HOT Tasking Manager and JOSM: Guidance for New Users

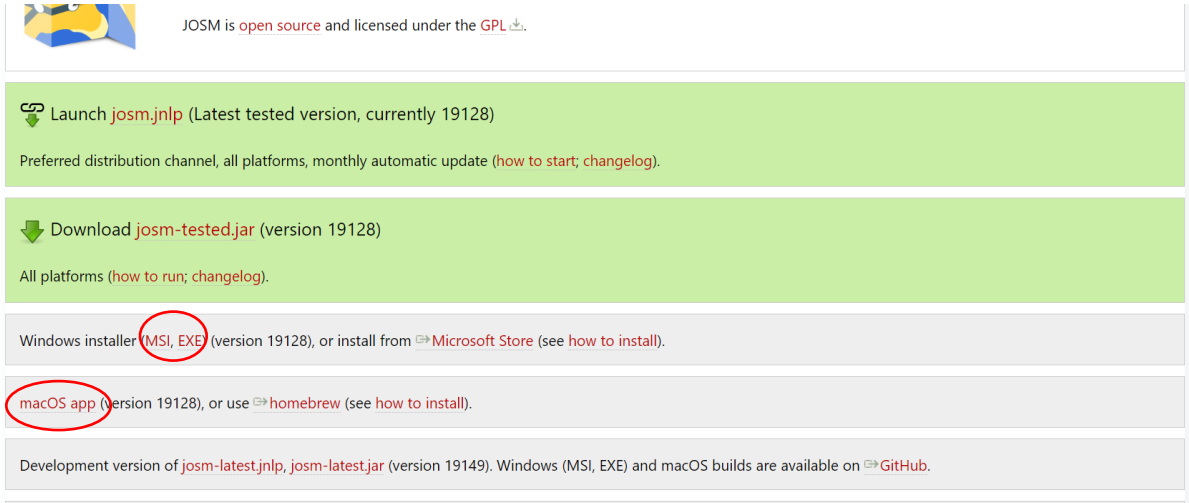
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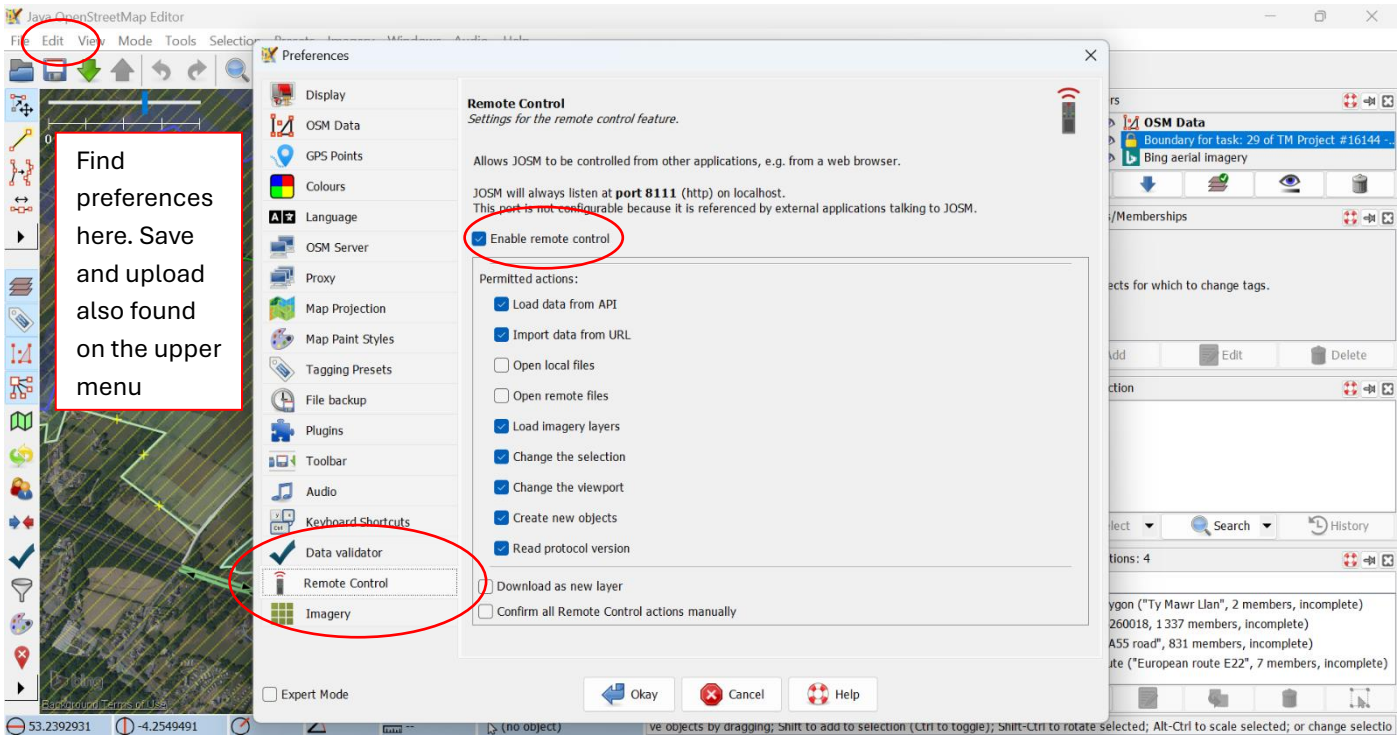
1. How to set up JOSM

The Java OpenStreetMap Editor (JOSM) needs to be installed before you can start validating tasks. You can download and install JOSM for Windows/MacOS using the link below

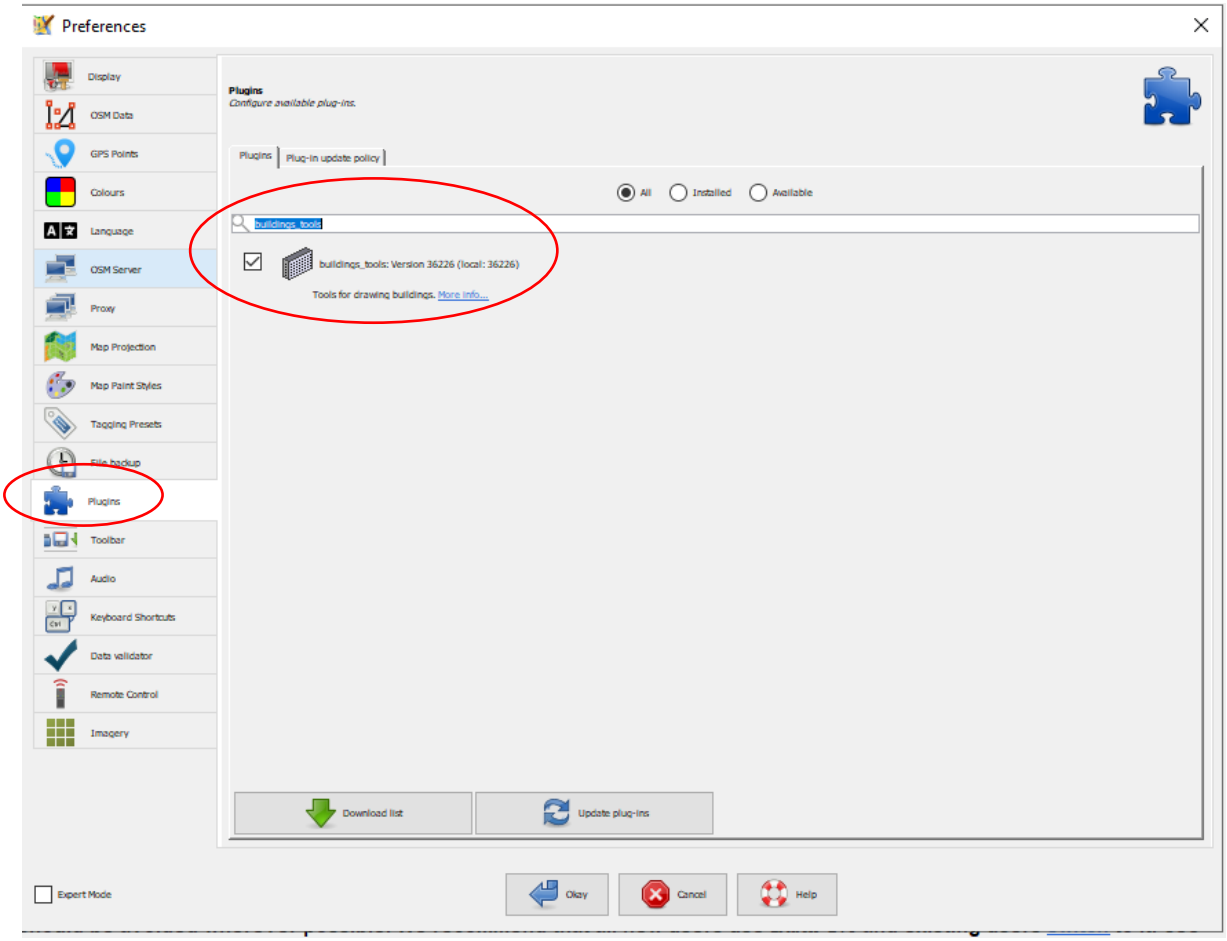
https://josm.openstreetmap.de/



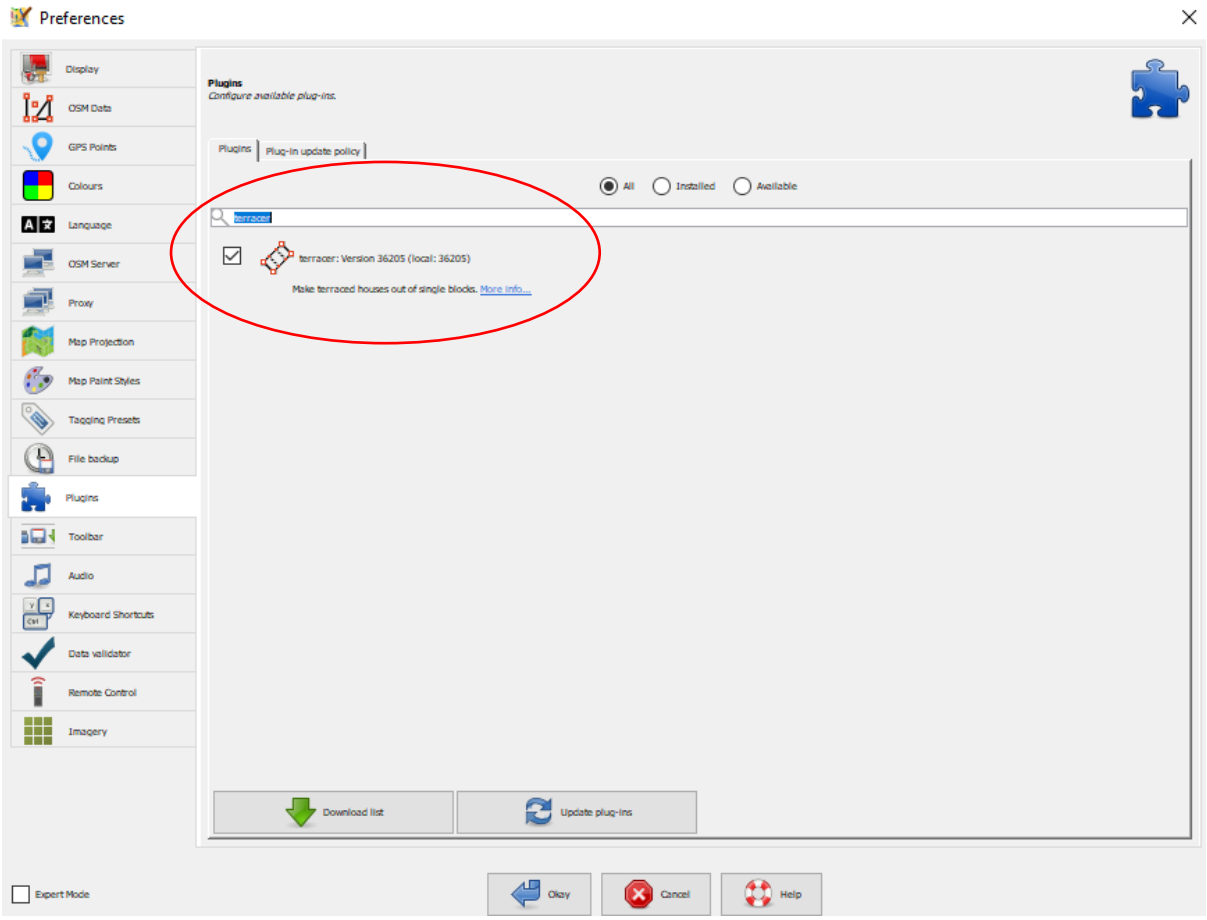
Open JOSM and go to the edit tab, then preferences at the bottom of the drop-down window (or press F12). In preferences, select Remote Control near the bottom of the preference list and select ‘Enable remote control’.



Select Plugins from the preferences options window and search for ‘buildings’ to download and enable the ‘building_tools’ plugin.

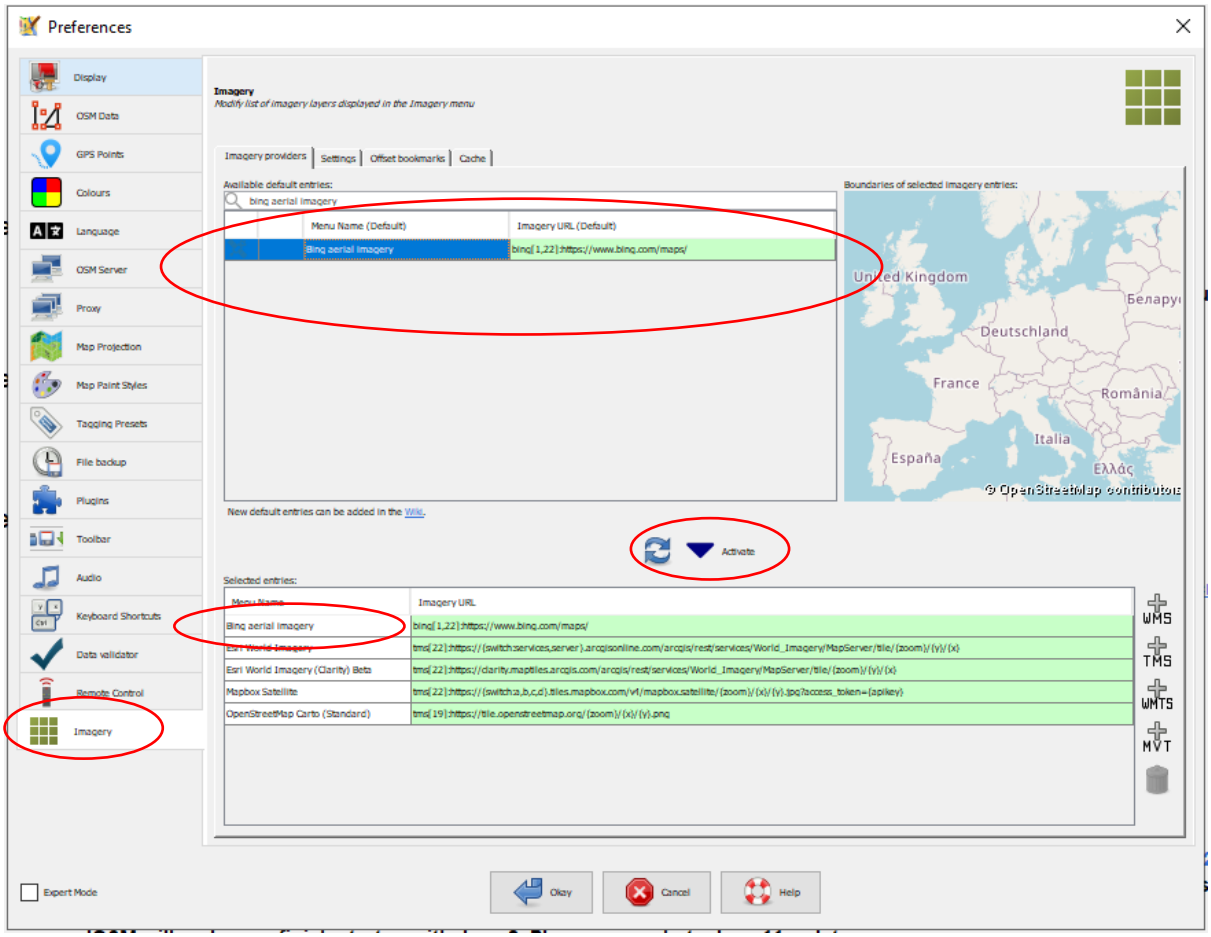


While adding plugins, you should also search ‘terracer’ to download and enable the ‘terracer’ plugin (Additional guidance on these tools can be found in the Tutorial’s spreadsheet, linked in the Further Information section).

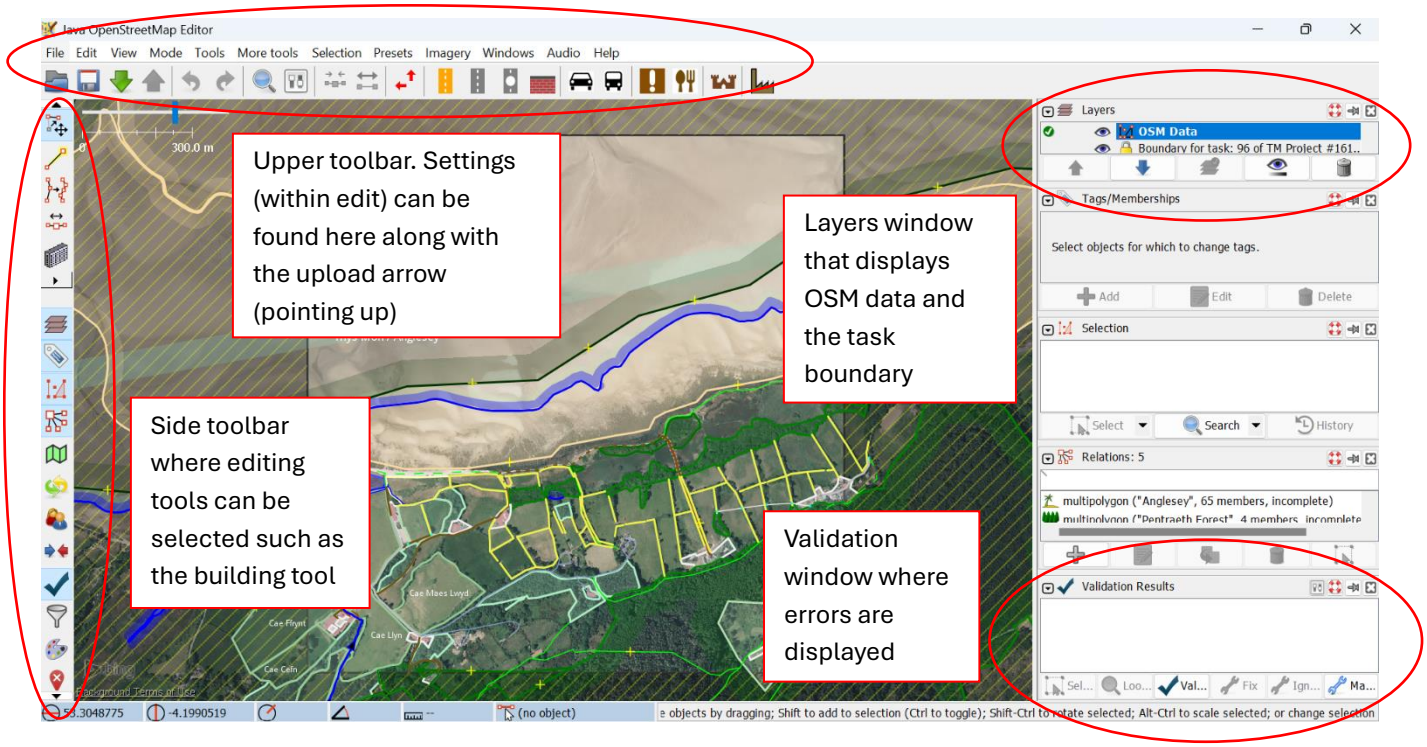


Select Imagery from the preferences options window ensure Bing aerial imagery is activated in the list at the bottom of the screen.

If it is not present, search for Bing aerial imagery in the search box and select ‘Activate’.


Preferences
Display
OSM Data
GPS Points
Colours
Language
OSM Server
Proxy
Map Projection
Map Paint Styles
Tagging Presets
File backup
Plugins
Toolbar
Audio
Keyboard Shortcuts
Data validator
Remote Control
Imagery
Imagery
Modify list of imagery layers displayed in the Imagery menu
Imagery providers
Settings
Offset bookmarks
Cache
Available default entries:
bing aerial imagery
Menu Name (Default)
Imagery URL (Default)
Bing aerial imagery
bing[1,22]:https://www.bing.com/maps/
Boundaries of selected imagery entries:
United Kingdom
Deutschland
France
España
Italia
Ελλάς
© OpenStreetMap contributors
New default entries can be added in the Wiki.
Activate
Selected entries:
Menu Name
Imagery URL
Bing aerial imagery
bing[1,22]:https://www.bing.com/maps/
Esri World Imagery
tms[22]:https://{switch:services,server}.arcgisonline.com/arcgis/rest/services/World_Imagery/MapServer/tile/{zoom}/{y}/{x}
Esri World Imagery (Clarity) Beta
tms[22]:https://clarity.maptiles.arcgis.com/arcgis/rest/services/World_Imagery/MapServer/tile/{zoom}/{y}/{x}
Mapbox Satellite
tms[22]:https://{switch:a,b,c,d}.tiles.mapbox.com/v4/mapbox.satellite/{zoom}/{x}/{y}.jpg?access_token={apikey}
OpenStreetMap Carto (Standard)
tms[19]:https://tile.openstreetmap.org/{zoom}/{x}/{y}.png
WMS
TMS
WMTS
MVT
Expert Mode
Okay
Cancel
Help

2. The main JOSM interface

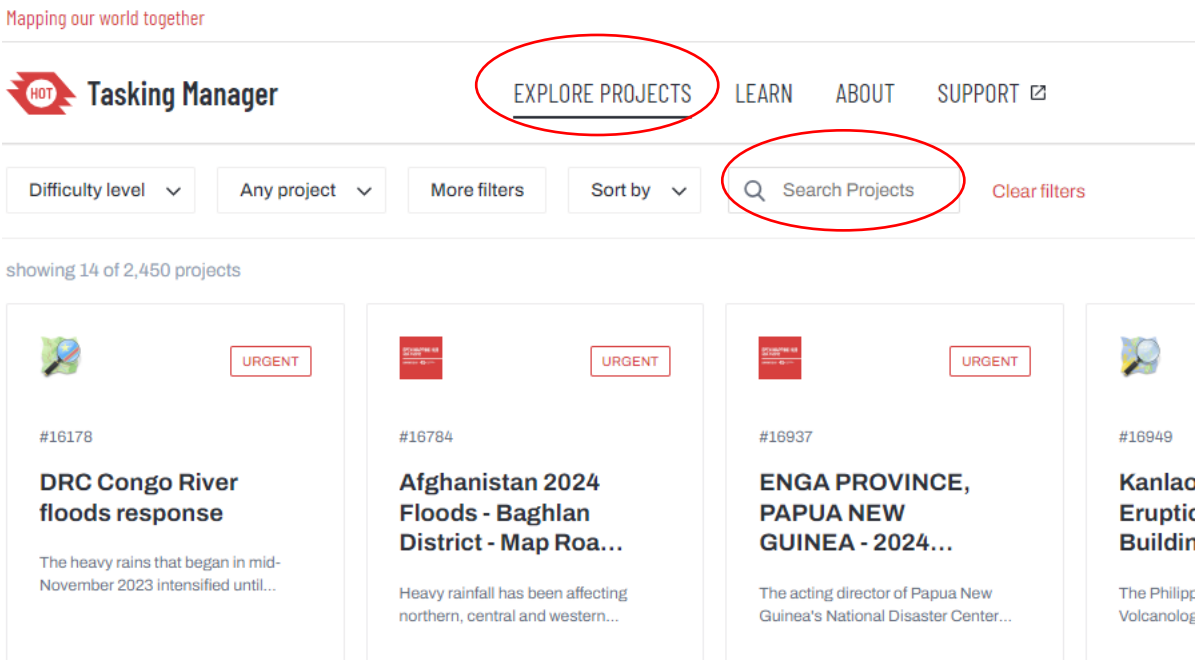


3. How to find relevant mapping projects

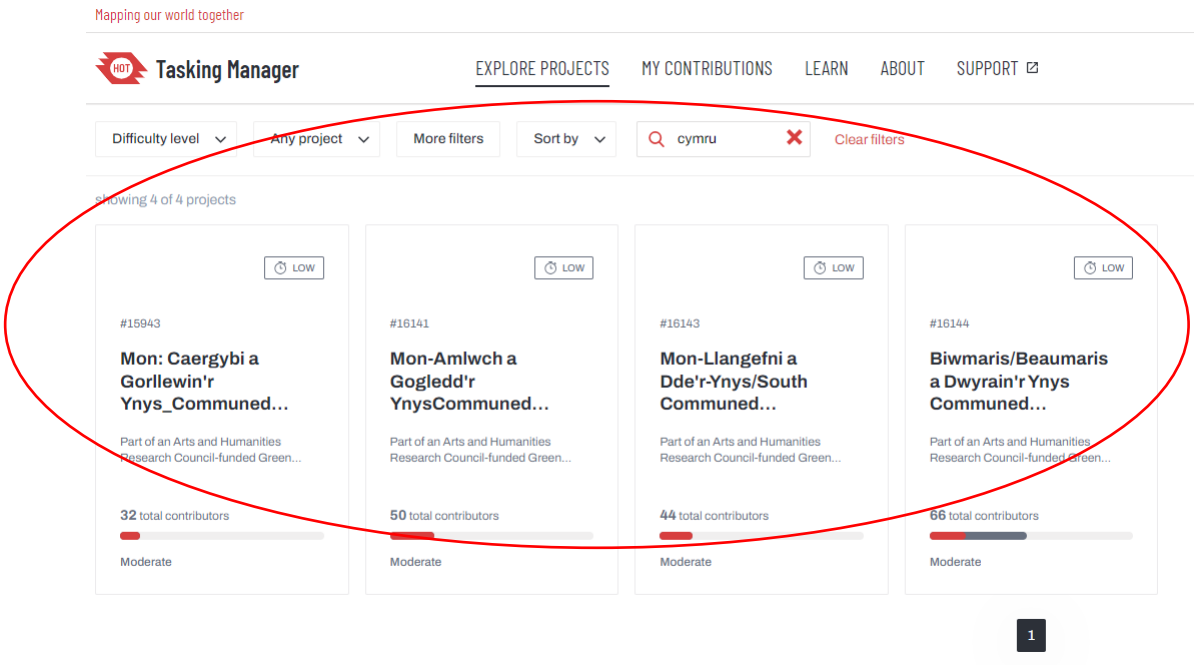
You can access the Hot Tasking Manager by visiting the link below:

https://tasks.hotosm.org/

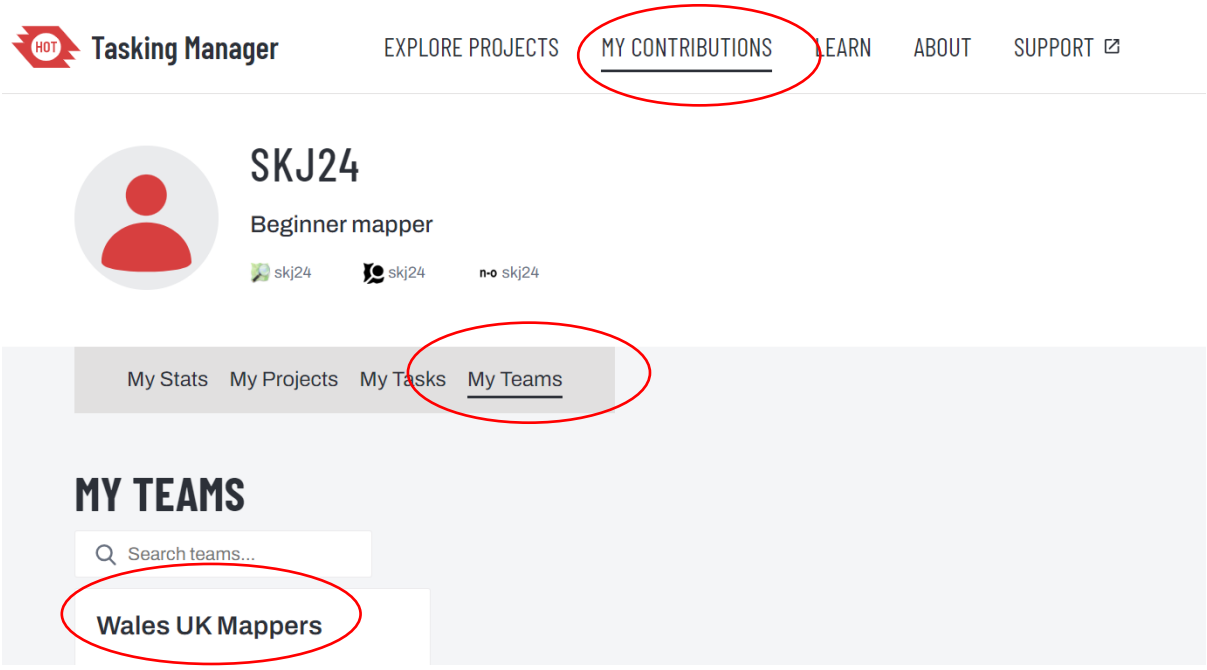
Projects in the HOT tasking manager can be found by clicking on the 'Explore Projects' tab and searching for keywords in the search box.



In this case, searching for ‘Cymru’ will show our projects .

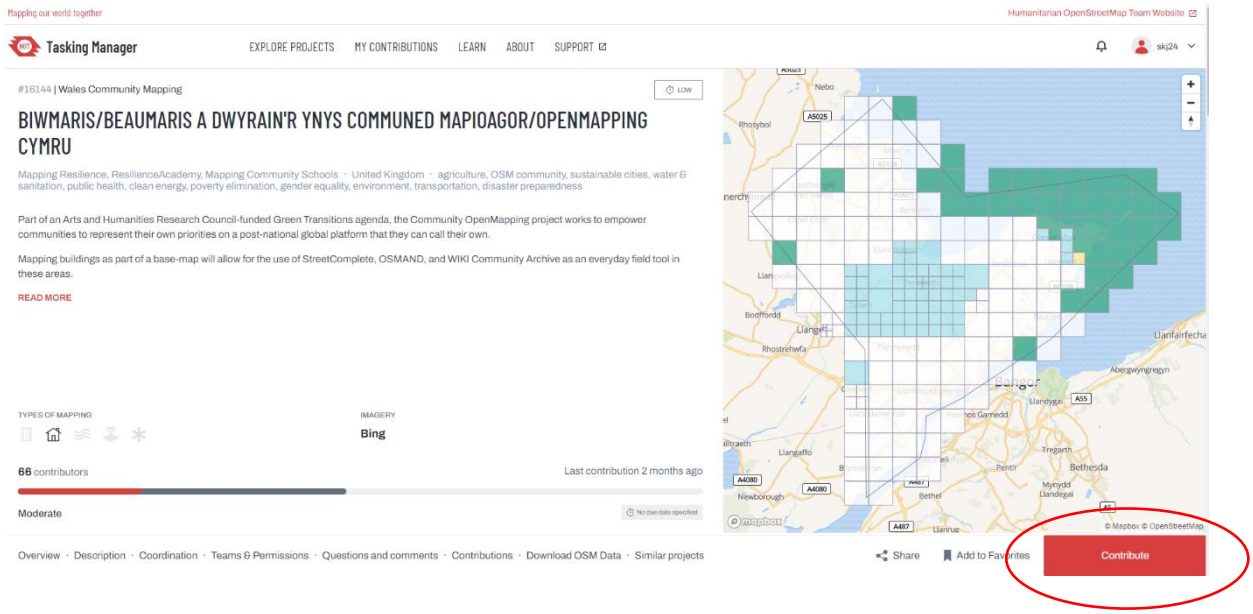


Alternatively, you can find Wales UK Mappers projects by clicking ‘My Contributions’ then ‘My Teams’.



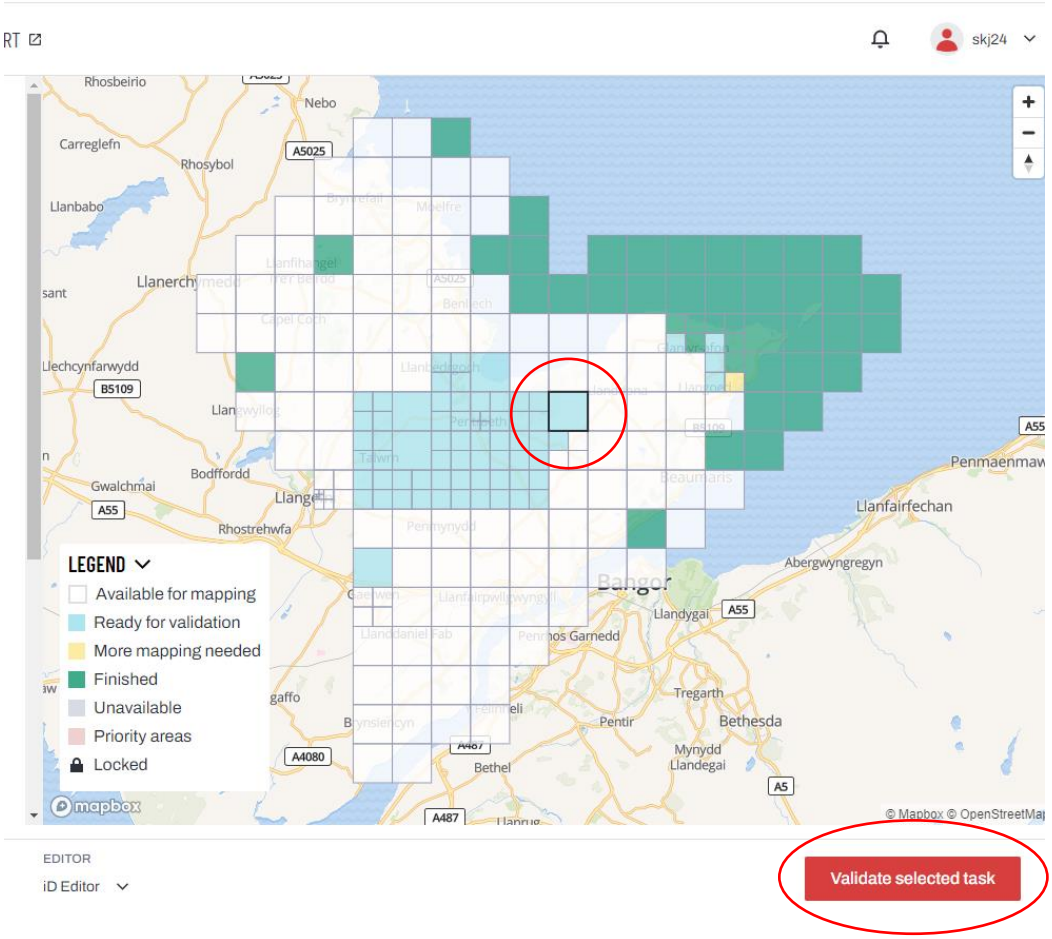
4. Viewing mapping tasks and checking their validation status

For each of the four projects (one for each quarter of Anglesey), opening the task page and clicking **contribute** on the bottom right gives the option to edit the project.



Once you have clicked Contribute, you select individual tasks by clicking the squares on the map. White squares on the map are tasks which are incomplete, light blue squares are tasks waiting for validation and green squares have been validated by a team member.

To view the Validate menu for a task, click on a blue square and then click Validate Selected Task in the bottom right corner.



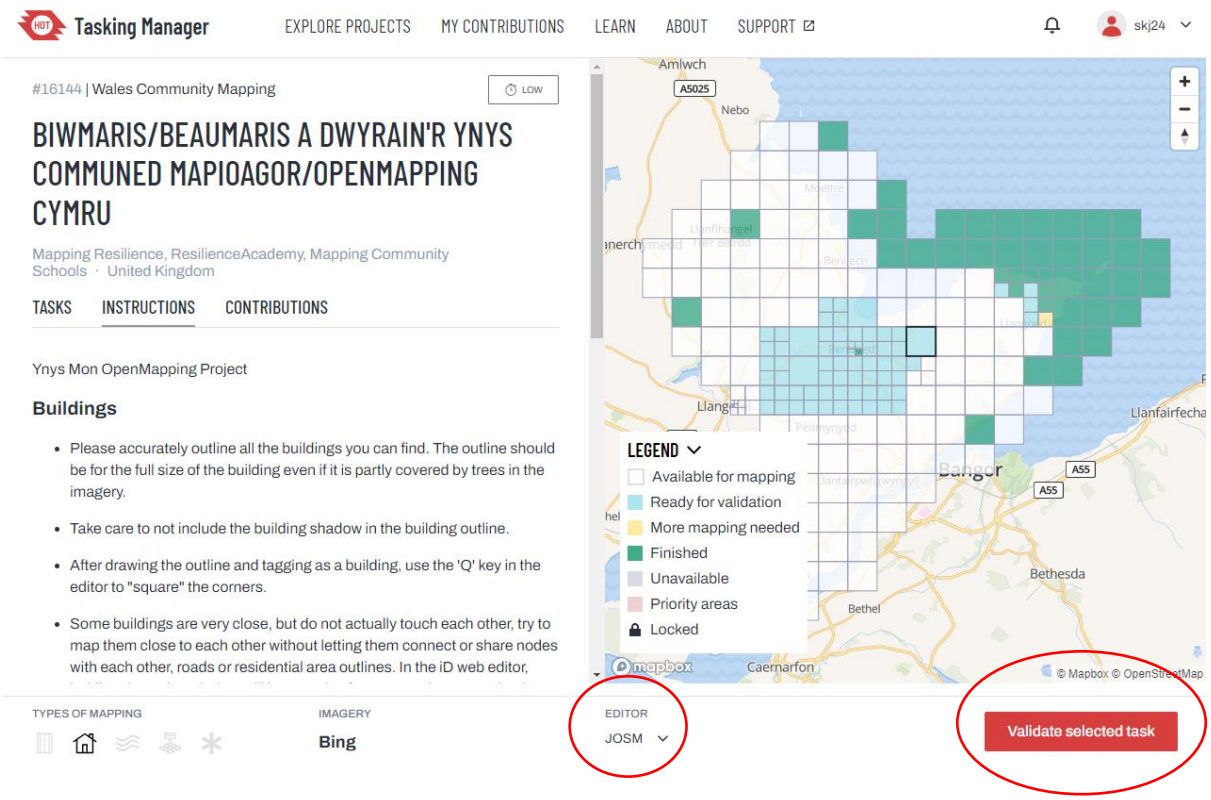
Once you have clicked 'Validate Selected Task', you will be asked to check whether the task is well mapped. This process is called validating the task and should be done using the JOSM software installed earlier. You can find out how to validate a task in **Section 5**.

5. Validating Tasks using JOSM

Before starting the validation process, please make sure the JOSM software is installed and open on your computer.

In the HOT manager, click on the square you want to validate (i.e. a blue square).

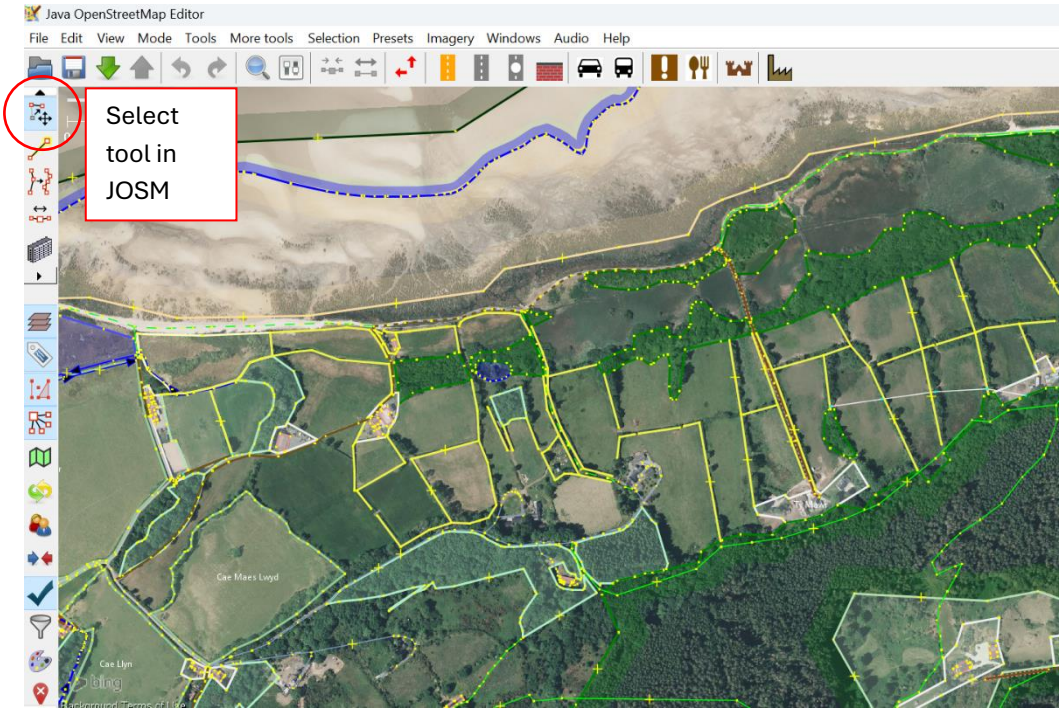
Make sure you have selected JOSM from the 'Editor' menu. Once you have changed the Editor to JOSM, click **Validate selected task**.



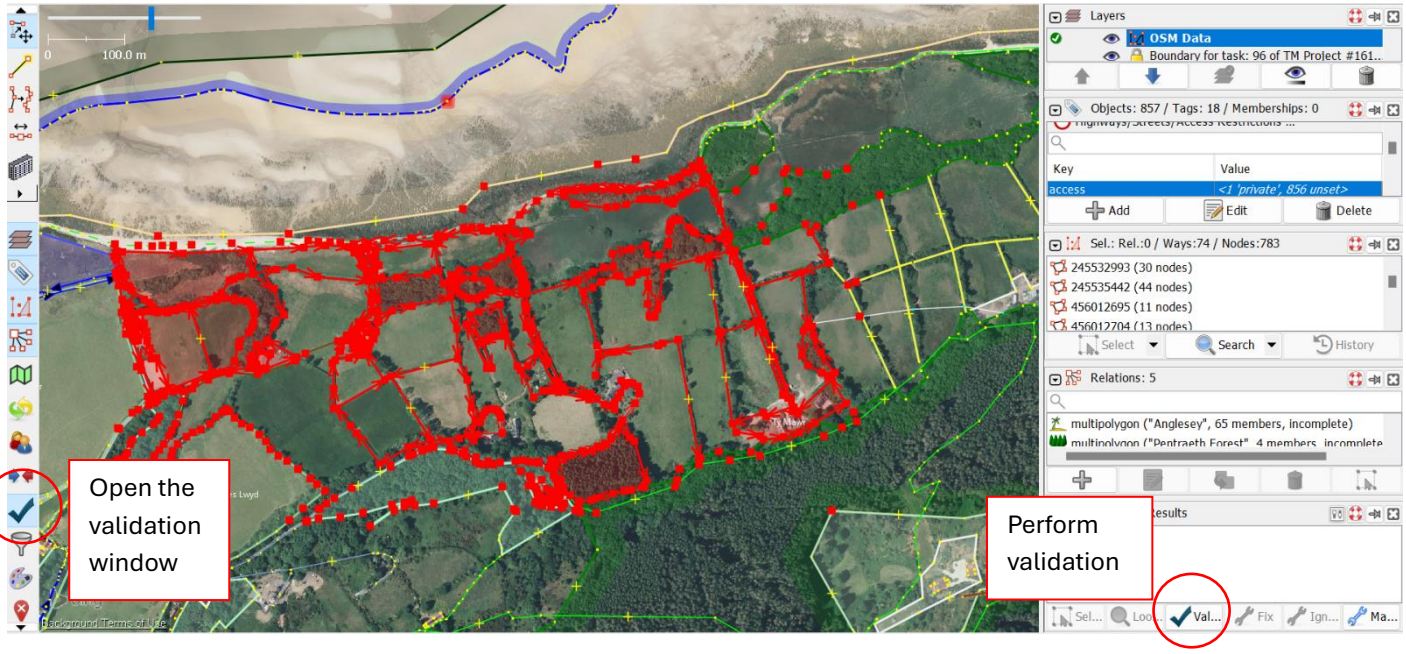
Open JOSM, which should now display the task you have chosen to validate.

To navigate the map, right click and drag the cursor to pan and use the scroll wheel to zoom (or pinch and spread on a trackpad).

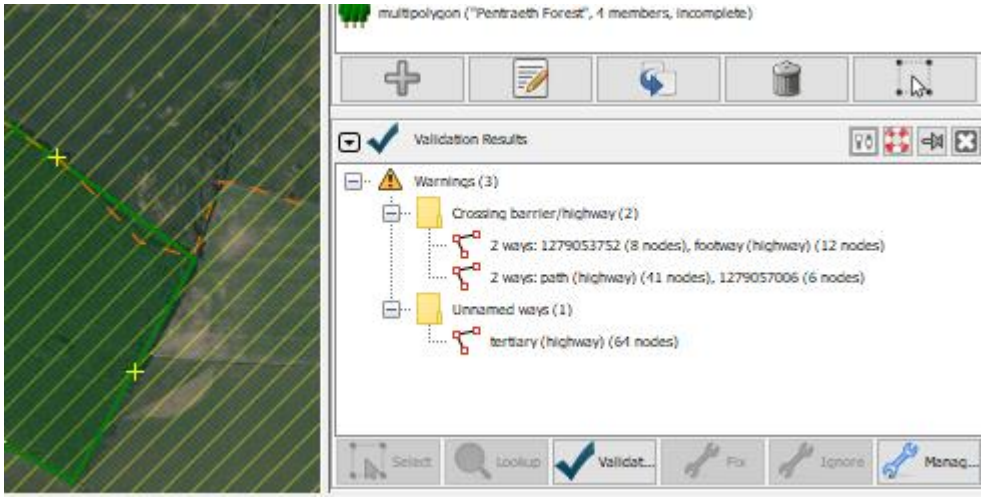
To validate the features, click the Select tool (or press S) and drag a box around the task area to select the features. Selected features will display in red.



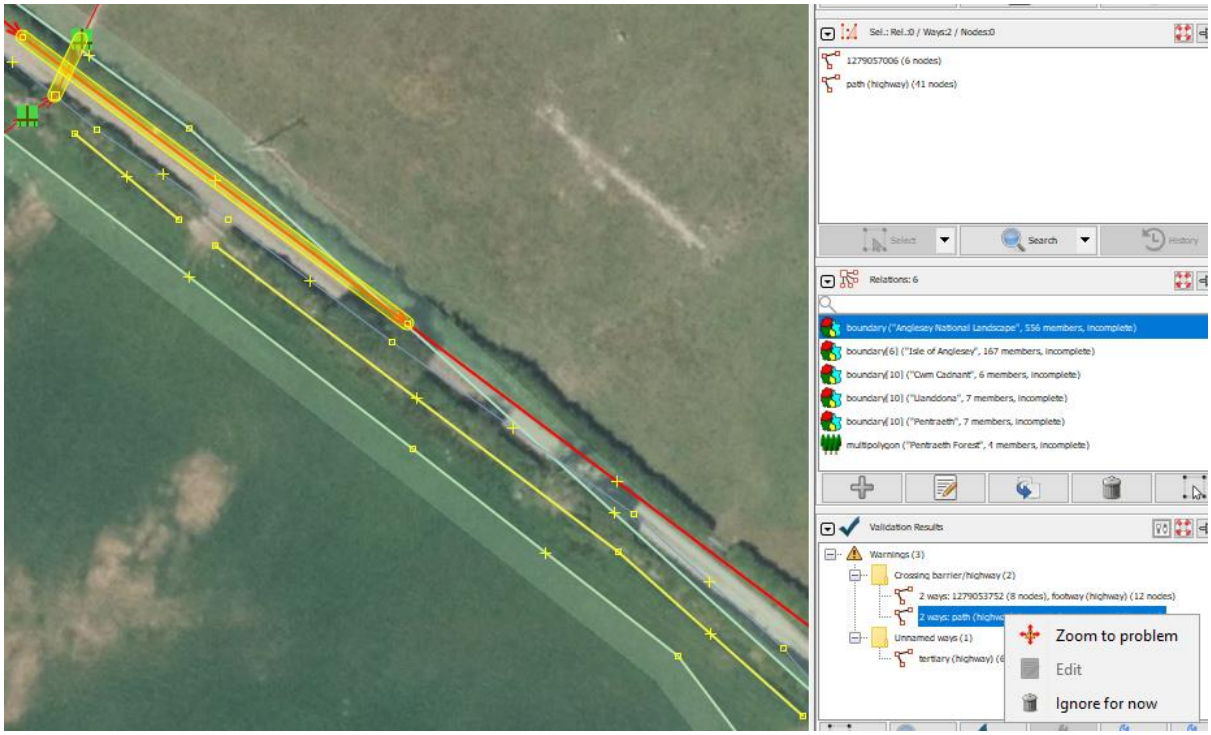
Select the validate tick on the left toolbar to open the Validation Results window. You can then validate the features by clicking the 'Validate' button.



The Validation Results window will show warnings identified by the Validation check. These can be selected to view the type of warning, and the features the warning refers to.



Clicking on each feature highlights it on the map, and by right clicking on the feature you can select **Zoom to problem** to view the feature in more detail.



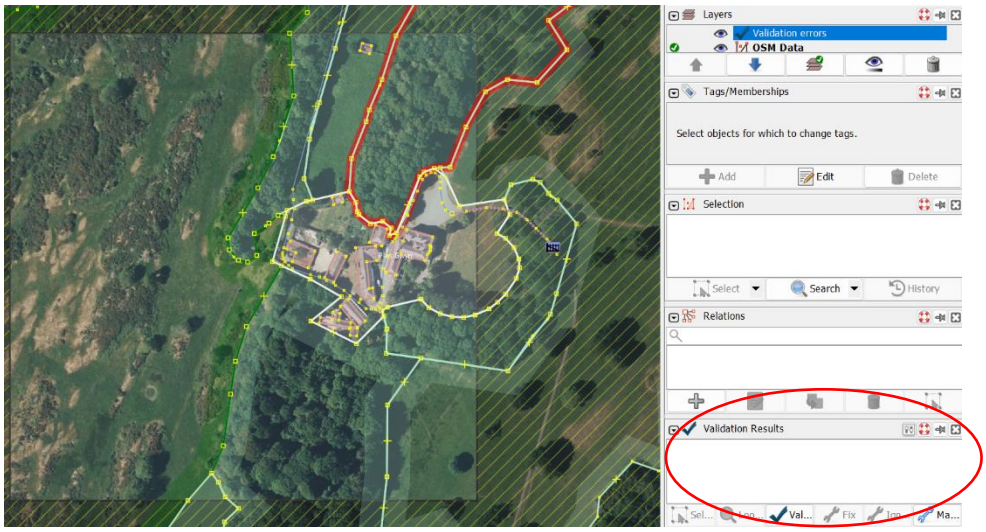
When validating the mapping, specifically look for the common errors described below, along with how to solve them.

Error	Solution
Crossing boundaries	The boundary points can be dragged and moved to resolve the issue.
An 'is_in' tag	You can select 'ignore for now' on these errors.
'unnamed'	These can be left as unresolved, unless you

	have local information available to resolve it.

Generally, we should stick to the following principles for validation:

1. If the JOSM Validate tool says the features in the square are valid (i.e. there are no warnings when you validate the task), then the task is valid and you have move on to Section 6 in this document.



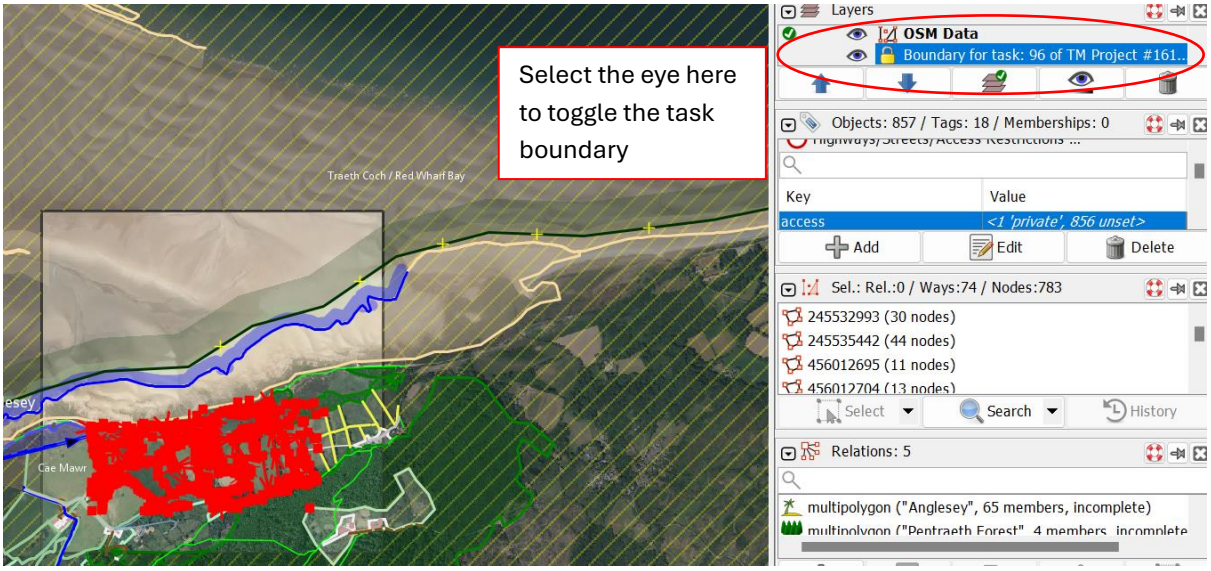
2. If the JOSM Validate tool returns warnings, correct the problems and revalidate until the warnings are removed. Then report the task as valid in the tasking manager and move on.
3. If you cannot validate the square (i.e. warnings are too complex), make a note of the task number in an Excel workbook and write a comment. We can then return to this at a later point.

6. Adding additional features using JOSM

After checking the errors, look over the task area to find any missing buildings or information you think should be added.

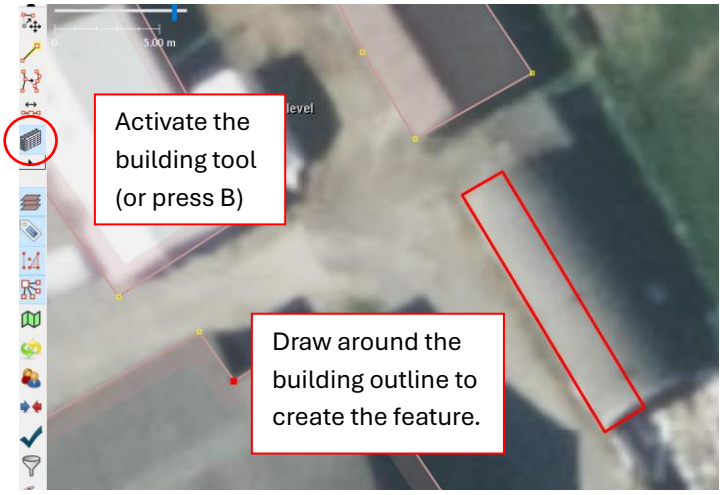
The square that represents the task area can be toggled on and off as a layer at the top right of JOSM to help identify the area you are editing.

Important: Do not edit outside of the area of square for this task.

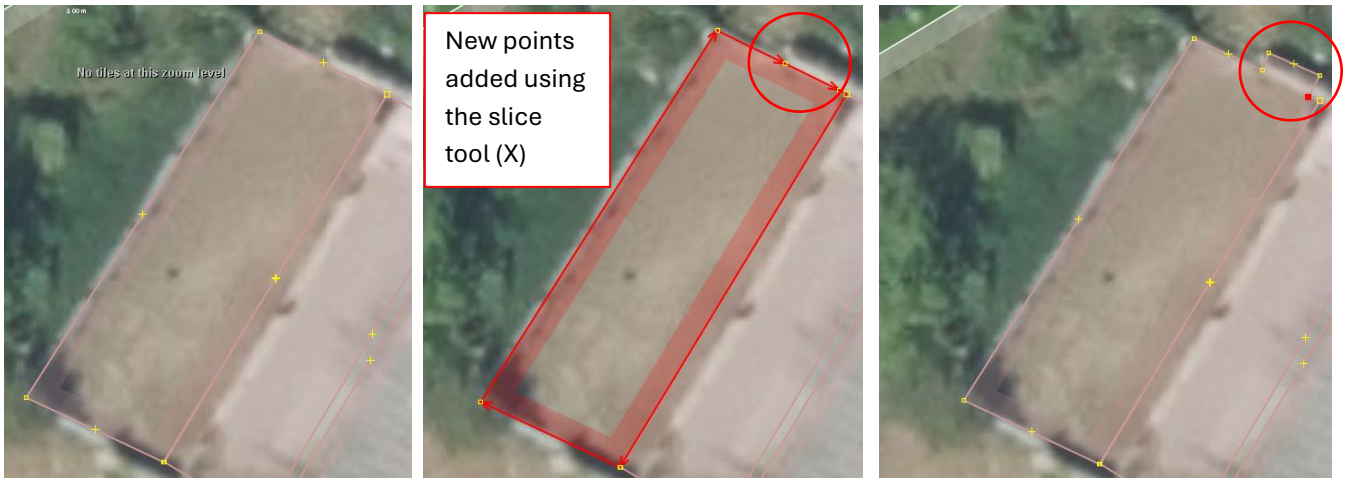


Use the aerial photography to identify features, such as buildings, that need to be added or adjusted. **Note:** It is important to be mindful of how shadows affect the satellite imagery when trying to identify the edges of features.

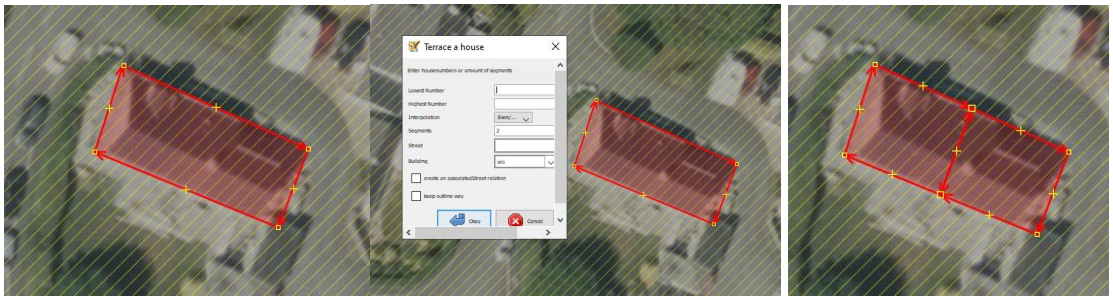
To add a building, press B to select the building tool. This allows squares and rectangles to be created quickly by drawing around building outlines on the aerial photography. Existing boundaries can adjusted be dragging by their edge points.



If you need to extend a building (i.e. where buildings are not perfect squares or rectangles), pressing X activates the slice tool, which then allows you to double click existing buildings to create new points. Press S to activate the Select tool, and you can then drag these points to the correct location to extend a building.

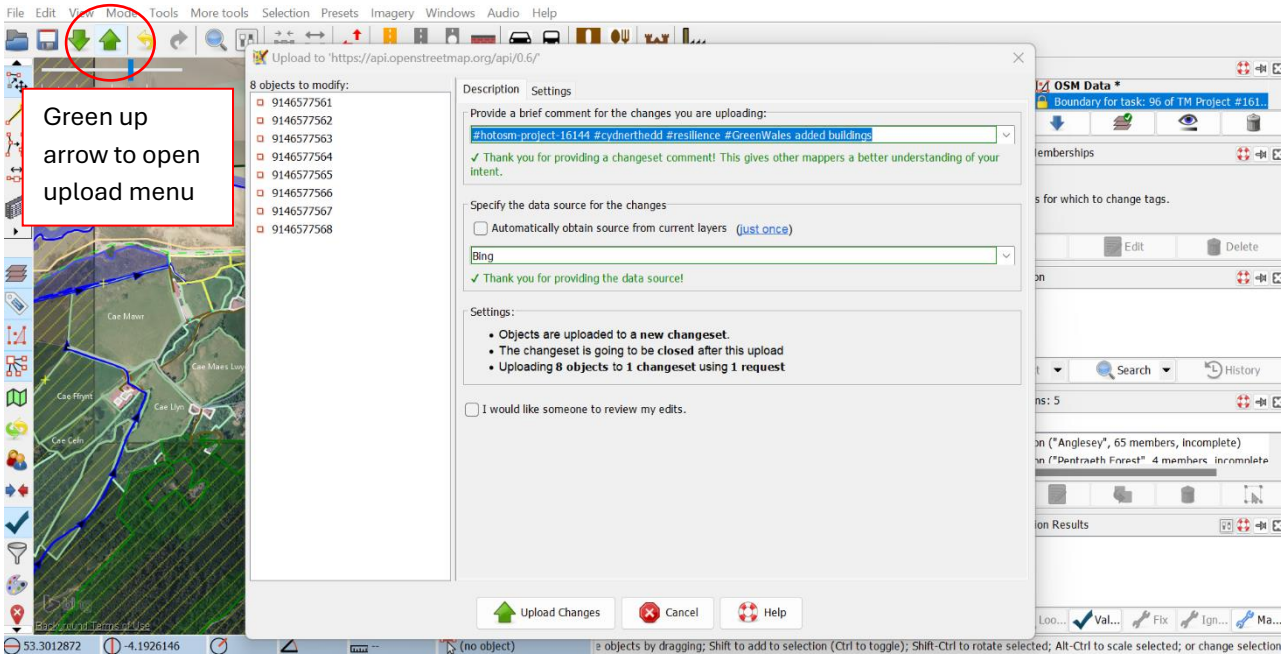


The terrace tool is designed to make it easier to add terraced housing. To use the terrace tool, press S or manually choose the select tool from the toolbar. Click on a building that needs to be terraced to select it. Use shift+T to activate the terrace tool. In the window that appears, enter the number of required divisions under 'segments'. This splits the building into segments, which can be dragged and edited accordingly by using the select tool (S).



When you have made the necessary changes, re-validate the task and check the validation window for errors (see **section 5**). Once you have dealt with any validation errors, you can upload your changes to OSM.

To upload changes made in JOSM back to OSM, select the upload button at the top left (a green up arrow) and then upload from the menu. You may be prompted to authorise the changes to OSM, so accept this where applicable.



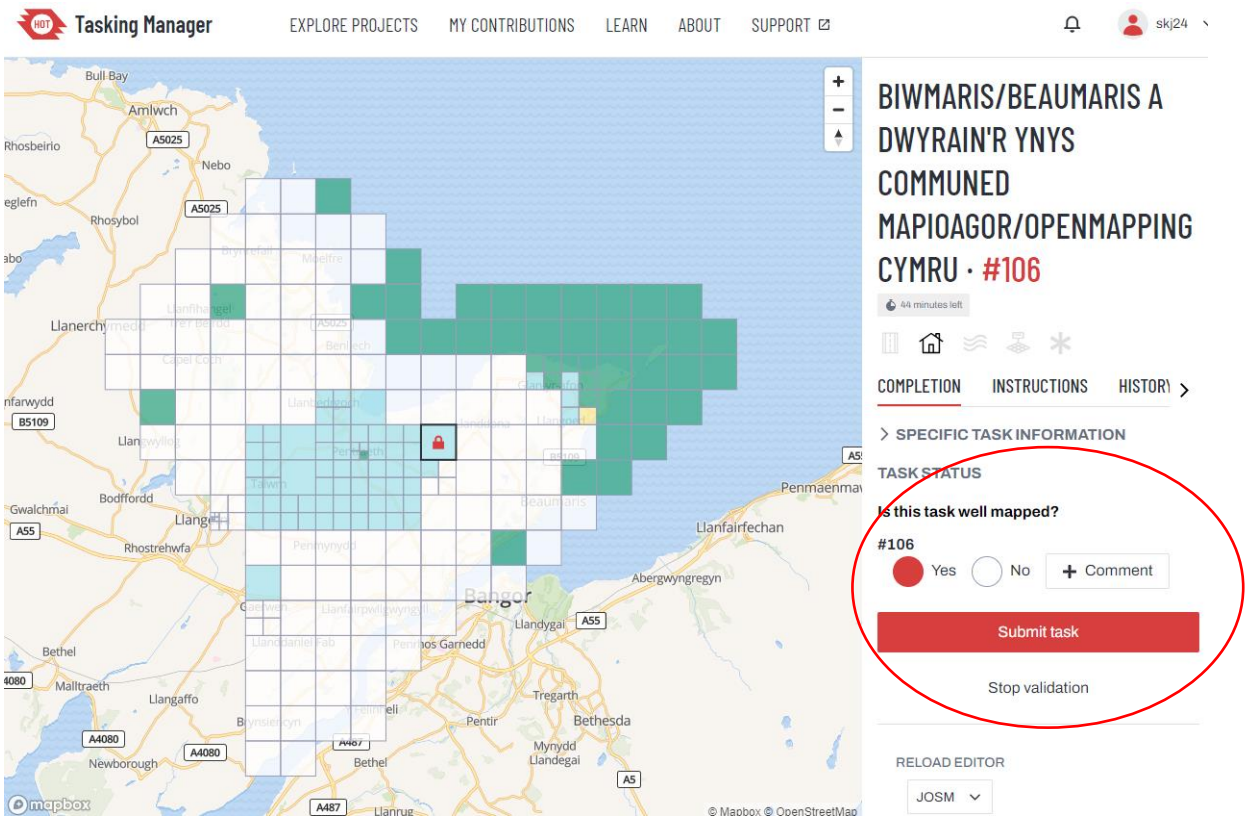
7. Finalising the validation

Once uploaded, return to the task you have been validating in the HOT Tasking manager.

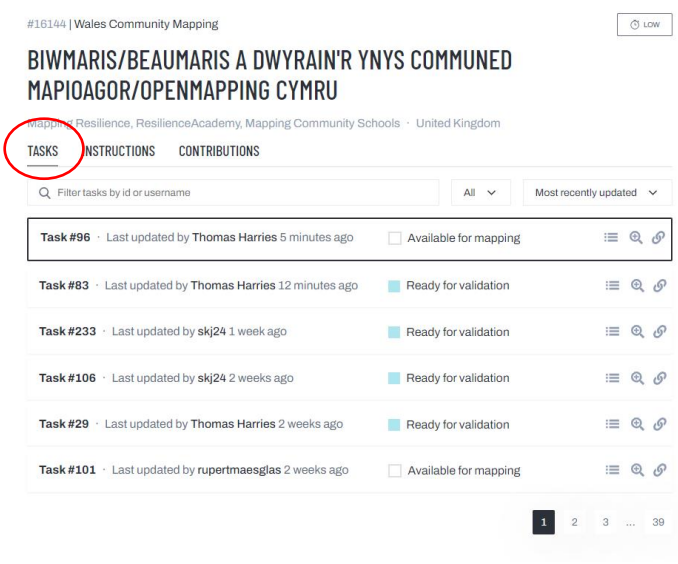
If you are happy they have been mapped well (i.e. you have resolved the validation warnings in JOSM (see section 5), set the response to 'Is the task well mapped?' to 'Yes' and click Submit the task, which flips it green on the HOT map.

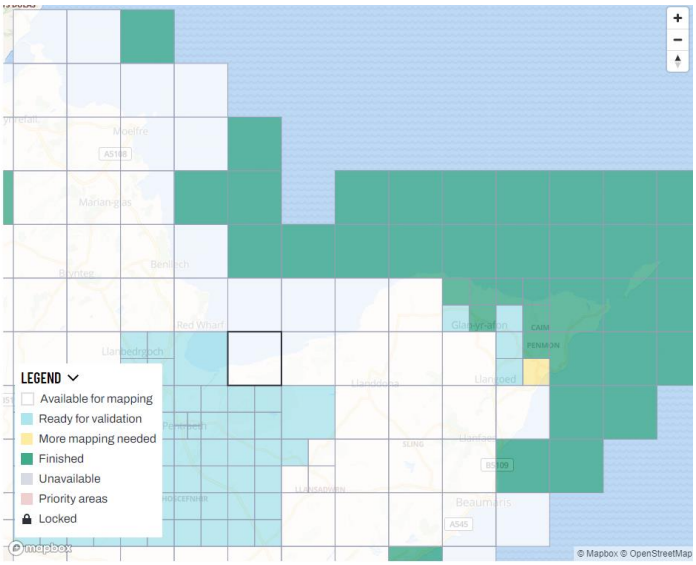
If the task has not been well mapped, select 'No' and add a comment to note any outstanding issues.

Please make a record of this task, along with a comment explaining the outstanding issues, in the accompanying Excel workbook, and we will return to it in the future.



You can check tasks have been validated and finished by viewing the task tab in the project (they all have a unique number)





8. Further information

Below are some additional links to help with the use of JOSM:

- Detailed JOSM tutorials: LearnOSM
- Useful JOSM shortcuts: https://josm.openstreetmap.de/wiki/Shortcuts
- Tutorials spreadsheet: https://docs.google.com/spreadsheets/d/1Grg5AXqxE-XGmjCWbaqqT6_RivYGzW2cc-HmnxN1Npg/edit#gid=0