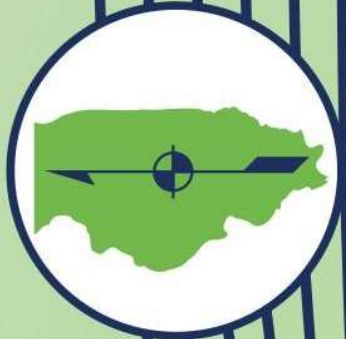


Uncharted & Unbothered: Bringing Invisible Towns Into Focus

An Introduction to Mapping In OpenStreetMap

Presented by: Sarai Hernandez, Katie Niermann, Meagan Briganti



Please sign up!!



Go ahead, do it!!

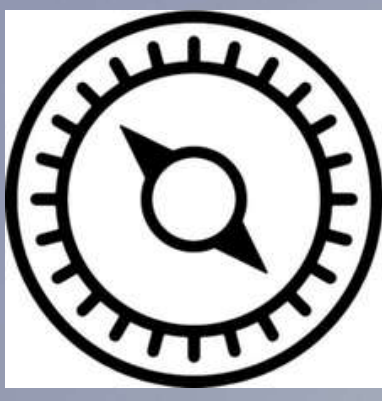
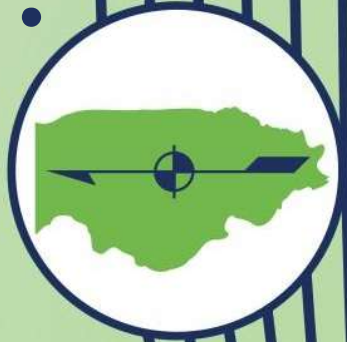
<https://www.openstreetmap.org>



You won't regret!!

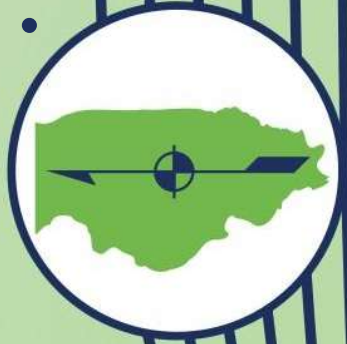
What is OpenStreetMap?

- Founded in 2004 by Steve Coast (UK)
- Open source, collaborative, accessible, relatively easy to use & navigate
- Community of over 10.5 million registered users worldwide
- ~50,000 active contributors each month
- Current user stats



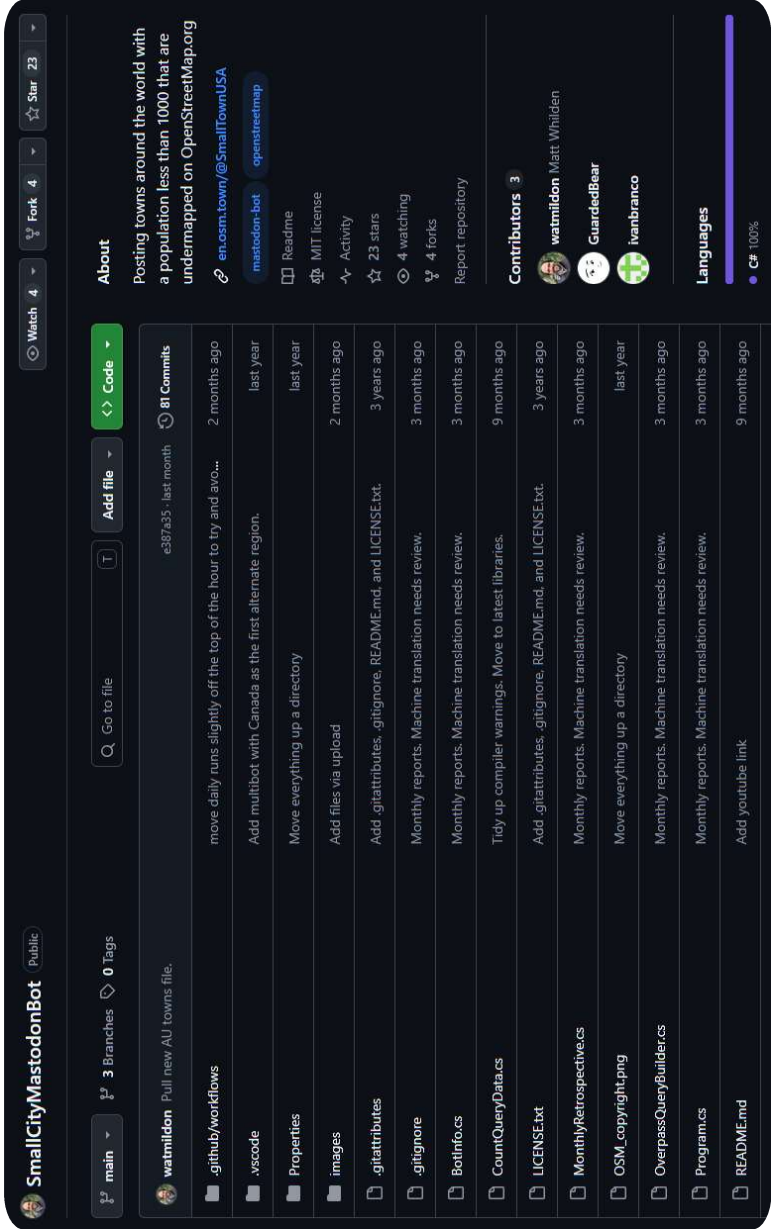
Why contribute to OpenStreetMap?

- Help build a free, open-source global map that belongs to everyone
- Help communities and humanitarian groups around the globe plan and navigate during times of crisis
- Connect with a cool, supportive, and innovative community
- Aid in improving **ALL** mapping platforms (ESRI, Bing, Google Maps, Apple Maps, etc.)
- Save yourself some data/cloud space
- No need to rely on any corporations to maintain or improve upon their services/software
- Never need to limit yourself due to any paywalls
- Let's be real, we're all nerds! It'll be fun!



The Inspiration

- Shout out to Matt Whilden (Wonderful OSM US Board Member!)
- The #UnmappedSmallTownUSA Project
 - <https://en.osm.town/@SmallTownUSA>
 - <https://github.com/watmildon/SmallCityMastodonBot>



Many Methods for Achieving the Same Goal

← → ↻ overpass-turbo.eu

Run

Share

Export

Wizard

Style

```
1 /*
2 This has been generated by the overpass-turbo-wizard
3 The original search was:
4 "place=* and population=3000"
5 */
6 [out:json][timeout:25];
7 // gather results
8 nwr["place"]["population"](<[{{bbox}}]);
9 // print results
10 out geom;
11
12
13
14 /*
15 [out:json][timeout:60];
16 {{geocodeArea:"Illinois"}}->a;
17 (
18   node["population"]["place"](if:(t["population"]<"100
19 ));
20 out body;
21 >;
22 */
23
24 /*
25 [out:json][timeout:25];(nwr(around:{radiusInMeters}.
26 count;
27 */
```

Query History

Search

Yesterday

select
name, population, st_buffer(geom, 0.002) as geom
from gis_osm_places_free
where population < 3000 AND population != 0
Connection: C:/Users/KNiermann/Downloads/illinois.gpkg
Row count: -1
Execution time: 0 ms

select
name, population, st_buffer(geom, 0.2) as geom
from gis_osm_places_free
where population < 3000 AND population != 0
Connection: C:/Users/KNiermann/Downloads/illinois.gpkg
Row count: -1
Execution time: 0 ms

select
name, population, st_buffer(geom, 3000) as geom
from gis_osm_places_free
where population < 3000 AND population != 0
Connection: C:/Users/KNiermann/Downloads/illinois.gpkg
Row count: -1
Execution time: 0 ms

buildings

Out

In

Out

Buffer

Out

bufferedowns

Out

Join attributes by location
(sum mary)

Out

test

Out

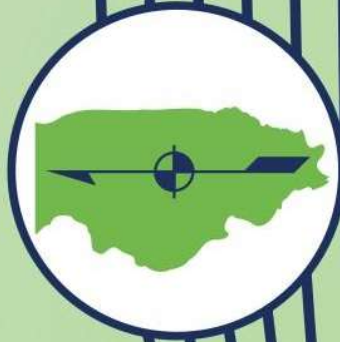
DuckDB

```
import duckdb
duckdb.sql("load osmium;")
duckdb.sql("load spatial;")
```

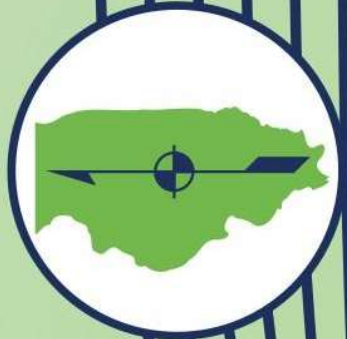
```
towns = duckdb.sql("""
select
    tags['name'] as name,
    tags['population'] as
population,
    st_buffer(geometry, 0.01)
as geometry,
    geometry as orig_geometry
from 'IL.osm.pbf'
where kind = 'node'
and tags['place'] is not null
and
try_cast(tags['population'] as
int) < 3000
and tags['population'] is not
null
""")
```

```
buildings =
duckdb.sql("""
select
    id, geometry
from 'IL.osm.pbf'
where
tags['building'] is
not null
""")
```

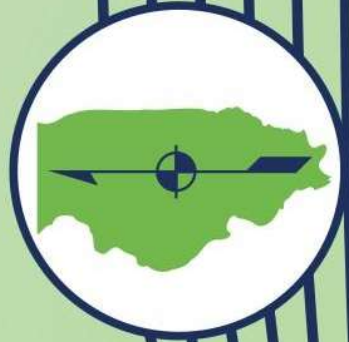
```
duckdb.sql("""
COPY (select
    t.name,
    t.population,
    t.orig_geometry as
geometry,
    count(b.id) as
building_count
from towns t
join buildings b on
st_intersects(t.geometry,
b.geometry)
group by t.name,
t.population, t.orig_geometry
having count(b.id) <= 10
) TO 'smalltowns2.geojson'
WITH (FORMAT GDAL, DRIVER
GeoJSON);
""")
```



Time to Map!



Tutorial: [Relation: Godley
\(123490\)](#) |
[OpenStreetMap](#)



OSM Beginners Guide



OSM Tags Wiki

Approachable Beginner Tags in OSM:

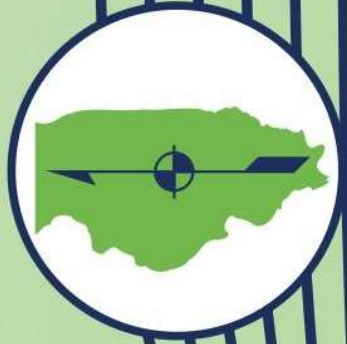
Tagging buildings: **building=house** or **building=yes**

Tagging pathways: **highway=footway**

Tagging sidewalks: **highway=footway** & **footway=sidewalk**

Tagging driveways: **highway=service** & **service=driveway**

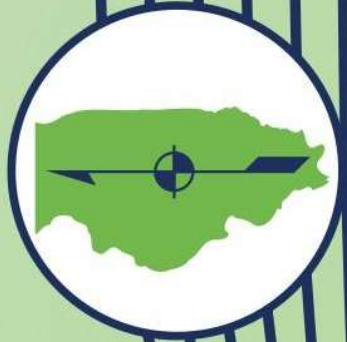
Keyboard shortcuts: 'Q' to square the features of a way (polygon), 'M' to move selected features, 'R' to rotate selected features, 'S' to straighten a line segment



Thank you for your participation.



Happy mapping!



Extra Resources to Check Out



https://wiki.openstreetmap.org/wiki/About_OpenStreetMap

https://wiki.openstreetmap.org/wiki/Working_groups

<https://wiki.openstreetmap.org>

https://wiki.openstreetmap.org/wiki/Beginners%27_guide

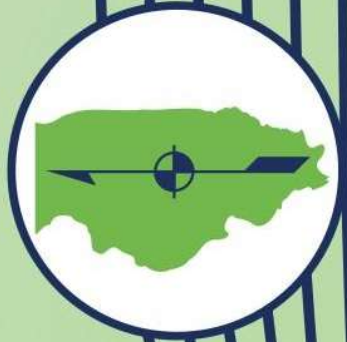
[OpenStreetMap Taginfo](#)

<https://openstreetmap.us/news/newsletter/>

<https://openstreetmap.us/events/state-of-the-map-us/2026/>

<https://wiki.openstreetmap.org/wiki/JOSM>

<https://slack.openstreetmap.us/>



Please feel free to contact us at: KCGIS@kendallcountyl.gov