

TUTORIAL

3. OSM MAPPING FROM YOUR COMPUTER

3.2 STARTING TO MAP WITH OSM



This publication is supported by the French Development Agency (AFD). Nevertheless, the ideas and opinions presented in this document do not necessarily represent those of AFD.

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3. OSM MAPPING FROM YOUR COMPUTER

3.2 STARTING TO MAP WITH OSM

3.2.2 YOUR FIRST STEPS ON JOSM

i. Downloading and installing JOSM

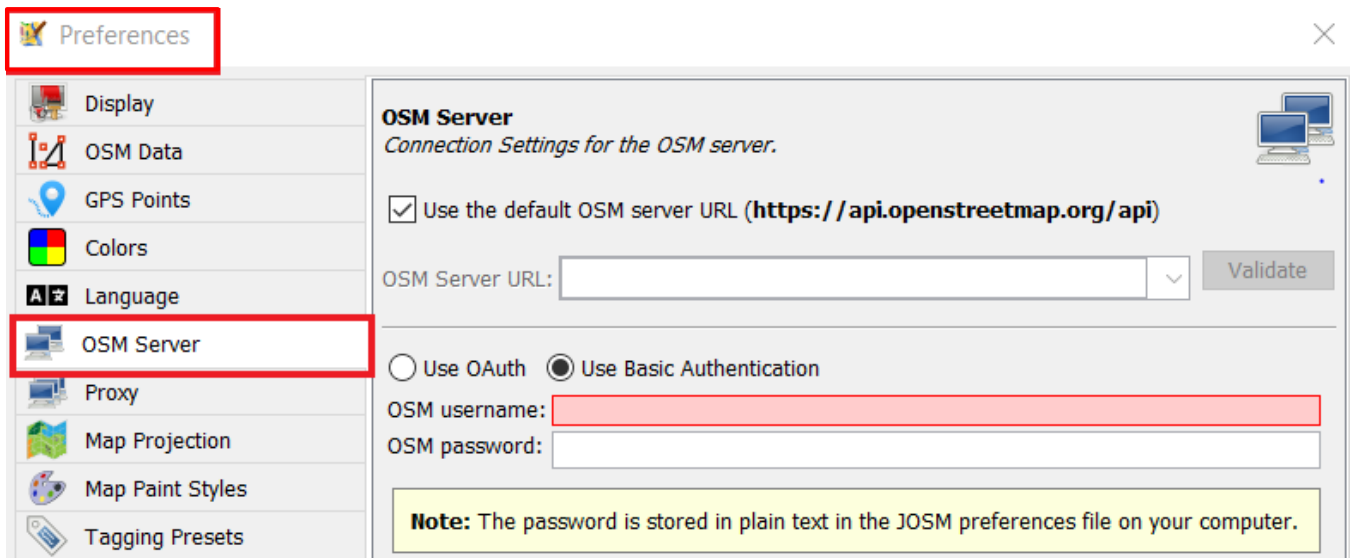
JOSM runs on JAVA, so in order to use JOSM, you must also **download and install JAVA on your computer**.

- Download and install JAVA.
- Once JAVA is installed, you can install JOSM, for that, open the JOSM editor webpage.
- Many versions are available, download the recommended version for the operating system of your computer.
- Open the downloaded folder and run the installation of JOSM, once it's finished, you can open the editor! (or it will automatically open).

ii. Setting up JOSM

The very first step is to **connect to the OSM server** meaning to connect to your OSM account.

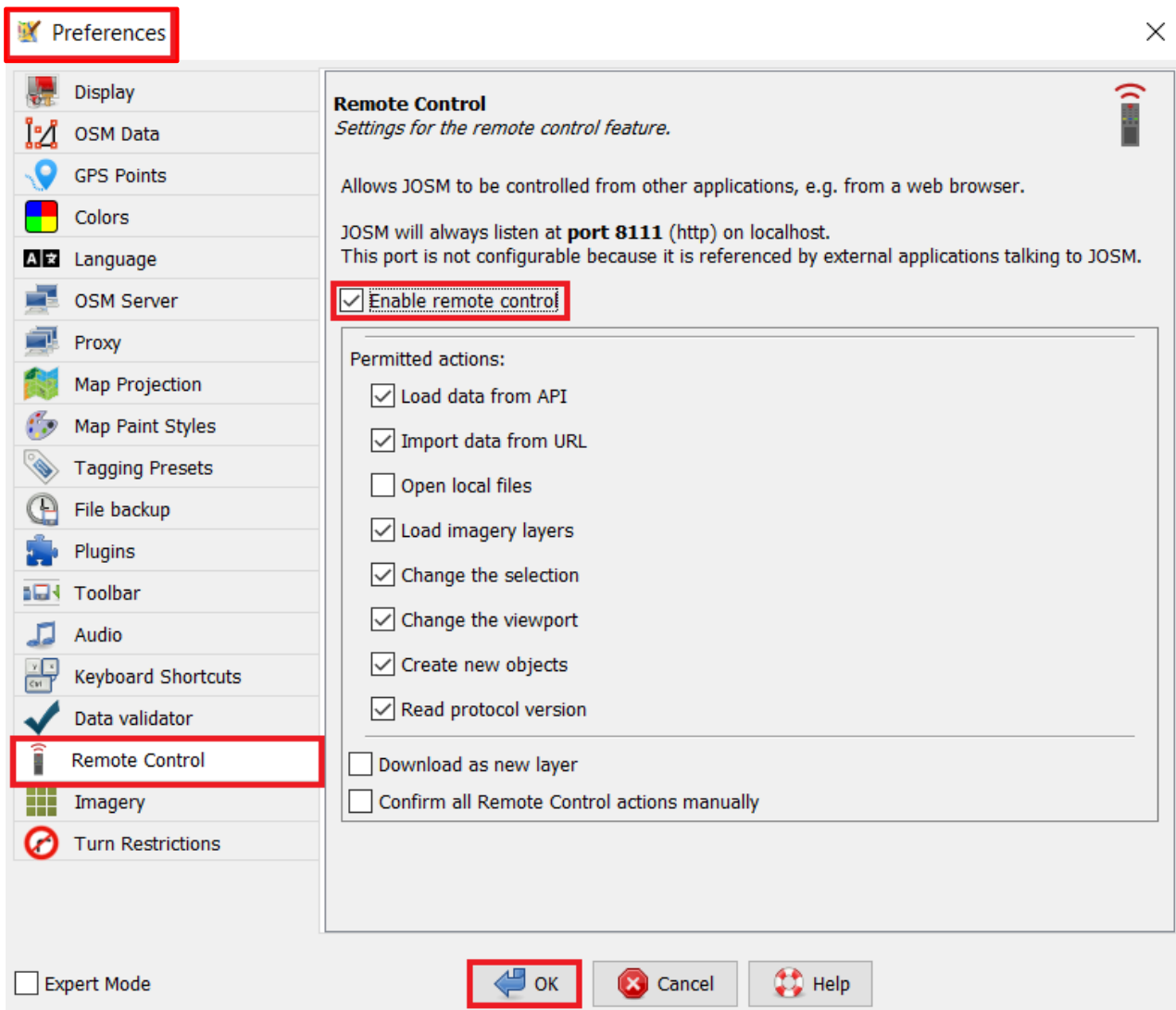
- Click on the **Edit** menu, then go to **Preferences**, and then to **OSM Server tab**.
- To log in, you have the choice between « **Basic Authentication** » or « **OAuth** ». The basic option is less secured than the « **OAuth** » option since your password is not encrypted and stored in your computer. Therefore, we strongly recommend that you use the « **OAuth** » option.
- Once the required information is completed, click on **OK**.



The second step consists of **enabling the remote control**, this authorizes JOSM to be controlled through other applications, especially through the HOT Tasking Manager (the task you select in the Tasking Manager is loaded directly in JOSM as well as the different changeset comments).

- In the same **Preferences** window, go to **Remote Control**.

- Tick the box **Enable remote control**.
- Then click on **OK** at the bottom of the page.



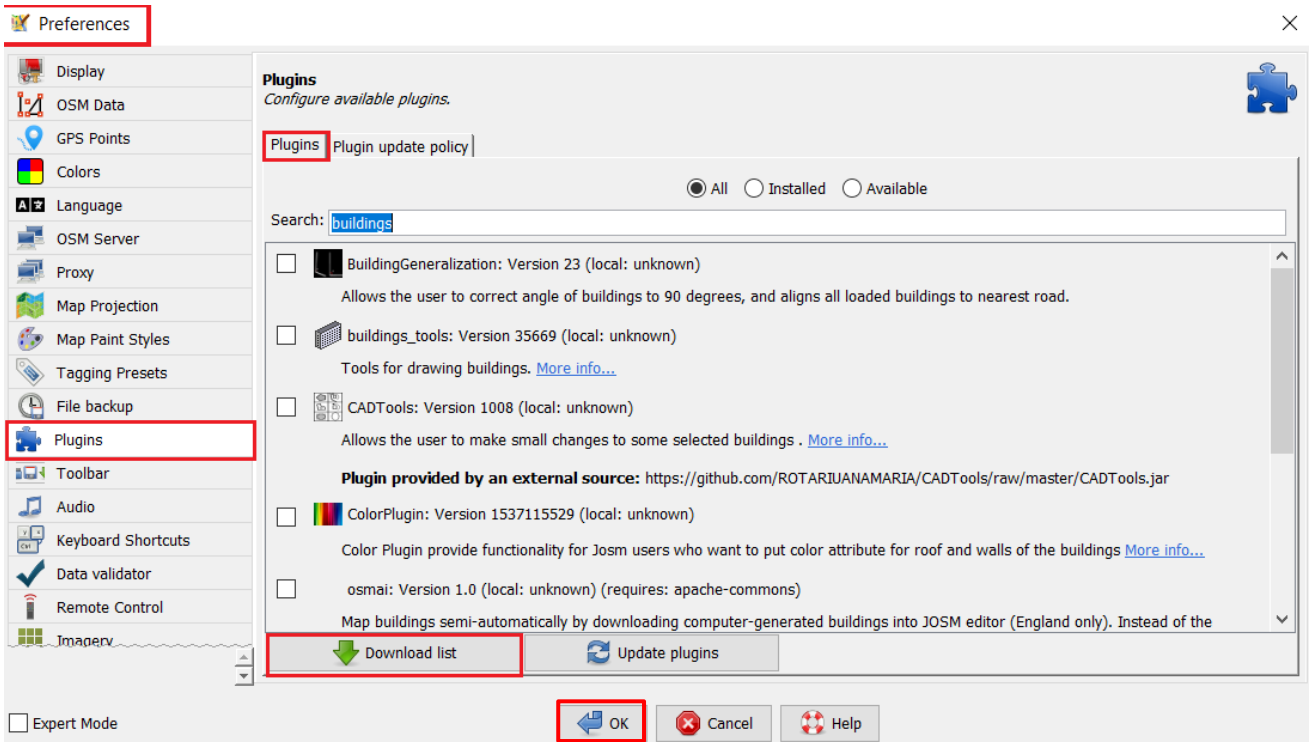
iii. Installing the plugins

There are a lot of plugins in JOSM. These tools will allow you to map more easily, more efficiently and more accurately!

We will recommend many of them to you throughout this tutorial!

For starters, you can install the plugin **buildings tools**, it's without a doubt the one you will be using the most. This plugin will allow you to map buildings fast and with ease and above all, to automatically tag your polygon!

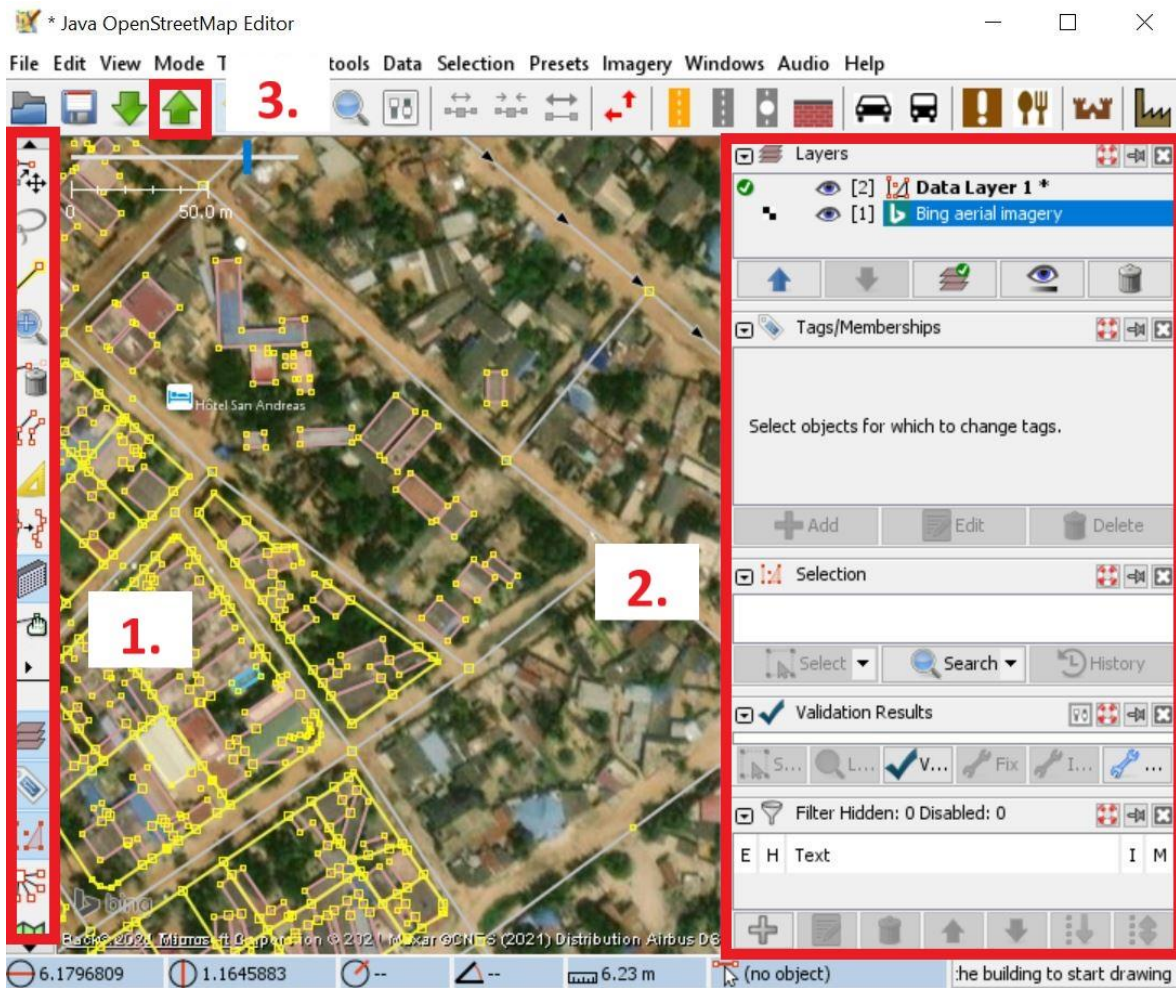
- Go to the **Edit** menu, then go to **Preferences**, then to **Plugins**.
- In the search bar type **buildings tools**.
- Select the plugin then click on **Download list**, then **OK**.
- Your new plugin will now appear in the toolbar at the top left of the screen.
- Once it's done, it's better to restart JOSM before you start mapping.



After having selected **Start mapping** in the Tasking Manager, the JOSM icon on your computer should be flickering in orange, you can open your editor, the square you have selected will automatically open.

iv. The main functions of JOSM

- Toolbar and plugins **(1)**.
- The main windows to open for mapping: Layers / Attributes / Selection **(2)**. There are other windows, especially for validation, that will be touched upon later.
- Button to send your edits into OSM **(3)**.



The unhatched square represents the one you chose in the Tasking Manager. **You must not map outside of it!**

v. Choosing the right imagery

In the upper menu bar, click on **Imagery**. You have many imagery options (Maxar, ESRI, Bing, etc.). **Select the one which is mentioned in the project instructions.** The chosen imagery will appear in the **Layers** window.

vi. Save your edits

- Click on the Send button **(3)**.
- If the editor detects **Errors**, it will signal them to you in a new **Suspected data found** window. Click on them and fix the mistakes.
- Don't tick the **« I would like someone to review my edits »** box (since they will be checked during the validation process) **(5)**.
- Finally, click on **Upload Changes**. **(6)**
- Your modifications are now sent and saved on OSM!
- The **Comments** and **Source** sections are auto-filled. This information will be associated to each one of your edits, don't delete them, they are important information for the OSM history record **(4)**.
- Don't forget to go back to the Tasking Manager page to signal that you have finished.

Upload to 'https://api.openstreetmap.org/api/0.6/'
✕

1 object to add:

- node

4.

1 object to modify:

- residential (landuse) (77 nodes)

5.

Description

Provide a brief comment for the changes you are uploading:

Your upload comment is *empty*, or *very short*. This is technically allowed, but please consider that many users who are watching changes in their area depend on meaningful changeset comments to understand what is going on! If you spend a minute now to explain your change, you will make life easier for many other mappers.

Specify the data source for the changes

Automatically obtain source from current layers ([just once](#))

Bing

✓ Thank you for providing the data source!

Settings:

- Objects are uploaded to a **new changeset**.
- The changeset is going to be **closed** after this upload
- Uploading **2 objects** to **1 changeset** using **1 request**

I would like someone to review my edits.

6.

↑ Upload Changes

✕ Cancel

🔄 Help

Before saving, **zoom in and out** and look at your square as a whole to be sure you haven't left anything out!

vii. Time-saving tips to help you map efficiently

- When in doubt, do not map and most of all do not delete existing data.
- Avoid mapping the elements that are not requested in the instructions, particularly areas like forests, woods, and the rivers if it's not required. Otherwise it will create a map that's not homogeneous and consistent since other mappers won't map what is not required.
- Do not create an object with no attribute! Carefully read the instructions to know what to do, but also which attribute to use.
- Zooming in/out is the key to understand what you're mapping: it is often easier to identify elements while zoomed out (rivers, buildings) but you will have to get closer to map them.
- Once you're finished mapping a square, keep going with one that is right next to it to create a consistency between the different mapped elements.
- Make sure to regularly save your edits, to avoid conflicts with the people mapping the surroundings of your square.
- Check out the attributes used with the elements already mapped, that can often help you choose the best attributes to use.
- It is always possible to change and undo an edit if you made an error!

viii. Keyboard shortcuts

JOSM Keyboard Shortcuts Cheat Sheet

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December 2015
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Tools

CTRL+F = Search
 SHIFT+B = Distribute nodes
 C = Combine Ways
 G = Unglue ways
 J = Join Node to Way
 L = Align nodes into a straight line
 M = Merge Nodes
 O = Align nodes in circle

Modes

S = Select objects
 A = "Standard Mode", it will draw "connected" lines
 A + hold Alt = starts a new way, rather than continuing an existing way
 A + hold Shift = will create isolated nodes
 A + hold Ctrl = will disable "snapping" to existing ways and nodes
 A toggled by A = will enable "angle-snapping" mode
 W = Improve Way Accuracy
 Delete = Delete...
 Ctrl + Delete + hold Alt = Help/Action/Delete#Altmodifier
 Ctrl + Delete + hold Shift = will remove segments under cursor and additionally split way in two
 Ctrl + Delete + hold Ctrl = Help/Action/Delete#Ctrlmodifier

Tools

P = Split Way
 Q = Orthogonalize Shape
 R = Reverse Way
 Del = Delete object but don't change into delete mode
 Ctrl+D = Duplicate
 Esc = Unselect all

Modes

X = Stretch a part of a way (create a building or something else)
 X toggled by X = Dual alignment (this mode uses two reference segments (neighbors of the original segment) and moves the nodes each according to its own reference segment)
 X + hold Ctrl while dragging a single node = will move node along one it's adjacent segments
 X + double click at way = a double click at a way segment inserts a new node
 X + hold Ctrl = move segment parallel to base segment
 X + hold Shift = Always create nodes
 X + hold Alt = Don't alter original way, create new way instead

All modes

Click-RightMouse = Click and drag to move the map.
 Scroll-Wheel = Zoom in and out

Interface & Appearance

Tab = Toggle dialogs
 F11 = Fullscreen mode
 CTRL+J = Opens the Jump To Position dialog

CTRL+SHIFT+F = Enable/Disable automatic centering of the map view to last placed node
 Ctrl+W = Toggle between wireframe and mappaint mode

Workflow

F1 = press anywhere to open main Help page
 F1 = press over element in question to open context-sensitive Help page
 Shift+F1 = About screen (with JOSM version number)

Ctrl+Z = Undo
 Ctrl+Y = Redo
 Ctrl+N = New file
 Ctrl+O = Open file
 Ctrl+Q = Exit Applications
 F12 = Preferences.

Ctrl+Shift+v = Download
 Ctrl+Shift+^ = Upload
 Ctrl+E = Export to GPX
 Ctrl+S = Save file
 Ctrl+Shift+S = Save as

Viewport

Z = Zoom in by dragging
 + = Zoom in
 - = Zoom out
 Ctrl+, = Zoom in
 Ctrl+., = Zoom out
 Ctrl+< = Move visible area
 Ctrl+^ = Move visible area
 Ctrl+> = Move visible area
 Ctrl+v = Move visible area
 1 = Zoom to data
 2 = Zoom to layer
 3 = Zoom to selection
 4 = Zoom to conflict
 5 = Zoom to download
 Shift+A = Cycle through the different Auto zoom modes

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