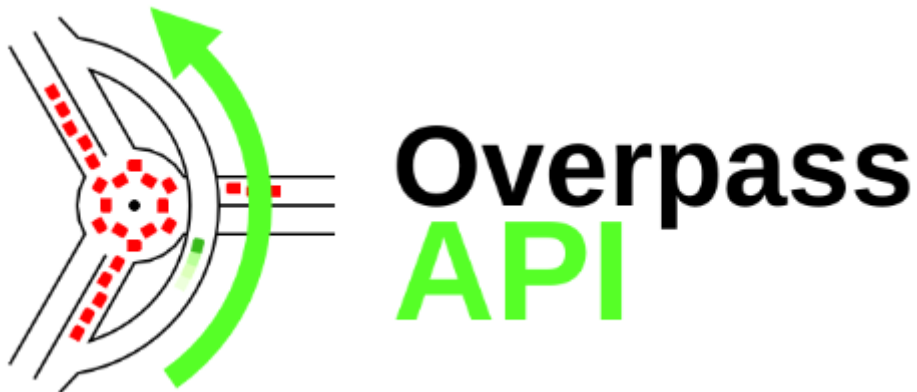


Download Building Footprint Vector Data Using Overpass API



Tutorial-1



Rahul Gawai

System Analyst (GIS) Spatial Data Division

Email: rahul.unipunegis@gmail.com

mobile: + 971 50 98 93 401

DPM, - Abu Dhabi, UAE

INDRODUCTION:

Overpass turbo overpass-turbo.eu is a web based data mining tool for OpenStreetMap. It runs any kind of [Overpass API query](#) and shows the results on an interactive map. This project is maintained by Martin Raifer. The source code is found on GitHub.

For the mapper

The Overpass API can be a great tool for mapping, as it is very powerful at *filtering* OSM data. With overpass turbo, there is an easy way to quickly run any Overpass query and inspect the results in a user friendly manner. Here are some ideas where using *overpass turbo* can be a handy tool while mapping:

- Searching for (rare) spelling mistakes or breaks with naming conventions over a large area.
- Looking for special POIs which are not drawn on the map.
- Inspecting POIs (e.g. place nodes) which are distributed evenly over large areas.
- Showing spatially large features (boundaries, rivers, complete motorways, PT-networks,) and loading them directly into an editor.
- When you only need a filtered portion of OSM data.

For the developer

Overpass turbo can be a tool for developers, too:

- Testing and developing more or less complicated Overpass API queries.
- Converting OSM data to the GeoJSON data format.
- Creation of mock-ups of clickable or static maps highlighting selected OSM features.

Running queries

Put your Overpass API query (see [Language Guide](#)) into the editor, hit the *Run* button, and get amazed by the goodness of the OSM data displayed ;)

overpass turbo displays as much data as possible (see map key below). When clicking on an object, a popup shows all the information of the selected node, way or relation: type and id, tags, coordinates, relationship memberships and meta data are shown, if available.


Please note that you need a somewhat recent web browser for using overpass turbo. Opera, Chrome and Firefox have been tested and work.

Query wizard

There is a *Query Wizard* that assists one with the writing of Overpass queries. It is designed to transform simple, human-readable search terms into functional Overpass queries. Here is an example: To get restaurants, now all you have to do is fire up the Wizard and enter [Restaurant](#). Alternatively, one can also type in the appropriate tag `amenity=restaurant`.

Read more about the Query Wizard on its own subpage.

Data

- **As GeoJSON**
OSM data after converted to  GeoJSON. Read more.
- **As GPX**
Useful for uploading waypoints to a GPS device.
- **Raw data**
the raw OSM data (in XML or JSON).
- **Raw data from Overpass API interpreter**
a direct link to the result of the query returned by the Overpass-API interpreter.
- **Load into JOSM**
Instructs JOSM (or any other editor supporting the Remote Control protocol) to load the result of the current query. Note that this only works for queries returning valid OSM-XML with Meta data.
- **Save as gist**
publishes the data directly as a Gist (the pastebin service by GitHub that loves maps). Provides a link to edit an OSM dataset with geojson.io, the online GeoJSON editor.

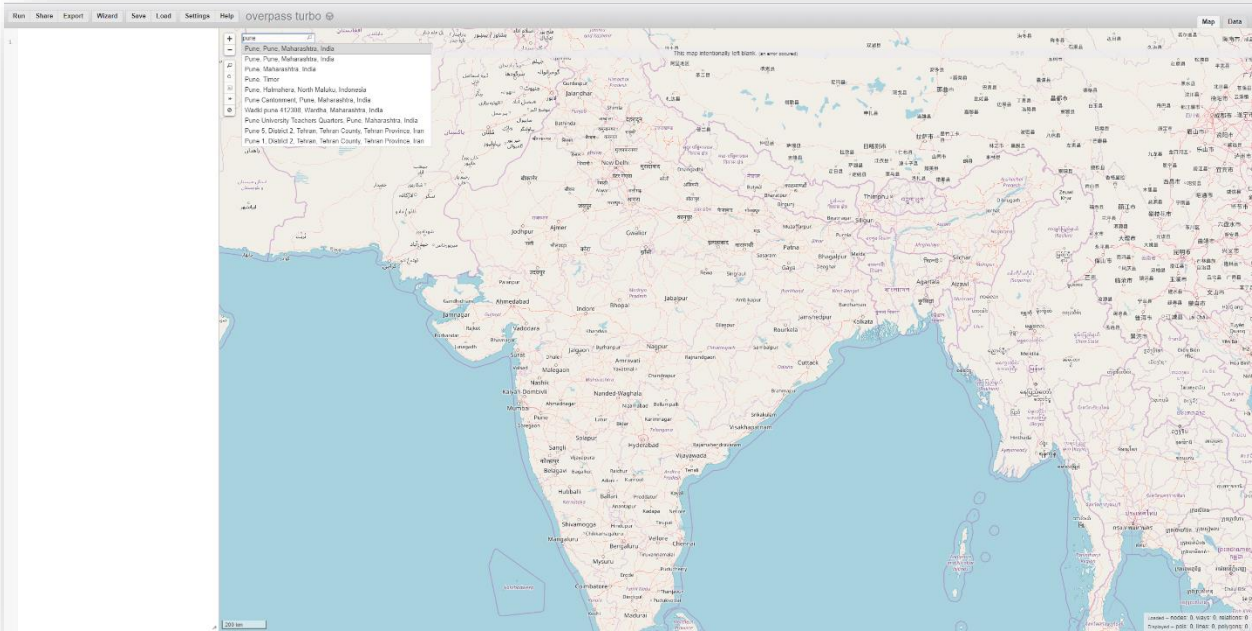
Map

- **As PNG image**
the current map including the displayed data as a PNG image. By default, the exported PNG includes a scale and an OSM attribution string.
- **As interactive Map**
a full screen, clickable map showing the results of the current query. POIs and Ways are clickable, just like in *overpass turbo* itself.
- **Get current map state**
Prints bbox, center and zoom information of the current map view.

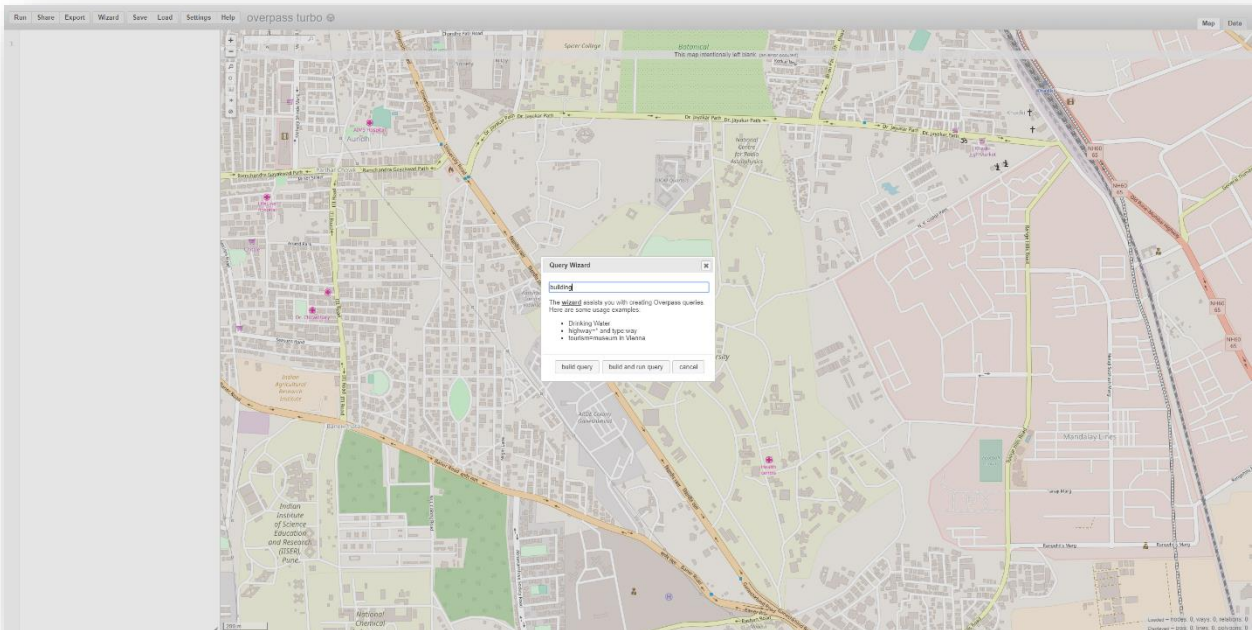
Query

- **as text**
The current query as a text file
- **Convert to xml**
the current query converted to an OverpassXML-formatted query.
- **Convert to (compact) Overpass SQL**
the current query converted to a (compact) Overpass SQL query.

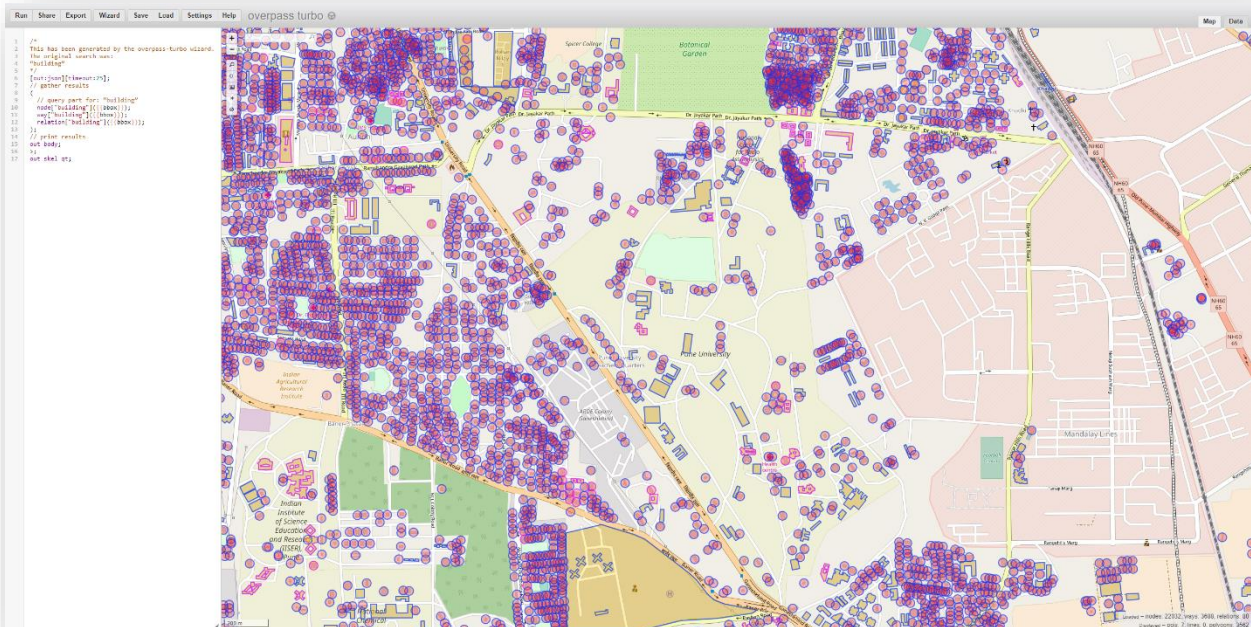
- 1) Enter the **web link** in the browser <http://overpass-turbo.eu/>.
- 2) Search for location to download data in the **search box** .ex. Pune.



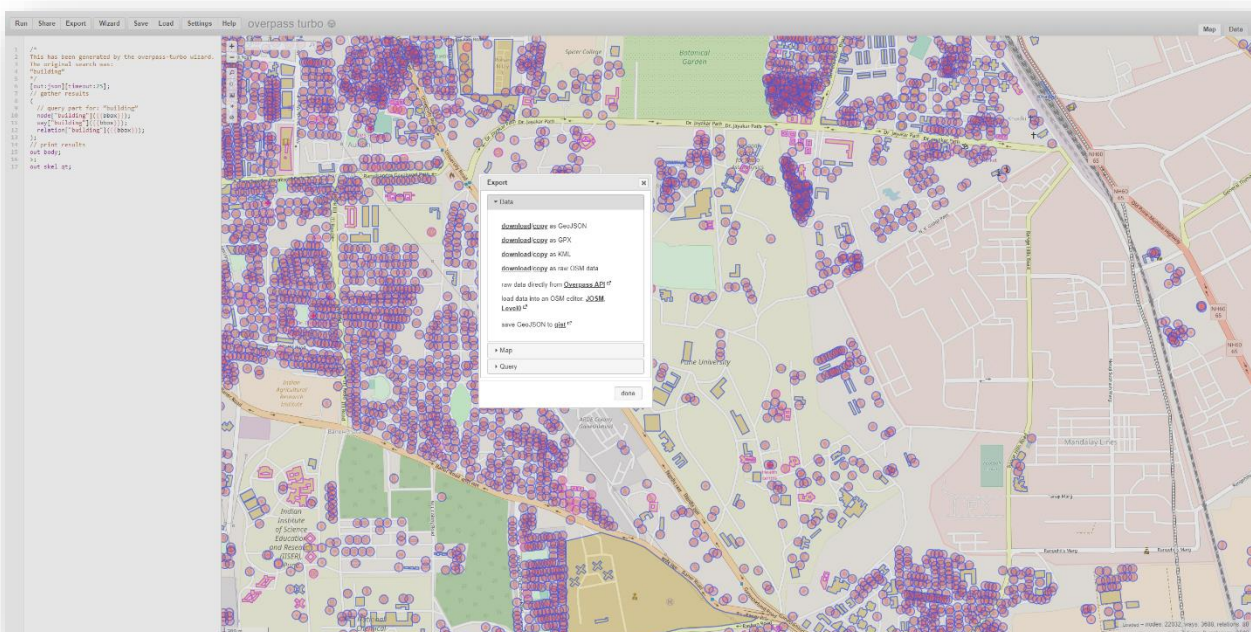
- 3) Click on **wizard** tab to open Query wizard window.
- 4) Enter the name in text box. ex. **Building**.
- 5) Click on **build and run query**.



Now you will get the following result on the map.

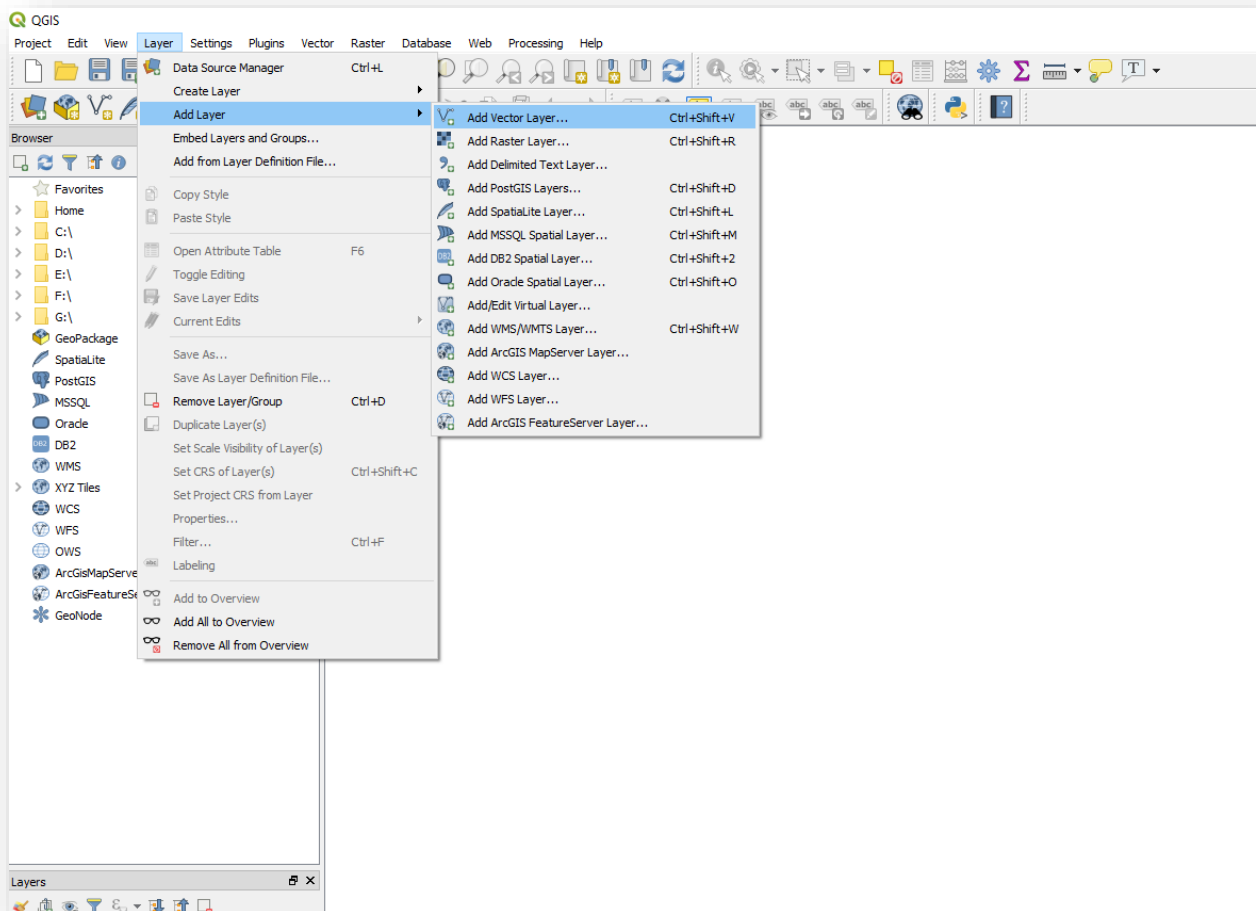


- 6) Click on **export** tab in the **main menu**, Export window will open to export your building data.
- 7) Click on **Data** tab in **export window**, you can download data in various formats like KML, GPX, and **GeoJSON** but most popular format is GeoJSON format.
- 8) Click on **done** button, after click your building data will download in GeoJSON format.



Now open **Q-GIS** to viewing downloaded building data.

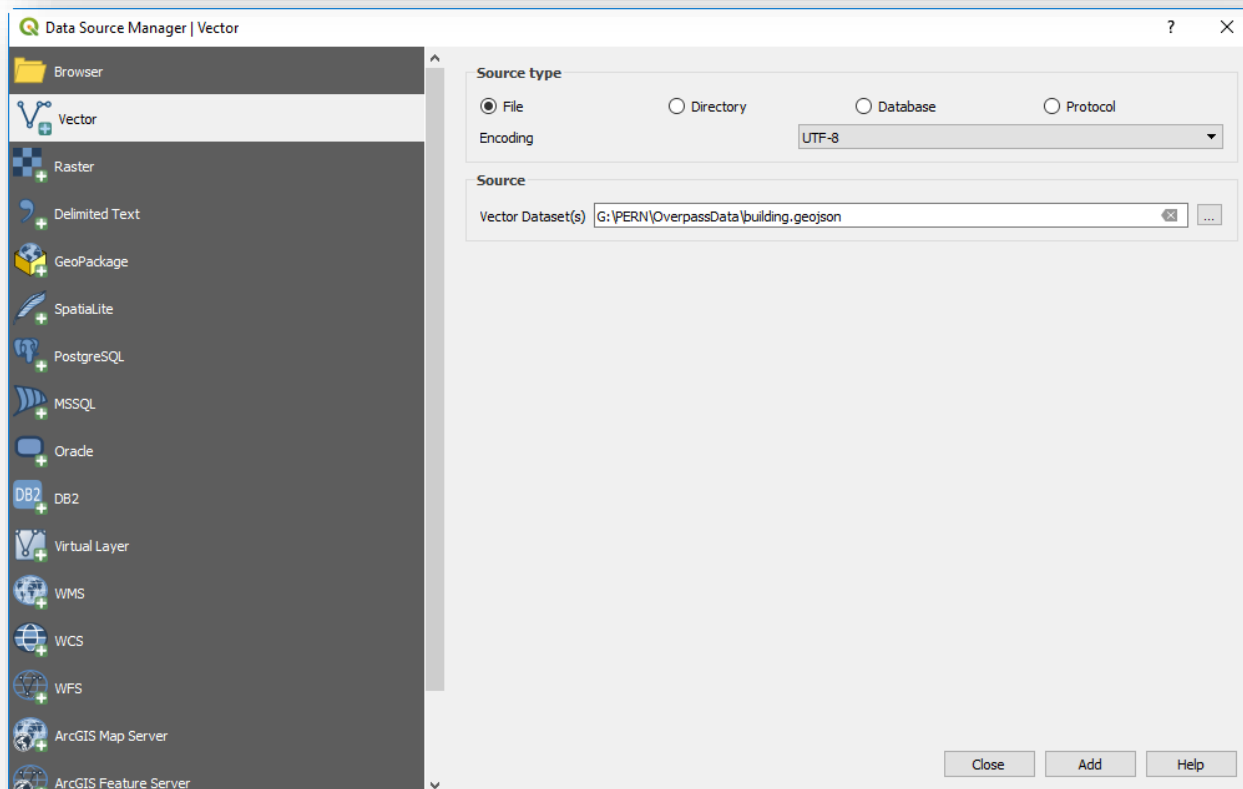
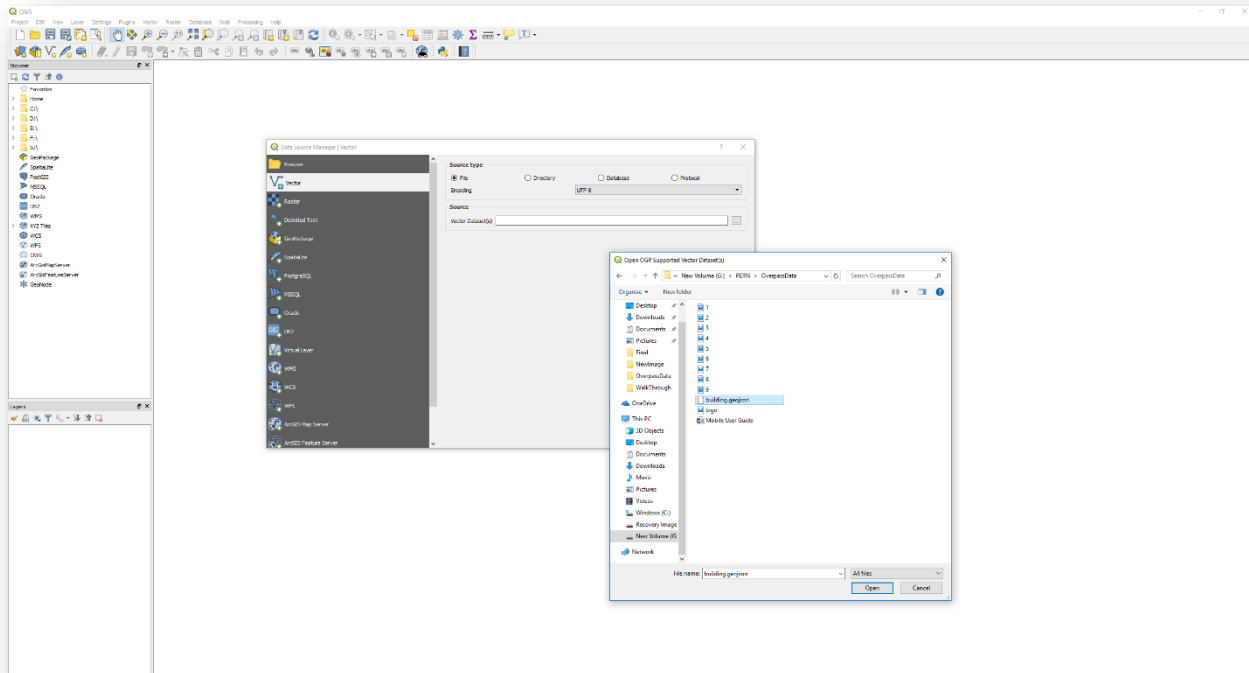
- 9) Click on **layer** tab in the **main menu**.
- 10) Click on **Add layer** under the **layers**.
- 11) Click on **Add vector data**.



New **Data Source Manager Vector** window will open.

12) In the **Data Source Manager Vector** under the **source**-vector datasets browse the downloaded building **GeoJSON** file click on **open** button.

13) After browse file click on **add** button.



After adding building **GeoJSON** it will appear in map view. After that you can **convert** into any vector file format. Like **ESRI shapefile**.

