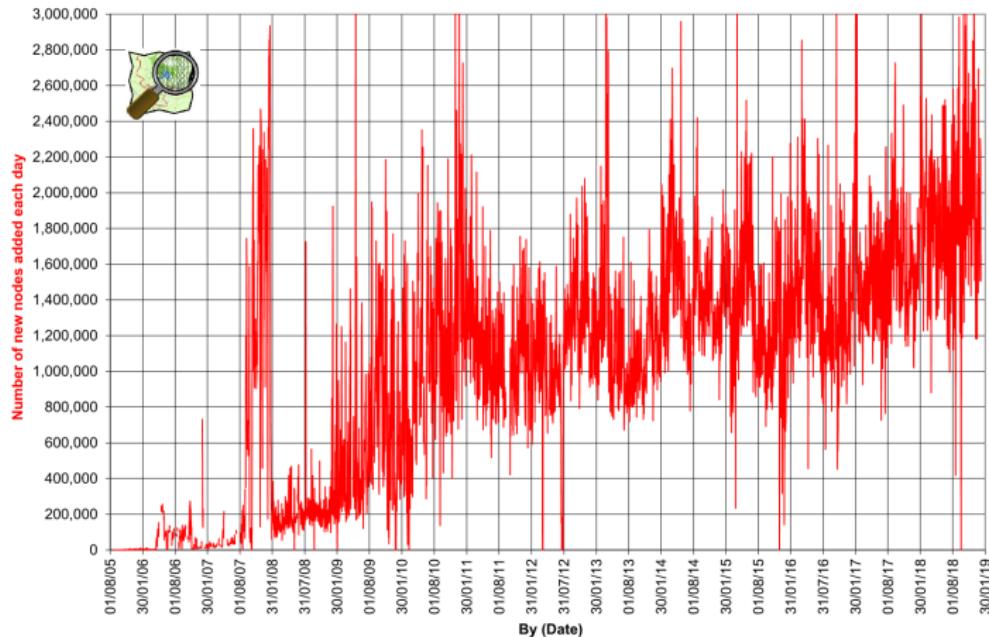
Statistics

OpenStreetMap Database Statistics
Node, Way and Relation Creation



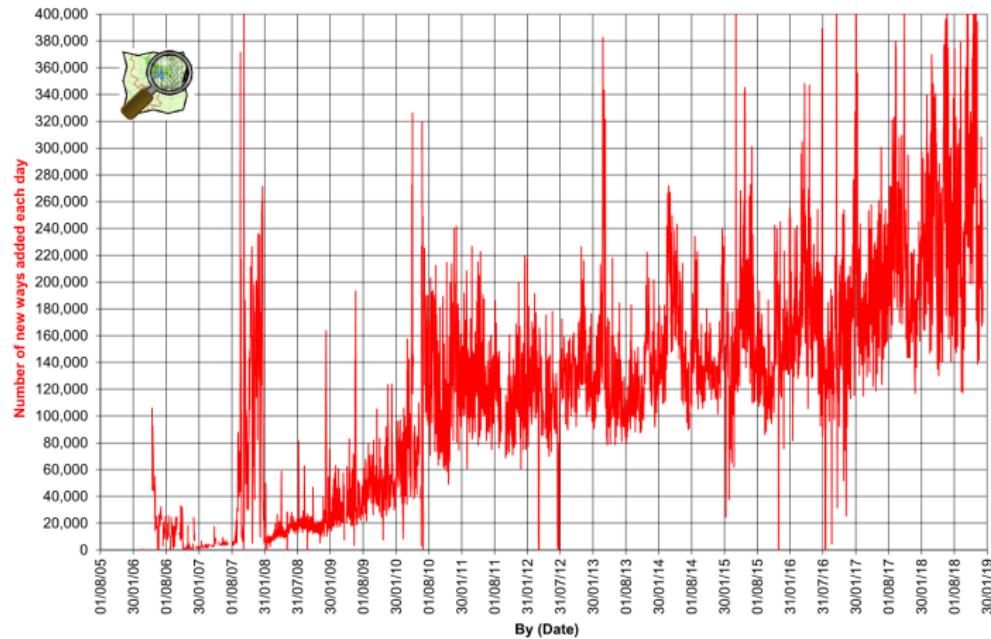
Statistics

OpenStreetMap Database Statistics
Number of nodes added each day



Statistics

OpenStreetMap Database Statistics
Number of ways added each day



Community

What is done?

- developing software and tools
- actual mapping
- creating and maintaining documentation
- doing public relations activities

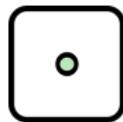
Community

How is it done?

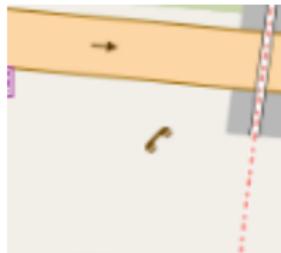
- going outside collecting information
- using imagery services
- meet other mappers
- participating in a mapathon

Node

- single location on map



amenity=telephone
covered=booth



(1) https://wiki.openstreetmap.org/wiki/File:Red_telephone_box_-_geograph.org.uk_-_919348.jpg,

2019-05-25

Way

- line on map
- 2-2000 points per way



highway=secondary

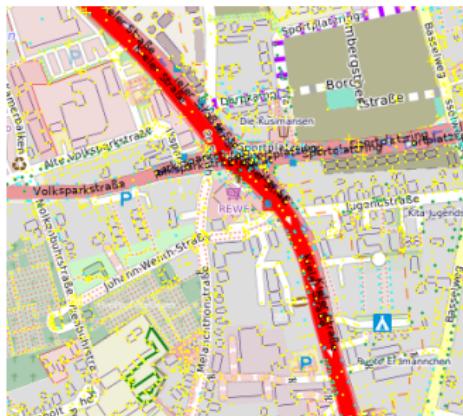


(1)

(1) <https://wiki.openstreetmap.org/wiki/File:Meyenburg-L134.jpg>, 2019-05-25

Relation

- combination of ways (e.g. to a bus route)



`type=route
route=bus
name=MetroBus 4
ref=4
from=Wildacker
to=Brandstwiete`

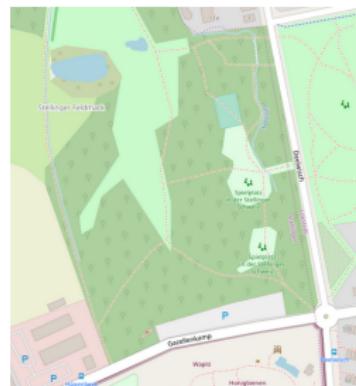
Area

- basically a closed way



(1)

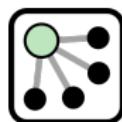
landuse=forest
leaf_type=broadleaved



(1) https://commons.wikimedia.org/wiki/File:Stellinger_Feldmark_ESE_01.JPG, 2019-05-25

Multipolygon

- basically a polygon with polygons inside
- role inner and outer



(1)

landuse=farmland

Schlüssel	Wert
landuse	farmland

Element von: multipolygon ("Staatsforst Rosen...")
Rolle: Inner
Position: 14

Hinzufügen Bearbeiten Entfernen

(2)

(1) Microsoft©BingTM Maps Platform; (2) Microsoft©BingTM Maps Platform inside JOSM editor

What is this?
oooooooooooo

The data
oooooo

Contributing to OSM
●oooooooo

Trace aerial imagery



(1) Microsoft©BingTM Maps Platform from JOSM editor

What is this?
○○○○○○○○○○

The data
○○○○○

Contributing to OSM
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Go outside

Surveying



(1)

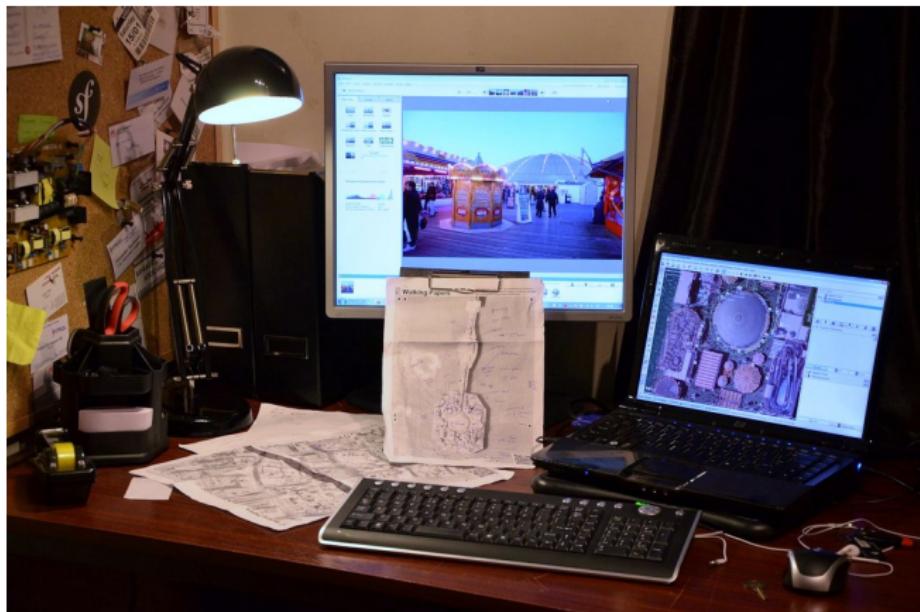
What is this?
○○○○○○○○○○

The data
○○○○○

Contributing to OSM
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Go outside

Mapping



(1)

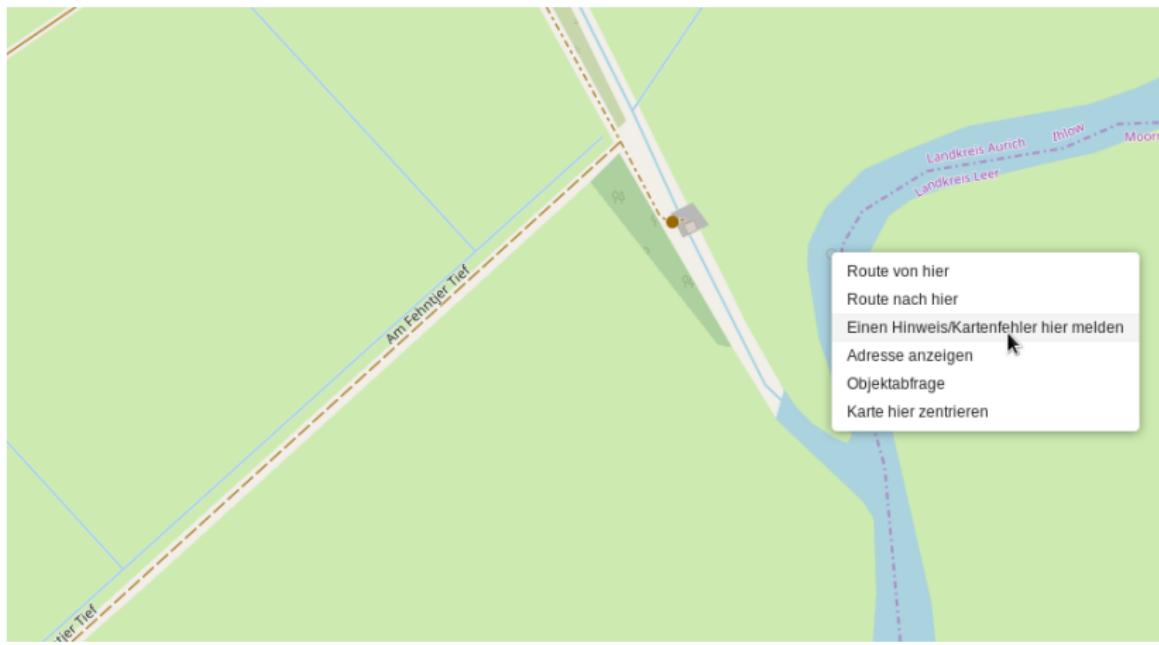
(1) https://en.wikipedia.org/wiki/File:Adding_data_to_OSM_after_mapping_Brighton_Pier.jpg ↗
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OpenStreetMap



20 / 25

Report errors



Report errors

Unerledigter Kartenfehler Nr. 1610297 ×

Beschreibung

Pumpwerk im fahrwasser?

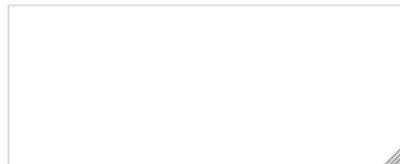
Erstellt von Anonym vor 6 Monate

Dieser Hinweis enthält Kommentare von anonymen Benutzern, die unabhängig geprüft werden sollten.

Diesen Hinweis melden

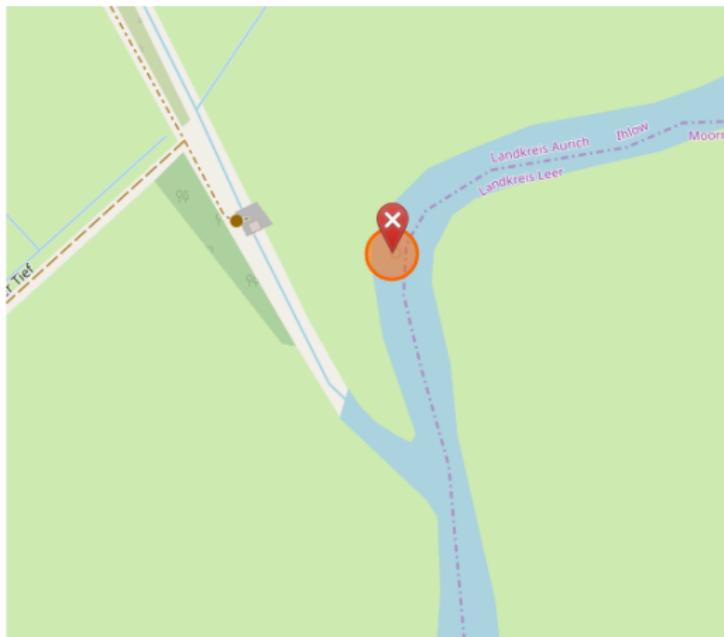
Kommentar von hauke-stieler vor 11 Tage

Kommt mir auch seltsam vor. Für mich sieht das nach Fehler aus und kann meinewegen gelöscht werden. Vielleicht war das eigentliche Pumpwerk daneben gemeint?



Erledigt

Kommentar



Report errors



Report errors

Unerledigter Kartenfehler Nr. 1770846 ×

Beschreibung

Diese Schule hat den Standort gewechselt, dieses Gebäude gehört zum Friedrich-Ebert Gymnasium

Erstellt von Anonym vor 17 Tage

Dieser Hinweis enthält Kommentare von anonymen Benutzern, die unabhängig geprüft werden sollten.

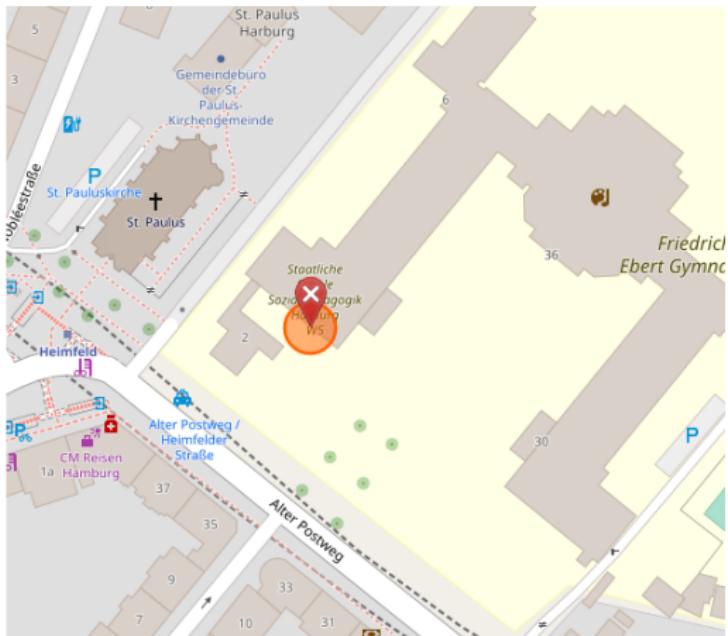
[Diesen Hinweis melden](#)

Kommentar von [ma-rt-in](#) vor 4 Tage

Weißt du auch wohin die sind?

[Erledigt](#)

[Kommentar](#)



Socialize



(1)

(1) https://wiki.openstreetmap.org/wiki/File:20110407_osm_stammtisch_hl.jpg, 2019-05-25