

Using JOSM to Extract and Save Specific OpenStreetMap Data into a GIS format

Overview

This tutorial explains how to download specific data from OpenStreetMap and convert it into a GIS format using the Java OpenStreetMap Editor (JOSM). The Overpass API in JOSM is used to formulate a simple query to download footprints and attributes of buildings. The downloaded data is stored in the GeoJSON file format, which can be imported by common mapping tools and GIS software, for example QGIS.

Contents

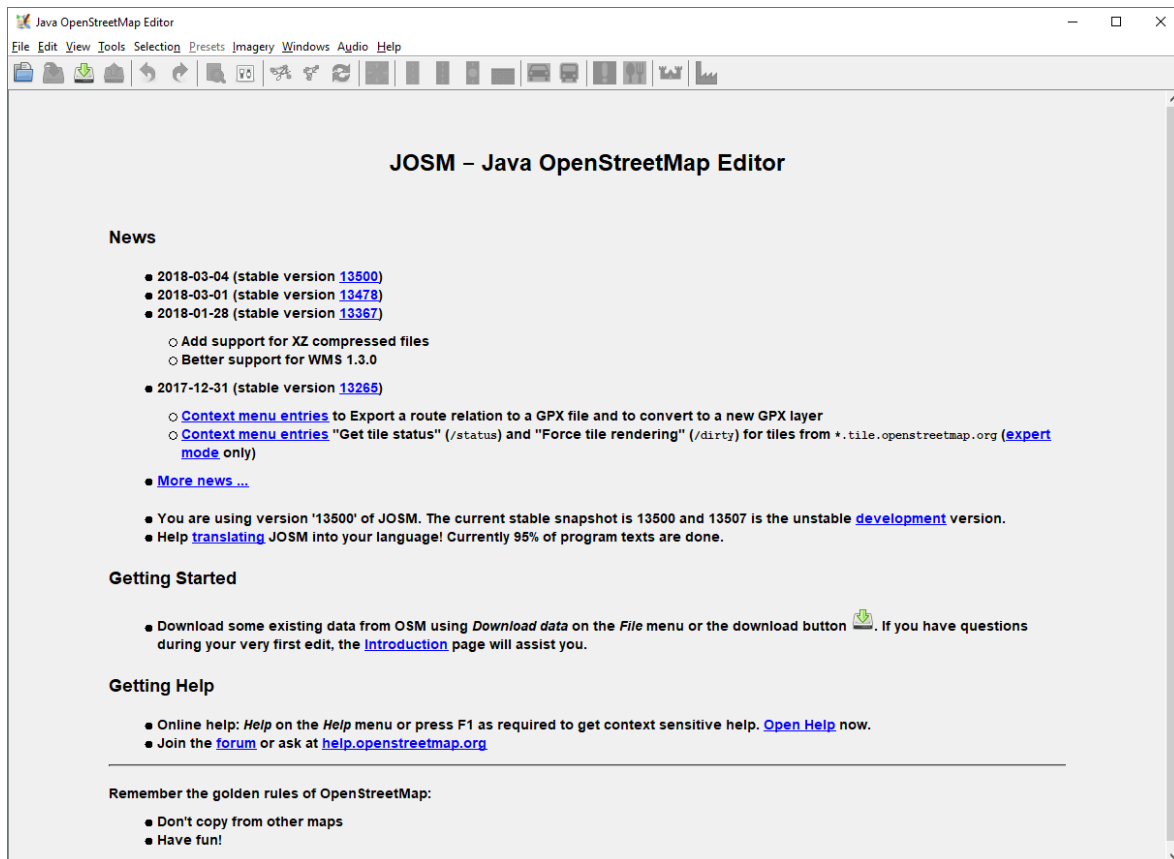
| | |
|---|---|
| A) Downloading and exporting the data using JOSM..... | 2 |
| B) Visualizing the data in QGIS | 5 |

Tools

- ✓ Java (<https://java.com/en/download/>): A platform-independent programming language
- ✓ JOSM (<https://josm.openstreetmap.de/>): A Java-based editor for OpenStreetMap data
- ✓ QGIS (<https://www.qgis.org/en/site/forusers/download.html>): A free open source GIS software which can process and visualize many GIS data formats

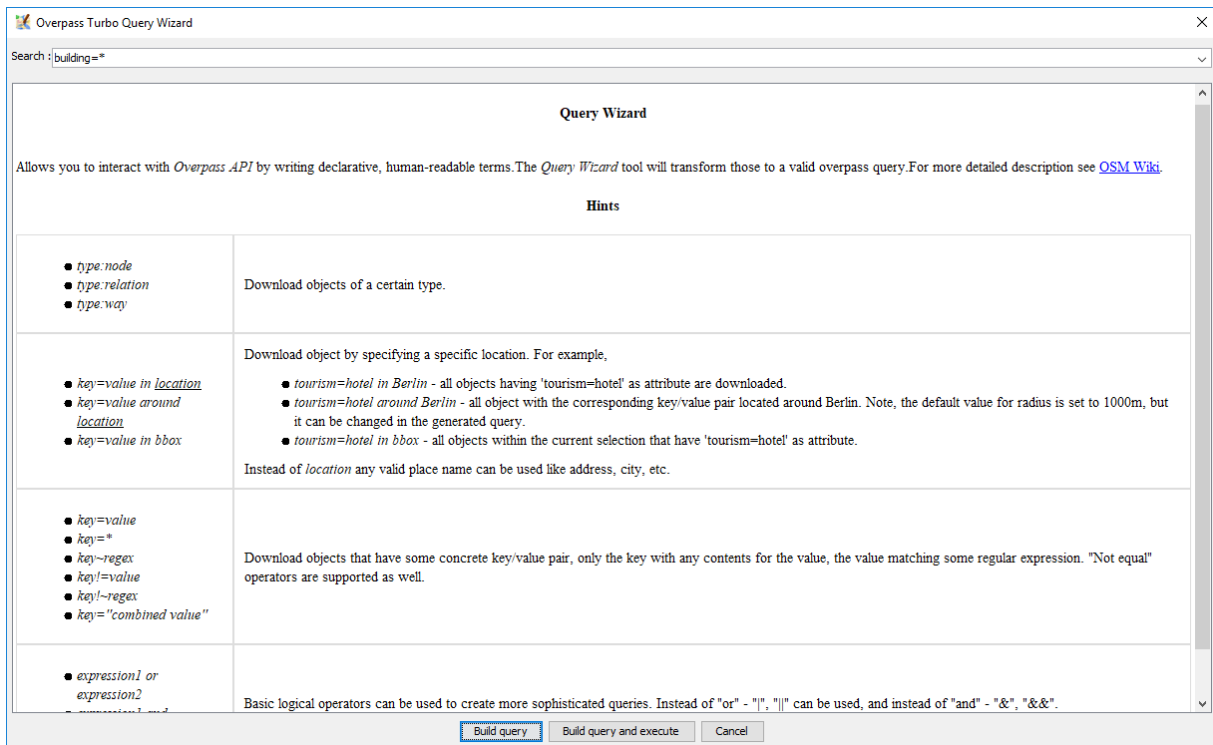
A) Downloading and exporting the data using JOSM

1. Install Java (to test if it is already/correctly installed, type “java” in the Windows Command Prompt; a list of usage options will be the output)
2. Download JOSM and start it by double clicking on the downloaded “josm.jnlp” file:

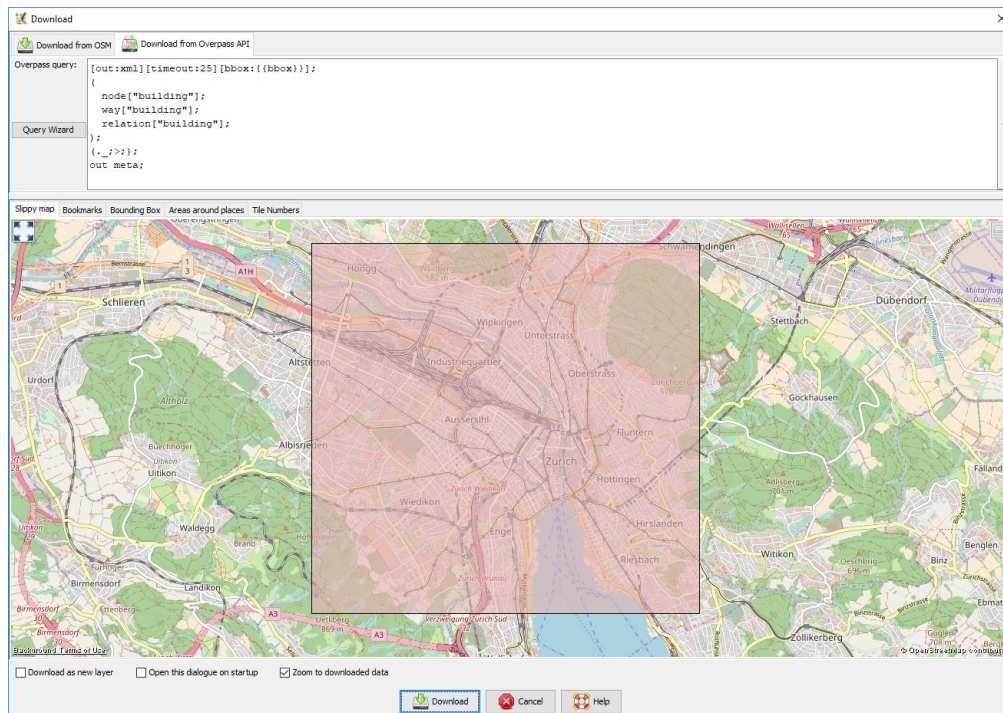


3. Turn on expert mode by selecting in the menu “View” > “Expert mode”.
4. Select the menu entry “File” > “Download data” (alternatively click on the corresponding icon in the tool bar).
5. Navigate to the tab “Download from Overpass API”.
6. Click on the “Query Wizard” button.
7. Enter “building=*” in the search text field.

8. Click on “Build query”:

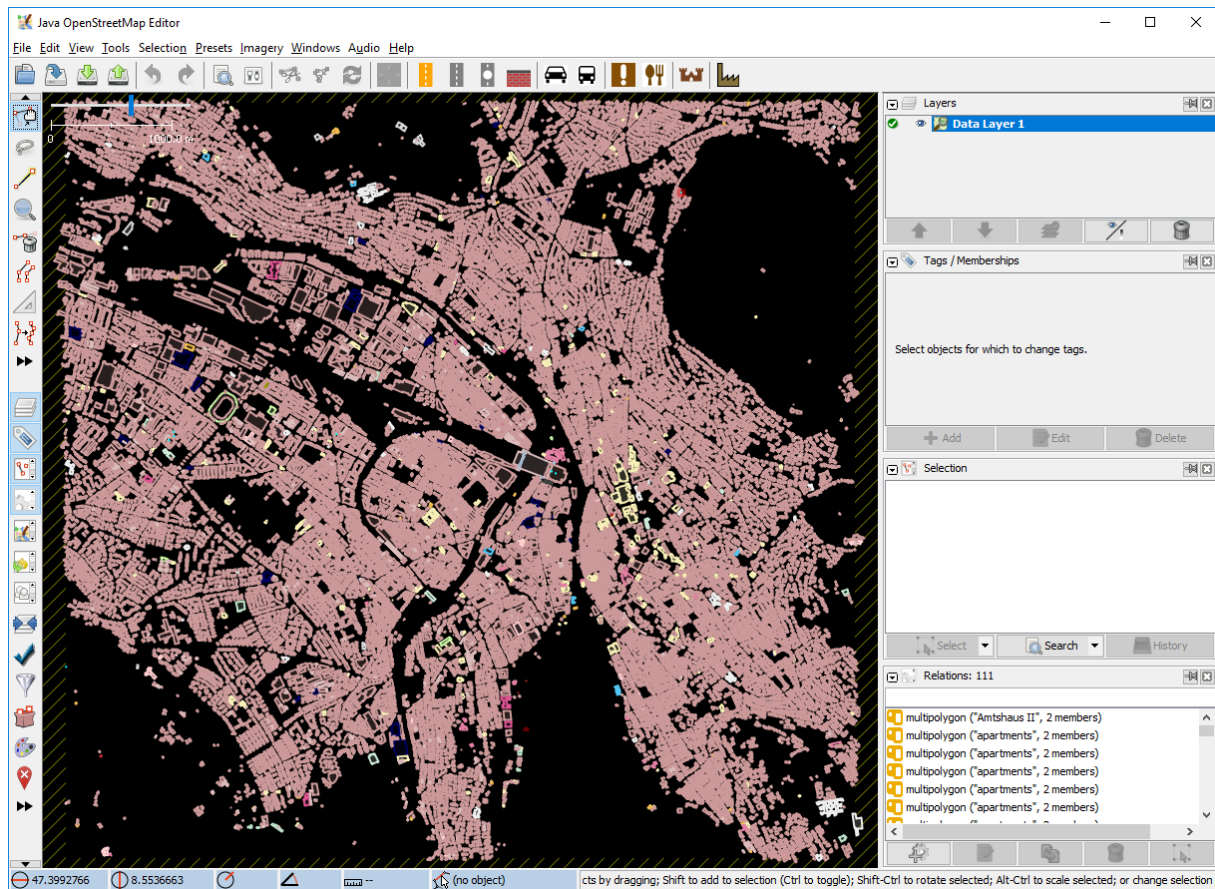


9. Select an extent on the map:



10. Finally click on the “Download” button.

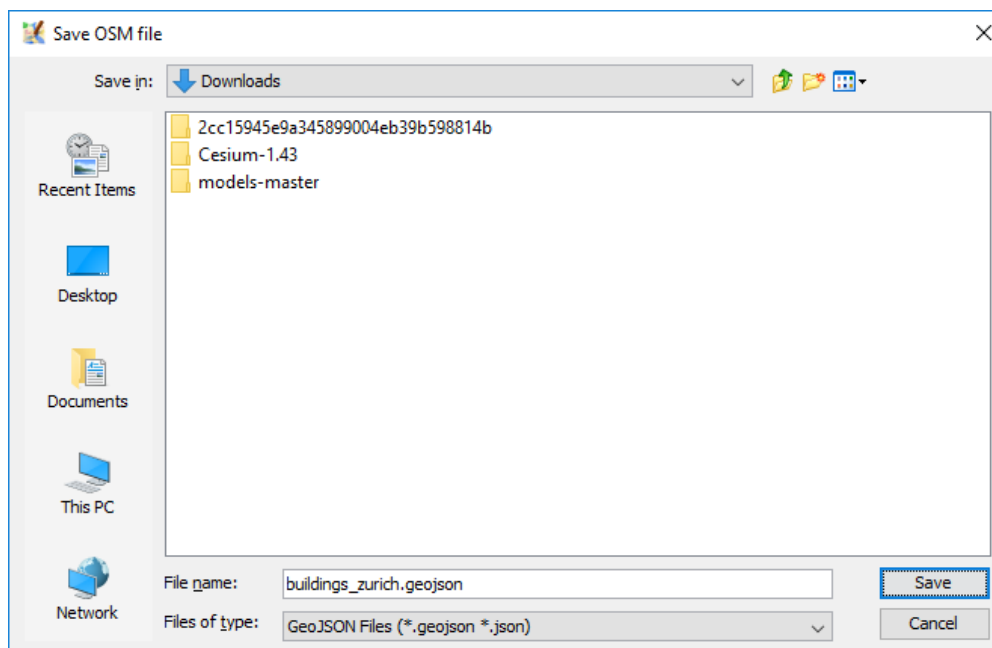
11. You should have downloaded all building features now:



12. Click in the menu on “File” > “Save As”.

13. Change the file type in the drop down menu to “GeoJSON”.

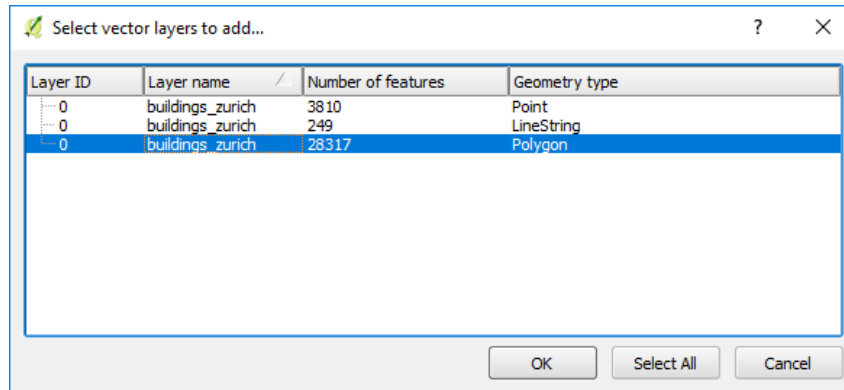
14. Click on “Save” to store the data in the selected folder:



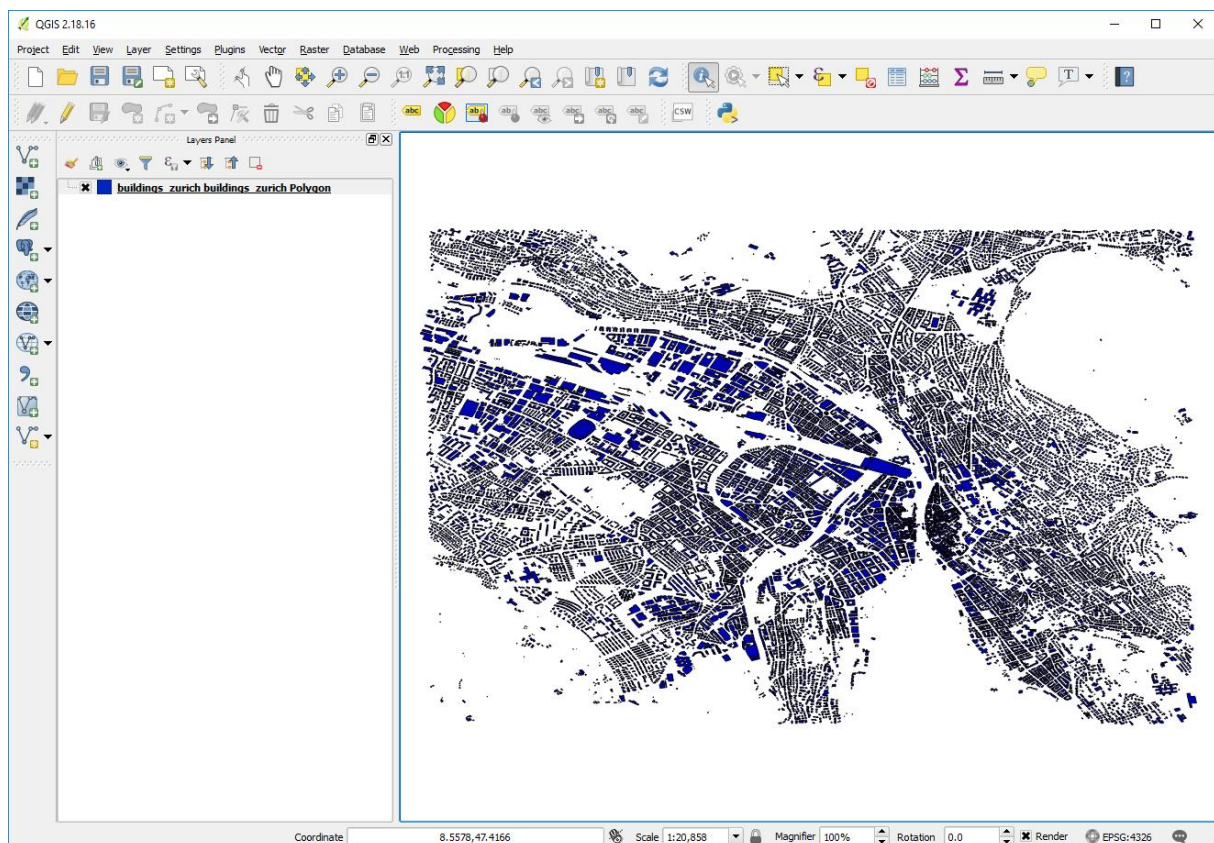
B) Visualizing the data in QGIS

You can now process the data in a GIS software of your choice, for example QGIS.

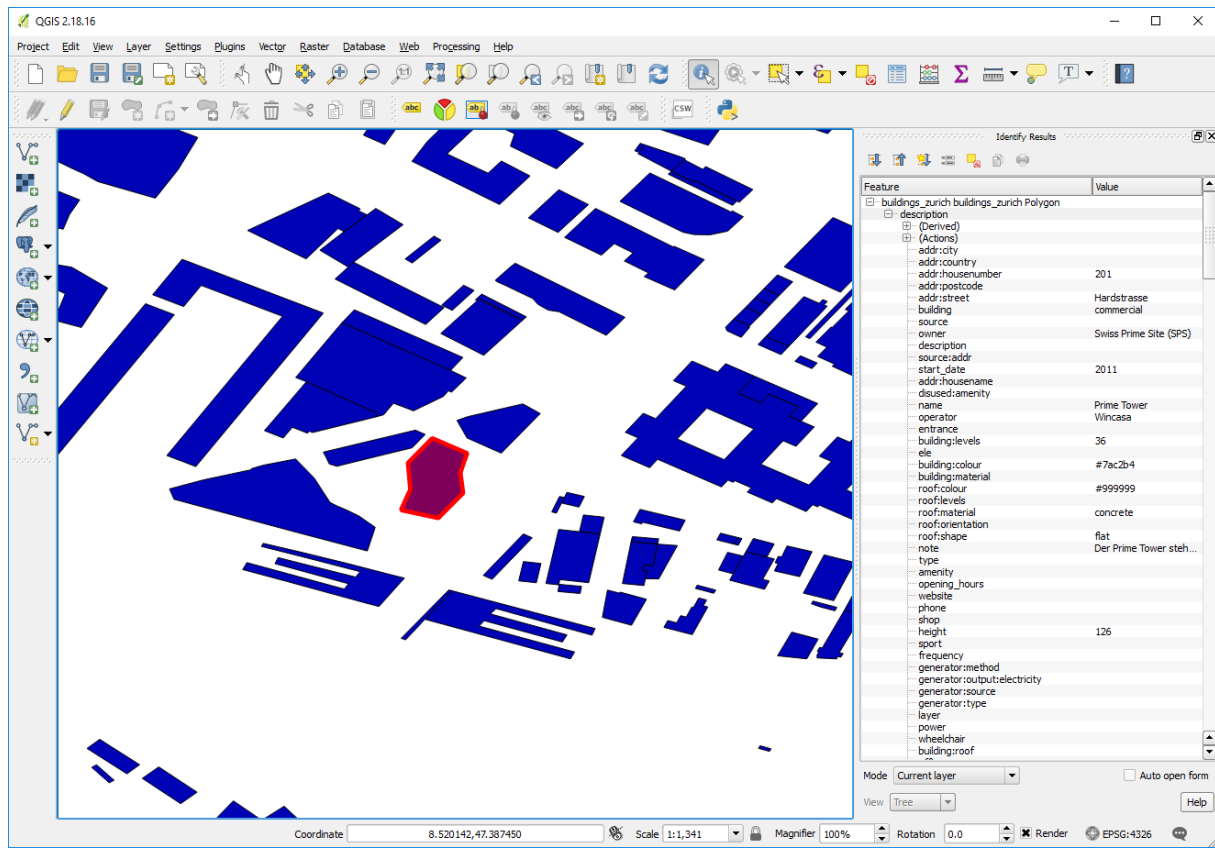
1. Drag & drop the GeoJSON file into the layers' panel (alternatively click on the Add Vector Data icon or select in the menu Layer > Add Layer > Add Vector Layer...)
2. Choose one or all geometry types in the following dialog (here only polygons are selected):



3. Press the "OK" button and inspect the data on the map:



4. Select the "Identify features" tool in the tool bar and click on polygons on the map to inspect attributes of a feature:



5. You are ready to customize the data for your own purposes now.

Raimund Schnürer, 12.03.2018