

Sharing Experiences on the
Implementation of OpenStreetMap for
Humanitarian Purposes in the
Education Sector
through Events



Introduction

OpenStreetMap can be a very useful environment for education in schools, being relevant in geography, mathematics, ecology, community planning, government and information technology (IT). Some teachers use existing OpenStreetMap data in class projects, while others contribute new data to OpenStreetMap.

Students develop their STEM skills, especially the ITC technologies and crowdsourcing collaboration online. At the same time, the students learn:

- to be volunteers, to donate time and knowledge for the benefit of others in need
- to prepare a public presentation and promotion to define the school
- communication skills in an international working environment;
- to demonstrate responsibility, through positive action, regarding cultural heritage, cultural diversity and the local community;
- interdisciplinary competences in a cooperative project.
- to extend the geographical and cultural horizons of students and teachers.

This brochure shares experiences applied in an Erasmus+ project context as good practices to guide teachers that want to introduce OSM in their classes. We chose to show five activities that were organized as events, some with physical presence and some online. The content includes organisational suggestions and also handouts for students and other materials that were used during the event.

- All .pdf or images in this brochure and much more can be found on the wiki pages of the project
https://wiki.openstreetmap.org/wiki/EuYouTH_OSM
- Observe the links at each activity

Hoping you will find the information useful and relevant, we wish you very interesting educational experiences using OpenStreetMap.



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1.1 Mapathon with Doctors without Borders - Saarbrücken

Mapathon von Ärzte ohne Grenzen & OpenSaar e.V. & euYoutH_OSM (BBS Saarburg) - Mi, 29. Mai - 15:00 - 18:00

Ort: Ehemaliges Kultusministerium - Gebäude Pingusson
Straße: Hohenzollernstrasse 60, 66117 Saarbrücken - gegenüber Handwerkskammer
OpenStreetMap: <https://www.openstreetmap.org/?mlat=49.23562&mlon=6.98444#map=17/49.23562/6.98444>
Kontakt: vorstand at opensaar dot de

Mit der Absendung des Formulars willige ich ein, dass meine Daten elektronisch gespeichert werden. Weder OpenSaar noch Ärzte ohne Grenzen werden diese Daten weitergeben. Die Daten dienen lediglich der Vorbereitung der Veranstaltung.

Vorname *

In Saarbrücken, Germany, our students participated in a Mapathon, organised by OpenSaar e. V. in cooperation with Doctors without Borders. Our students were scheduled as helpers, as they had knowledge of Tasking Manager, Java OpenStreetMap Editor (JOSM) and to map with it in the Democratic Republic of Congo.

What do you need to know if you want to run a mapathon? You can find very good instructions [here at Missing Maps \[1\]](#). We have [adapted the checklist \[2\]](#) for German readers.

Organisation *

Ärzte ohne Grenzen
 DRK
 OpenSaar
 euYoutH_OSM BBS Saarburg
 Privat
 Other: _____

OSM - Kenntnisse *

Anfänger
 Ich bin Mapper, kenne JOSM und kann Hilfestellung leisten

OSM - Nickname

In order to be able to roughly estimate the number of participants, the students put an online registration on the internet so that interested people could also register.



The students were again especially prepared with the "How do I work with the Tasking Manager". - see below -

A "Handout" was prepared for the participants of the Mapathon. - see below -

The participants were introduced to the activities with a joint presentation by Médecins Sans Frontières and euYouthH_OSM. - see below -

The event was [featured](#) [3] on local television and in the local press.

The screenshot shows a news article from the website volksfreund.de. The header includes the logo for 'volksfreund' and 'RP ONLINE'. Navigation links for 'REGION', 'BLAULICHT', 'NACHRICHTEN', 'SPORT', 'FOTOS', 'MENÜ', and 'Anmelden' are visible. The main headline reads 'Jugendliche unterstützen Ärzte ohne Grenzen' and 'Berufsschüler helfen Medizinern'. Below the headline is the date '16. Juni 2019 um 16:46 Uhr' and 'Lesedauer: 3 Minuten'. The central image shows three people (two young men and one woman) sitting at a table, looking at a laptop screen together. In the background, a banner for 'European Youth Humanitarian OSM 2018' is visible. Below the image, a caption reads: 'Mitglieder der Organisation Ärzte ohne Grenzen und Schüler haben in Saarbrücken die Demokratische Republik Kongo kartiert. Foto: BBS Saaburg/BBS Saarburg'. A summary text at the bottom states: 'Saarburg. Jugendliche von der Berufsbildenden Schule Saarburg haben die Hilfsorganisation Ärzte ohne Grenzen beim Kartieren der Demokratischen Republik Kongo unterstützt.'

For more information please check the [German wiki page](#) [4].



Links:

- [1] <https://www.missingmaps.org/host/>
- [2] https://wiki.openstreetmap.org/wiki/EuYoutH_OSM/Saarburg#Checkliste_f.C3.BCr_Mapathon
- [3] https://www.volksfreund.de/region/konz-saarburg-hochwald/berufsschueler-helfen-medizinern_aid-39464803
- [4] https://wiki.openstreetmap.org/wiki/EuYoutH_OSM/Saarburg

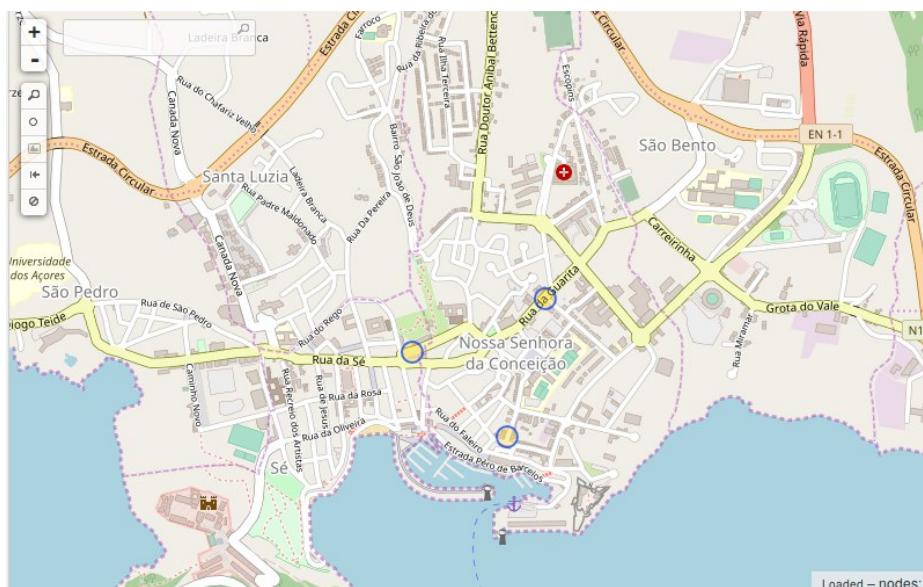
Appendix

- Joint Presentation Doctors Without Borders and euYoutH_OSM - Introduction of the Region in the Democratic Republic of the Congo - What and how to map?
- How do I work with the HOT - Tasking Manager
- Handout - Mapping
- JOSM-Editor

1.2 Outdoor activity Collecting Data - example: Fire hydrants and meeting points - using Field papers

After the presentation and the students' [discussions with the SRPCBA](#) [1] (the Civil Protection in Terceira) representatives, the information emerged that hydrants and meeting points in disaster situations are quite important. From there, the group decided to create a task to check the existing hydrants in the city of Angra do Heroísmo, in OpenstreetMap and, if necessary, map, complement and document the data.

After the visit to SRPCBA, using [Overpass Turbo](#) [2], a web-based data collection tool for OpenStreetMap, the students made a query for Angra do Heroísmo, using "hydrants" as an example.

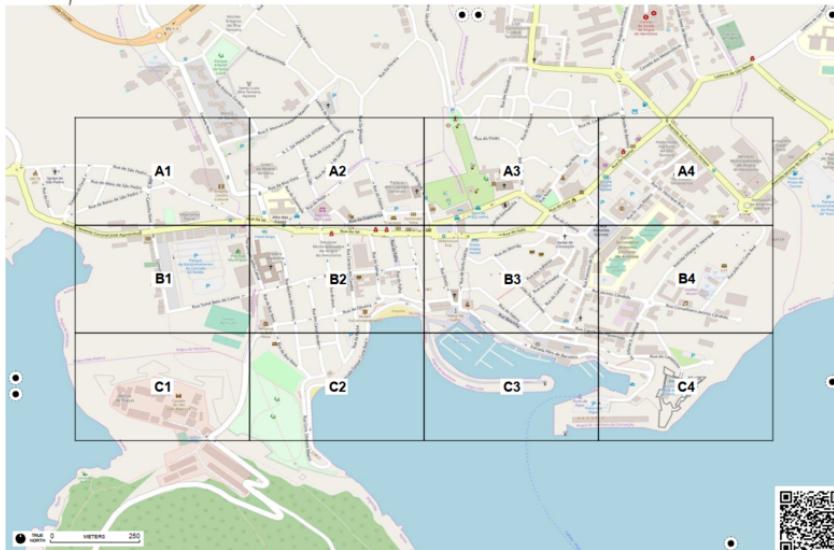


As can be seen, only 3 hydrants are recorded in OpenStreetMap at the time of the query.



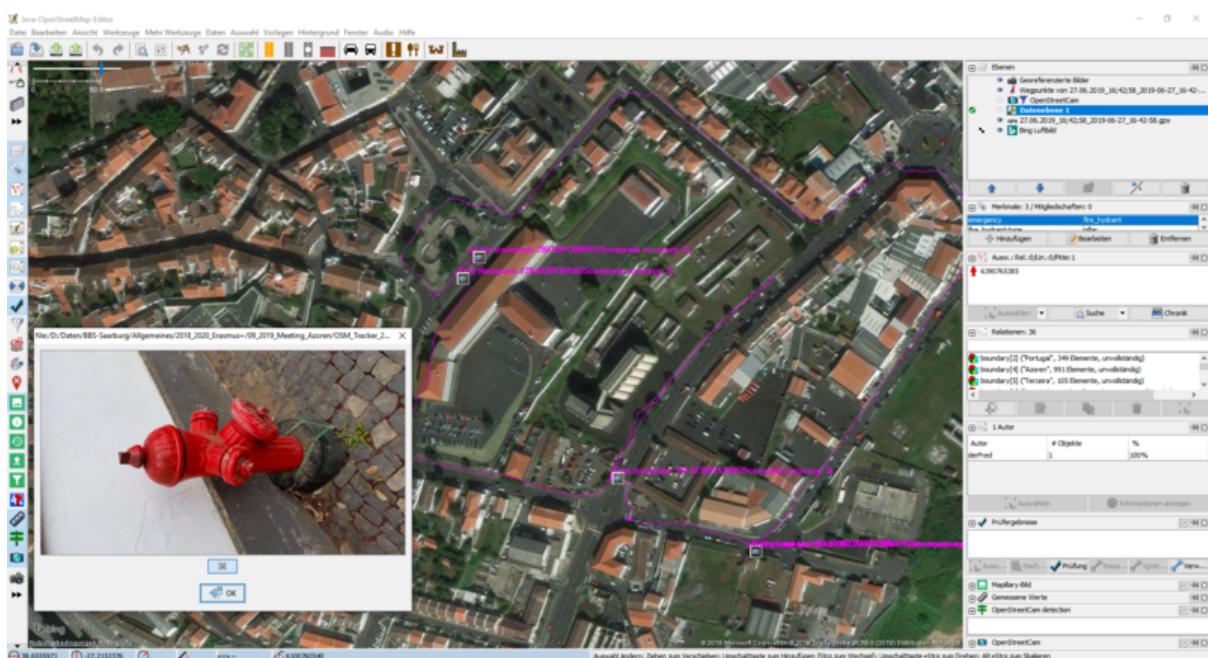
With the help of the "[Field Papers](#)" [3] website, Angra do Heroísmo was divided into a total of 12 areas.

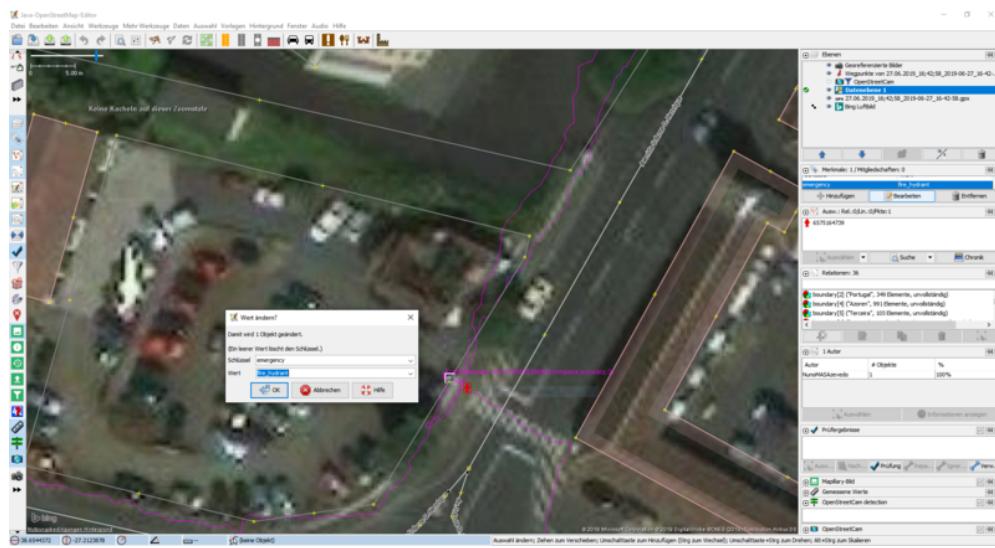
Field Papers



In each area, multinational teams of students and teachers used the [OSMTracker](#) [4] or [Go Map!](#) [5] to map the locations of the fire hydrants.

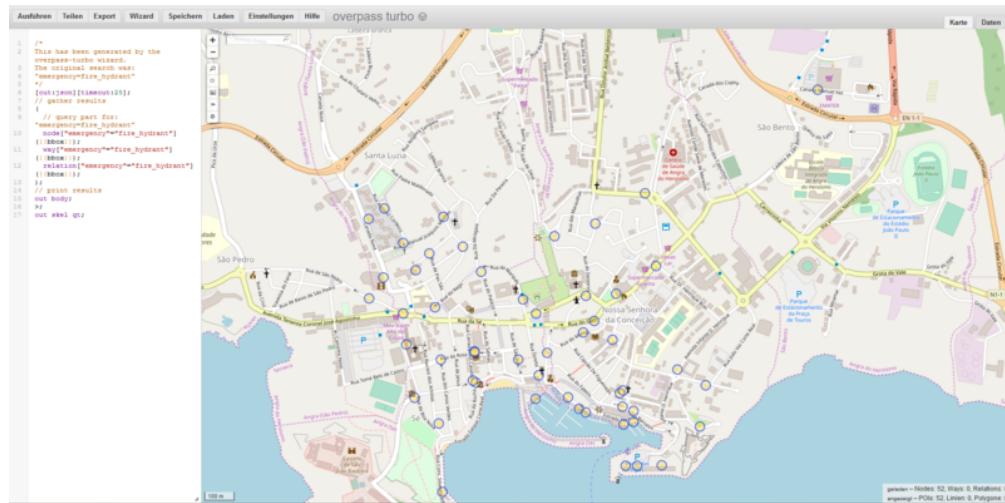
After the locations were collected with OSMTracker or GoMap!, the data were imported (here exemplarily for area B3) into [JOSM](#) [6].



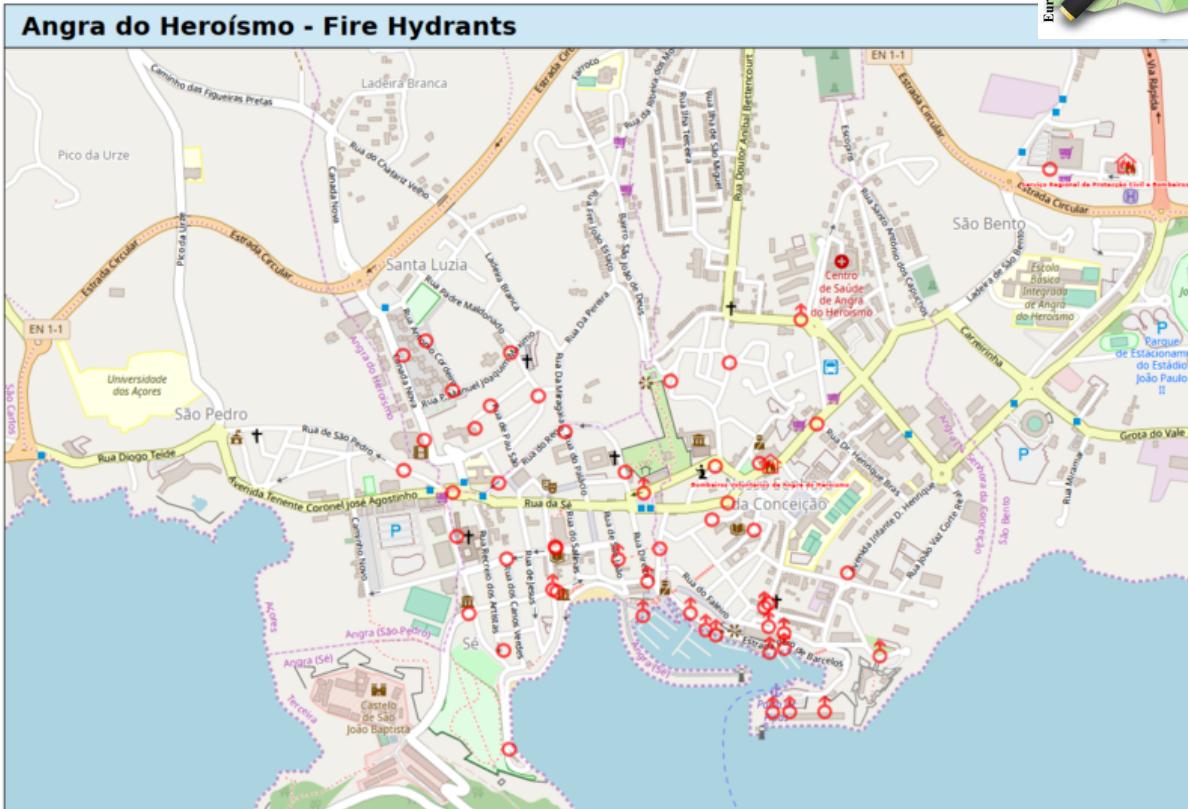


Labeling in
JOSM

After all the data is entered, and after further consultation in Overpass Turbo (<http://overpass-turbo.eu>), the new OSM map will look as follows, with a total of 50 hydrants.



OSM after
mapping



Students documented the location of the hydrants with [MyOSMatic](#) [7].

Other outdoor activities such as collecting images with **Mapillary** in Portmarnock [8], **OpenStreetCam** (now KartaView) in Terceira [9], mapping with drones in Terceira [10] or [mapping the zoo in Heidelberg](#) [11] you can find on our wiki pages.

Links:

- [1] <https://bit.ly/353CzO7>
- [2] <http://overpass-turbo.eu>
- [3] <http://fieldpapers.org/>
- [4] [https://wiki.openstreetmap.org/wiki/OSMTracker_\(Android\)](https://wiki.openstreetmap.org/wiki/OSMTracker_(Android))
- [5] https://wiki.openstreetmap.org/wiki/Go_Map!
- [6] <https://josm.openstreetmap.de/>
- [7] <https://maposmatic.osm-baustelle.de/>
- [8] <https://bit.ly/3g6N8Xd>
- [9] <https://bit.ly/3ggzsri>
- [10] <https://bit.ly/357Hhe2>
- [11] <https://bit.ly/3pQnmdb>



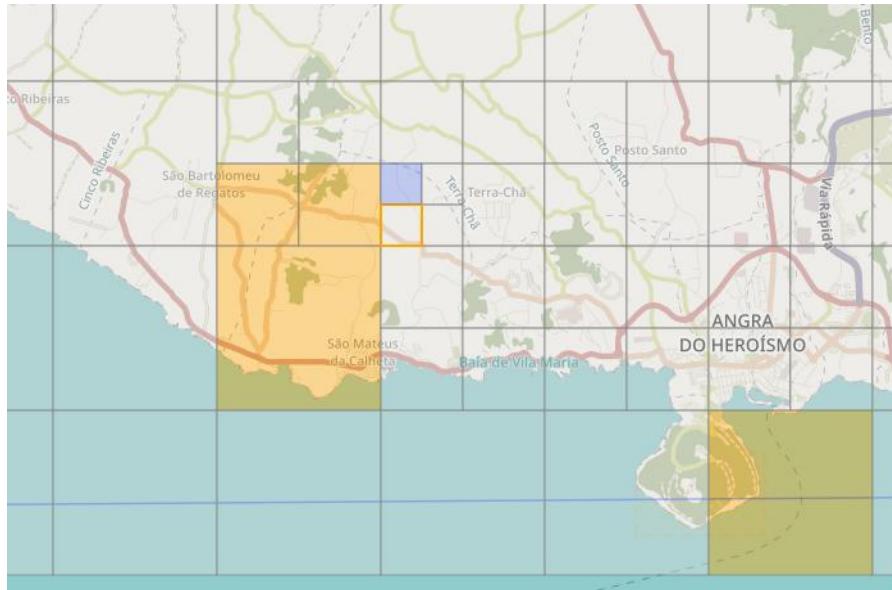
1.3 Continuous work during the whole project on the map of Terceira - mapping all buildings, roads and street names

We mapped in Terceira taking in consideration the real possibility of an earthquake disaster on the island. Taking advice from the Civil Protection in Angra do Heroísmo, we mapped the residential buildings, adding house numbers and street names, fire hydrants and assembly points. <http://taches.francophonelibre.org/project/316> [1]

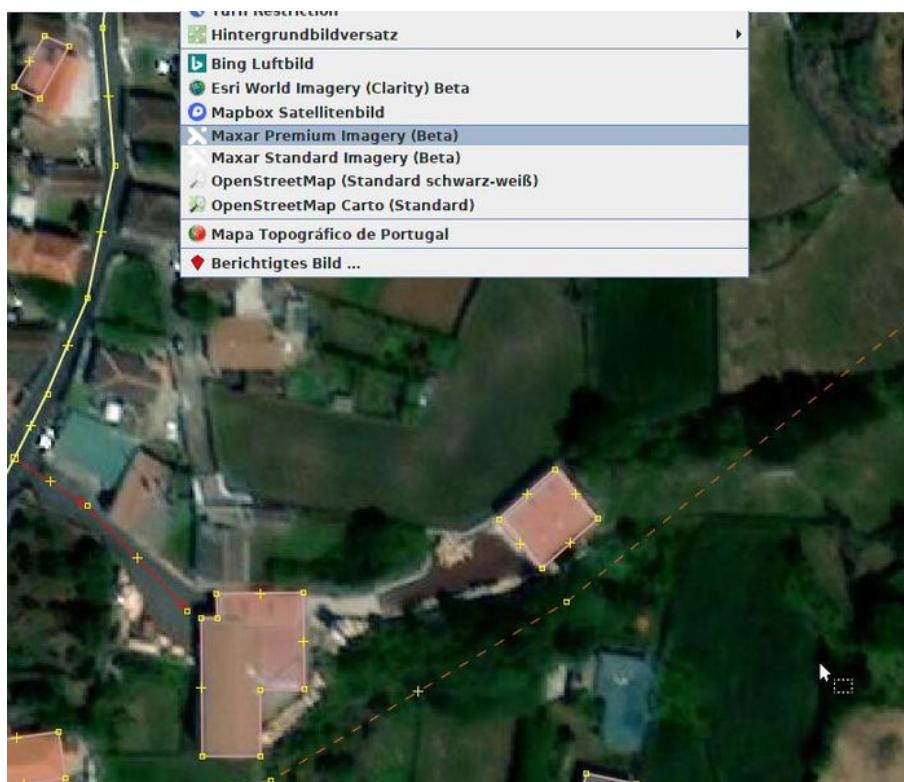
After visiting **Civil Protection** in Angra do Heroísmo, everyone became aware of the importance of mapping houses and streets in preparation for a **possible earthquake** in Terceira.

In order to keep the whole task manageable, we divided the island into **small squares** in the [Tasking Manager](#) [2]



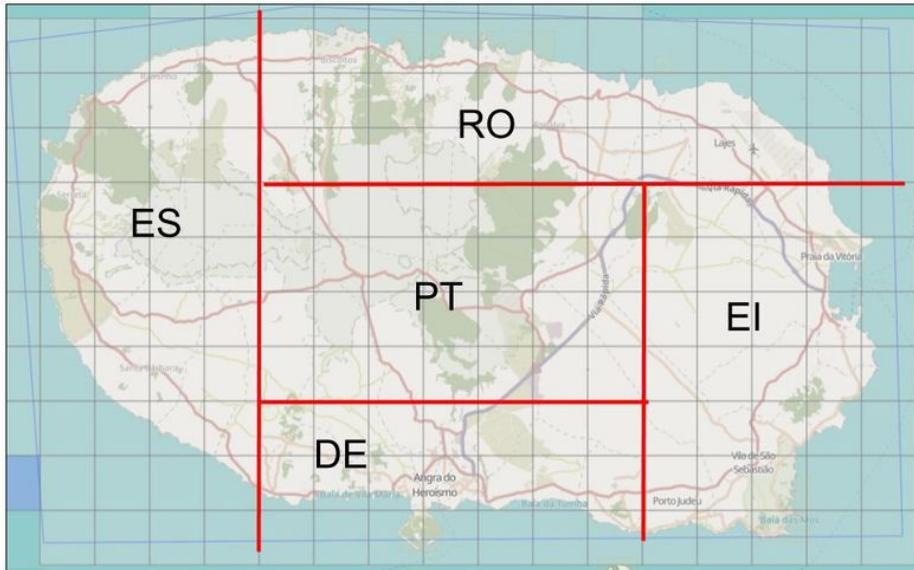


If a task was to be big, it can be splitted.



To know the location of roads and buildings, we used satellite images by Maxar Premium Imagery (Beta).

We shared the work between our partners.



The Portuguese team also has the task of determining the [street name](#) [3] on site and entering it in OpenStreetMap. Therefore we used the qa tool by Simon Poole.



With the end of the project, it can be seen that all houses and streets on the map have been mapped. Furthermore, as you can see in the picture below, about 95 % of the entries in the database have also been checked.

The screenshot shows a task management interface for a humanitarian OpenStreetMap project. The top navigation bar includes links for 'About', 'English', 'derFred', 'Edit', and 'Export'. The main area displays a map of a coastal town with a grid overlay, labeled with various neighborhoods like 'Daios', 'Praia da Vitória', 'Angra do Heroísmo', 'Porto Judeu', and 'Baía da Sajga'. A legend indicates status categories: 'Cur. worked on (0)', 'Invalidate', 'Done', and 'Validated'. A scale bar shows distances in '10 km' and '5 mi'. On the left, a sidebar for 'Task #55' shows a green button to 'Review the work' and a text input field for comments. A message at the bottom states 'Unlocked 7 months ago'.

Links:

- [1] <http://taches.francophonelibre.org/project/316>
- [2] https://wiki.openstreetmap.org/wiki/Tasking_Manager
- [3] <http://qa.poole.ch/?zoom=7&lat=39.15&lon=-27.78>



2.1 Participation Erasmusdays 2020



Between October 15 and 17, 2020 students and teachers of EuYouTH_OSM - European Youth Humanitarian OpenStreetMap, participated in the event #ErasmusDays2020.

The #Erasmusdays is a European initiative to promote the Erasmus+ Programme worldwide and to give visibility to the activities organised by the beneficiaries of this programme.

The Jerónimo Emiliano de Andrade Secondary School participated in the event #ErasmusDays2020 with the realization of activities in the scope of the projects currently being developed at the school. The students of the PROFIJ (Youth Training and Integration Programme) Hotel Technician course participated in an online pre disaster mapping activity of Terceira island, together with their colleagues and teachers from Germany, Spain and Romania. After an initial briefing, in which instructions on the mapping tasks to be performed were given and the Remote Mapping Guide created for this event was analysed, the students and teachers once again contributed to bonding countries and helping in the mapping task in open data systems, done by all and for all.

Erasmus+ European Youth Humanitarian OpenStreetMap

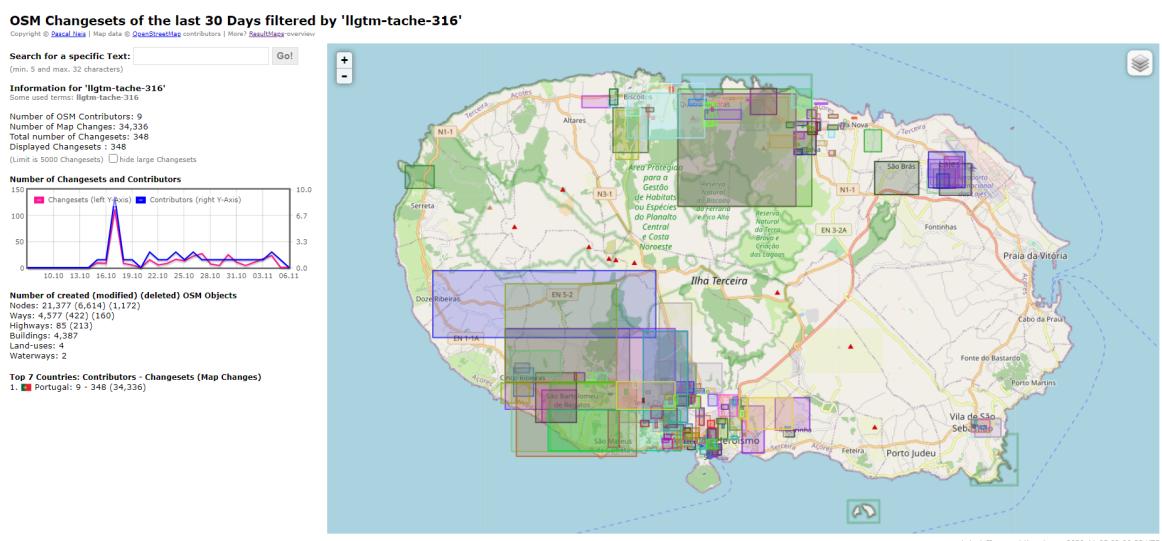


Our mapping activity was [featured](#) [1] in WeeklyOSM #535, and was published in nine different languages.

<ul style="list-style-type: none">Gli studenti di EuYouth_OSM si sono incontrati online per un esercizio congiunto di mappatura utilizzando il Task Manager della FrancophoneLibre.	<ul style="list-style-type: none">Students of EuYouth_OSM met online for a joint mapping exercise using the Task Manager of FrancophoneLibre.
<ul style="list-style-type: none">EuYouth_OSM öğrencilerleri, FrancophoneLibre Görev Yöneticisi'ni kullanarak ortak bir haritalama çalışması yapmak için çevrimiçi olarak bir araya geldi.	<ul style="list-style-type: none">Os alunos do EuYouth_OSM reuniram-se online para um exercício de mapeamento conjunto, utilizando o Gestor de Tarefas da FrancophoneLibre.
<ul style="list-style-type: none">Schülerinnen und Schüler von EuYouth_OSM trafen sich online zu einem gemeinsamen Kartieren und haben dazu den Task Manager von FrancophoneLibre genutzt.	<ul style="list-style-type: none">Студенты объединения EuYouth_OSM устроили совместный онлайн-маппинг, используя менеджер задач FrancophoneLibre.
<ul style="list-style-type: none">Les étudiants de EuYouth_OSM se sont rencontrés en ligne pour un exercice de cartographie en commun en utilisant le gestionnaire de tâches de FrancophoneLibre.	
<ul style="list-style-type: none">Los estudiantes de EuYouth_OSM se reunieron en línea para un ejercicio de mapeo conjunto usando el Administrador de Tareas de FrancophoneLibre.	
<ul style="list-style-type: none">EuYouth_OSMに所属する学生達はFrancophoneLibreのタスクマネージャーを使って合同マッピングを行うためにオンラインミーティングを行いました。	



Mapping activity was also [tracked](#) [2] using the "OSM Changesets" tool which identifies the activity carried out on the map in the last 30 days. This image is a small example of the sustainability of the work on the OSM database.



Erasmus+ European Youth Humanitarian OpenStreetMap



Links:

- [1] https://wiki.openstreetmap.org/wiki/File:WeeklyOSM535_erasmusdays.JPG
- [2] <https://wiki.openstreetmap.org/wiki/File:OSMChangesetsTERCEIRA.png>

Appendix

- ErasmusDays2020 - RemoteMappingGuide



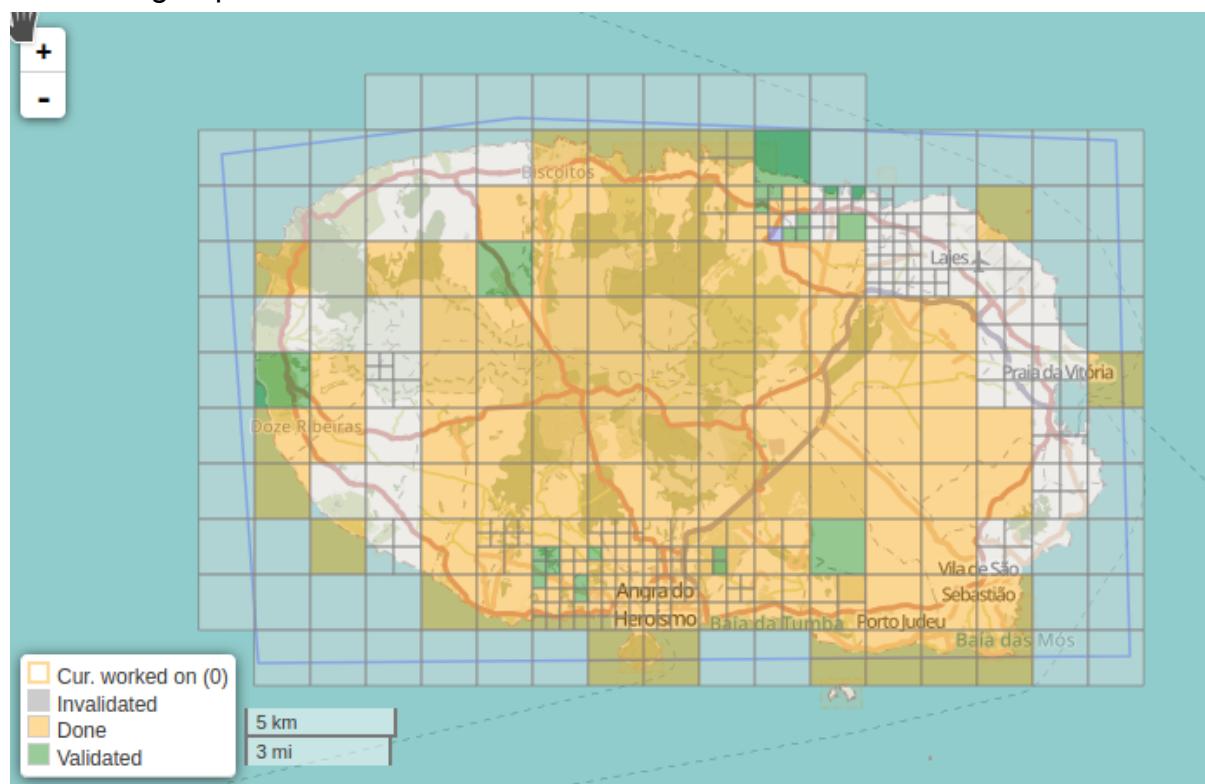
2.2 Participation OSM Geography Awareness Week

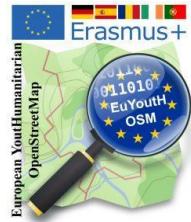


The project presented at the OSM Geography Awareness Week our mapping activity in Terceira and students worked on it to complete the data.

<https://osmgeoweek.org/events/> [1]

We - as a group - continued our tasks in Terceira





During a whole week, all our students had the opportunity to participate - whenever they had time - in the mapping activity.

As there were no fixed dates and students were free to choose the working time, students could book an appointment with a teacher.

OSMgeoWeek						
2020-11-15 until 2020-11-21						
PT	DE/ES	RO	Sunday	Monday	Tuesday	Wednesday
05:00	07:00	08:00	D	D		D
06:00	08:00	09:00	D			
07:00	09:00	10:00	D			
08:00	10:00	11:00	D			
09:00	11:00	12:00	D			
10:00	12:00	13:00	D			
11:00	13:00	14:00				
12:00	14:00	15:00				
13:00	15:00	16:00				
14:00	16:00	17:00				
15:00	17:00	18:00				
16:00	18:00	19:00				
17:00	19:00	20:00				
18:00	20:00	21:00		D		
19:00	21:00	22:00		D		
20:00	22:00	23:00		D		

At each appointment a teacher was present at our BBB-Videoconference offered by OpenSaar e.V.

33 Konferenzen | 0 Aufzeichnungen des Raums

Teilnehmer einladen

<https://openaar.com4us.de/b/man-2mw-uez> Kopieren

Home Room
Letzte Konferenz am September 02, 2020

Erasmus-VG-S2S-K-RP-18-24-047141
Letzte Konferenz am November 11, 2020



Links:

[1] <https://osmgeoweek.org/events/>

Appendix

- OSM Geography Awareness Week 2020 - Participation Guide



2.3.1 Erasmus+ "virtual mobility/activity" with UN - Mapper - Romania Host 2021-02-22 until 2021-02-24

Global peace needs global contribution. The contribution of everybody is important for peace. Therefore, we decided to conduct two virtual mobilities with [UN Mappers](#). [1]

United Nations helps countries torn by conflict create conditions for lasting peace. Peacekeeping, peacebuilding and conflict prevention activities are the main objectives of our mapping activities. There is enormous potential for new technologies to improve the effectiveness of UN peacekeeping missions, as they respond to an ever-growing list of tasks in increasingly complex field environments.

On 15th February we met with two Italian UN Mappers (Michael Montani and Rachele Amerini) to prepare the next Erasmus "virtual" activity, which should happen 22nd until 24th February. We decided that we'll be mapping an area in Central African Republic to help humanitarian teams in the field.



[Watch](#) [2] a 10 minute video of the UN Mappers explaining their work to the steering committee of our project.

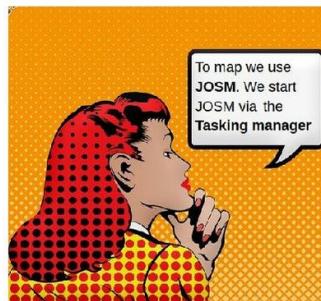
The whole event took place at our BigBlueButton video conference channel, offered by OpenSaar e.V.

All the students we had worked with so far were no longer students of the respective schools. Therefore, new students had to be introduced to humanitarian mapping with new training materials. In doing so, we tried to take local conditions into account.

- The students first had to familiarise themselves with the term "mapathon" and the important tools JOSM and Tasking Manager. They had to record their findings, which they worked out with the help of the OpenStreetMap Wiki, in a worksheet.



<p>Tools to know: JOSM, Tasking Manager, ... mapathon Erasmus+ euYouth OSM and UN mappers</p> <p>© CC BY</p>	
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The [empty worksheet](#) [3] you can find in our wiki and in the appendix.

Questions: What is JOSM? - Powerful or not? Where is its homepage?

JOSM (Java OpenStreetMap Editor) is a desktop application for editing OpenStreetMap.

It is the most powerful out of available editors.

Its homepage is located at josm.openstreetmap.de.

Questions: What is a Tasking manager? Why volunteers use it? What's the purpose of this tool?

The Tasking Manager is the tool for coordination of volunteers and organization of groups to map on OpenStreetMap.

The purpose of the tool is to divide up a mapping job into smaller tasks that can be completed rapidly.

This approach facilitates the distribution of tasks to the various mappers.

Questions: What is a mapathon?

A Mapathon is a coordinated mapping event.

Erasmus+ European Youth Humanitarian OpenStreetMap



- The next step for the students was to sharpen their eye for the meaningful symbols in OpenStreetMap. They had to discover eight different markings on the map (as they are not directly visible in the OSM legend) and name them.

	What we see on the map? How objects are saved in the OSM database? mapathon Erasmus+ euYouth_OSM and UN mappers © CC BY	
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Map of Assié Koumassi - Côte d'Ivoire
<https://www.openstreetmap.org/#map=13/6.7602/-4.2740>



- For each symbol in the table (below), find the point in the map at the top left and enter the corresponding number in the map on the right. Use the link above to get more details from the map if necessary.

2. Write what you see on the map		3. We discover with JOSM how it is represented in OSM
Number	Map	Write here what you see on the map. ⬆️⬆️⬆️⬆️⬆️⬆️⬆️⬆️
1		How it is in the database? We check it with JOSM. We call it a "tag". ¹ highway=tertiary
2		highway=residential

¹ <https://wiki.openstreetmap.org/wiki/Tags>

1/2

- In a second step, the students could then use JOSM to discover the "tags" that cause the corresponding marking on the map.

The complete template and solution can be found in the appendix of this brochure and on our wiki page.

Erasmus+ European Youth Humanitarian OpenStreetMap



This **cheat sheet** was filled by the students before the mapathon.

	<p>Useful tags for our mapathon SOLUTION</p> <p>mapathon Erasmus+ euYouth_OSM and UN mappers</p> <p>© CC BY</p>	
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The screenshot shows the JOSM (Java OpenStreetMap Editor) interface. In the top left, it says "Tags: 1 / Memberships: 0". Below that is a table with two rows. The first row has "Key" and "Value" columns. The second row is empty. At the bottom are buttons for "+ Add", "Edit", and "Delete".

EXAMPLES

we found in "our JOSM-Task" in Santa Barbara, Terceira

OSM-Wiki is your friend

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

Object	Key	Value	Link to our OSM Wiki
Place of residence	landuse	residential	https://wiki.openstreetmap.org/wiki/Tag:landuse%3Dresidential
	place	village	https://wiki.openstreetmap.org/wiki/Key:place#Populated_settlements.2C_urban_and_rural
building	building	yes	https://wiki.openstreetmap.org/wiki/Key:building#Values
waterway	waterway	stream	https://wiki.openstreetmap.org/wiki/Key:waterway
road	highway	residential	https://wiki.openstreetmap.org/wiki/Highways#Classification
powerline	power	line	https://wiki.openstreetmap.org/wiki/Power_lines#keys_and_values

The complete template and solution can be found in the appendix of this brochure and on our wiki page as usual.

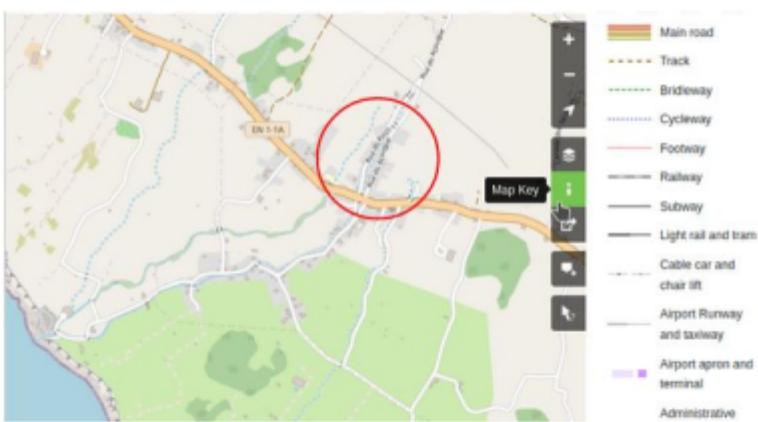


	<p>Mapping JOSM/Tasking Manager we map in Terceira</p> <p>mapathon Erasmus+ euYouTH_OSM and UN mappers</p> <p>© CC BY</p>	 UN Mappers
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We check the region where we have in mind to map

We will map our first building in Santa Barbara, Terceira

1. we open the following link:
<https://www.openstreetmap.org/#map=16/38.6949/-27.3336>



The map shows a lot more as we saw until now.

Therefore - as every map - OSM offers a "legend". For end users they call it "Map key".

You find the "legend", clicking on the 'I'. When you click on it it changes the colour to green.

You know meanwhile, - OSM-wiki is our friend - therefore some links to map features.

all features	https://wiki.openstreetmap.org/wiki/Map_features
landuse	https://wiki.openstreetmap.org/wiki/Map_features#Landuse
rural - agricultural landuse	https://wiki.openstreetmap.org/wiki/Map_features#Common_Landuse_Key_Values_-_Rural_and_agricultural_land

We "draw" our first building.

Step by step:

We look at the region

We open the region via Tasking Manager in JOSM

We check what is done in the region

We check new tags, which are useful for our mapping with UN mappers.

and then ... we draw with the Building_tool a building.

Erasmus+ European Youth Humanitarian OpenStreetMap



The material and the links ;-)	Region to map opened in JOSM via Tasking Manager
<p>Teaching material:</p> <ul style="list-style-type: none"> • Mapping, JOSM and Tasking Manager <p>. Collection of tags for our mapathon:</p> <ul style="list-style-type: none"> • Useful tags for our mapathon, discovered in Santa Barbara <p>.</p> <p>The Link in OpenStreetMap:</p> <ul style="list-style-type: none"> • OSM - Portugal - Terceira - Santa Barbara 	

All explanatory materials - forms and completed solutions were offered to the students on our wiki page.

Very helpful were also the direct links to the tasks to be performed in the Tasking Manager, so that the students were guided to the mapping tasks by a simple click.

This helps to avoid error-prone communication.

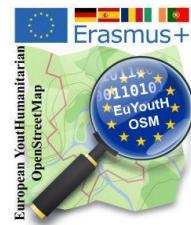
In any case, difficulties are always to be expected with beginners if

1. already mapped objects in JOSM are not congruent with the satellite images and
2. the very first upload to JOSM requires the authentication with OAuh.

For this reason, we have uploaded two step-by-step solutions as worksheets in the wiki, which can be used by students in case they have never dealt with the topic before.

	Adjust_imagery_offset	First_upload
	 Further information and explanations : https://wiki.openstreetmap.org/w/index.php?title=Using_Imagery&oldid=1800000	 Instructions for authenticating the first upload: <ol style="list-style-type: none"> Locate and log in to the UN Humanitarian OpenStreetMap Team (HOT) website. Click on the "Log in" button. Enter your credentials and click "Log in". Once logged in, you will be redirected to the JOSM Tasking Manager. Locate and click on the "First upload" task. Follow the on-screen instructions to complete the upload process.

These files are also in the appendix and on the wiki page.

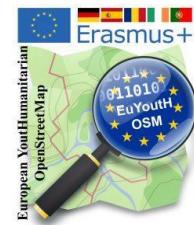


Links:

- [1] https://wiki.openstreetmap.org/wiki/Unite_Maps_Initiative/UN_Mappers
- [2] <https://youtu.be/0z1tsdtMzSM>
- [3] https://wiki.openstreetmap.org/wiki/EuYouth_OSM#Tools_to_know_Using_the_OSM-Wiki

Appendix

- Tools to know for mapping OSM - JOSM - Tasking Manager
- Solution Tools_to_know_for_mapping_OSM - JOSM - Tasking Manager
- What we see on the map? - How objects are saved in the OSM Database?
- Solution What we see on the map? - How objects are saved in the OSM Database?
- Useful tags for our mapathon
- Useful tags for our mapathon - Solution
- Mapping - JOSM/Tasking Manager - we map in Terceira
- Adjust imagery offset
- JOSM - First Upload Authentication



2.3.2 Erasmus+ "virtual mobility/activity" with UN - Mappers

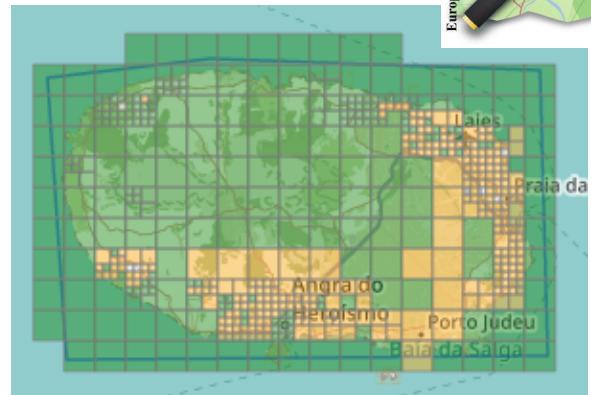
Portugal Host 2021-03-22 until 2021-03-24

This mobility also started with a large number of new students. Since the island of Terceira was not yet completely covered either, we started our preparatory exercises with a mapathon on the island.

Roads and Buildings - our task for Monday [1]	
We shared Terceira between the partners	
how we started	
Before March 22	



Result - After March 22



Michael Montani and **Rachele Amerini** from UN Mappers prepared the Tuesday and Wednesday for our Erasmus "virtual mobility", which happened 23rd until 24th March and we worked/mapped for [Minusma](#) [2], Multidimensional Integrated Stabilization Mission in Mali.

To give the students a feeling for the distances Romania, Azores, Mali we started the second collaboration with UN Mappers with a short [virtual flight](#) [3] via OpenStreetMap.

- 23rd until 24th
 - Something about the region
 - Virtual Erasmus+ mobility from (Râmnicu Vâlcea, Vâlcea, Romania) via Portugal (Angra do Heroísmo, Terceira, Azores, Portugal) to Mali (Ansongo, Ansongo Cercle, Gao)
 - We map in the [region of Gao](#)
 - Something about [recent history](#)
 - Something about the mapping area
 - Situated in the south of the province of Gao
 - We map south of the city of [Ansongo](#)
 - Near border to Burkina Faso and Niger
 - Something about the UN Peacekeeping mission in that region
 - UN MINUSMA [Website](#)
 - UN MINUSMA on [Twitter](#)
 - UN MINUSMA on [Instagram](#)

To further prepare students for "the country and its people" and the activities of the Blue Helmets in Mali, the following links have been added to our wiki page:

- [Mapping region](#) [4]
- [Recent history](#) [5]
- [Mapping area Ansongo](#) [6]
- [Link directly to OSM](#) [7]

and the peacekeeping mission UN MINUSMA
[Website](#) [8]
[Twitter](#) [9]
[Instagram](#) [10]



our students.

The task in which we mapped was - as usual - [linked](#) [11] from our wiki page.

Tasking Manager

KARTIERUNGSPROJEKTE MEINE BEITRÄGE LERNEN INFO

derFred

UNITED NATIONS FOR MALI - SOUTH ANSONGO: ROADS, WATERWAYS AND VILLAGES

Mali

AUFGABEN ANWEISUNGEN BEITRÄGE

General instructions

In this project we will map topographic data, supporting MINUSMA to ensure peace in Mali. The features to add are:

LEGENDE

- Bereit zur Kartierung
- Bereit zur Validierung
- Mehr Kartierung nötig
- Fertig
- Nicht kartierbar
- Gebiete hoher Priorität
- Gesperrt

mapbox

ARTEN DER KARTIERUNG BILDMATERIAL EDITOR

Kartieren Sie eine Aufgabe

Erasmus+ European Youth Humanitarian OpenStreetMap



	Mapping from satellite images in desert areas mapathon EuYouth_OSM and UN mappers(E) CC BY	
---	---	---

Issue #1

<https://tasks.hotosm.org/projects/10563/tasks/?search=78>

Selected features



After the first mapping day, we discussed the mapping problems with the students and produced a handout for the coming day so that the errors identified could be cleaned up and avoided in the future.

As always, you will find these instructions both in this brochure in the appendix and of course on our Wiki page.

Links:

- [1] <http://taches.francophonelibre.org/project/316>
- [2] <https://minusma.unmissions.org/en>
- [3] <https://www.youtube.com/watch?v=GFOeuSnKyng>
- [4] <https://en.wikipedia.org/wiki/Gao>
- [5] https://en.wikipedia.org/wiki/Gao#Recent_history
- [6] <https://en.wikipedia.org/wiki/Ansongo>
- [7] <https://www.openstreetmap.org/?mlat=15.2935&mlon=0.5026#map=10/15.2935/0.5026>
- [8] <https://minusma.unmissions.org/>
- [9] https://twitter.com/UN_MINUSMA
- [10] https://www.instagram.com/un_minusma/
- [11] <https://tasks.hotosm.org/projects/10563/>

Appendix

- Mapping from satellite images in desert areas



Appendix

Mapathon with Doctors without Borders - Saarbrücken

- Joint Presentation Doctors Without Borders and euYouth_OSM - Introduction of the Region - What and howto map? (24)
- How do I work with the HOT - Tasking Manager (3)
- Handout - Mapping Buildings and Places (1)
- JOSM-Editor (1)

MISSING MAPS MAPATHON VON ÄRZTE OHNE GRENZEN

HERZLICH WILLKOMMEN

**zum Mapathon
am 29. Mai 2019**

**Saarbrücken
- ehemalige französische Botschaft**



VORBEREITUNG - registrieren & Editor

Während wir auf die Ankunft weiterer Teilnehmer warten, könnt ihr schon einmal Folgendes tun

- **(1) Registriert euch bei www.openstreetmap.org.**

Folgt dem Link in der E-Mail, die ihr daraufhin bekommt.

- **(2) Editor installieren**

- * <https://josm.openstreetmap.de/>
- * [josm-tested.jar](#) herunterladen

Leonie, Max, Jonas & Dennis helfen ;-)



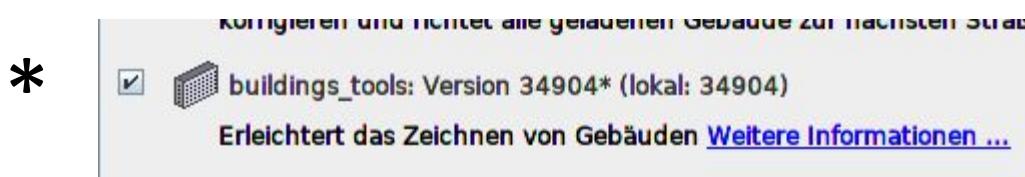
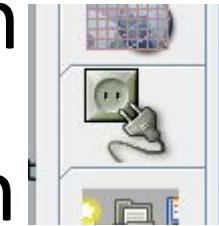
VORBEREITUNG (1) - JOSM Fernsteuerung

- Fernsteuerung einschalten
 - * Bearbeiten - Einstellungen -
 - * Fernsteuerung
 - * Fernsteuerung aktivieren
 - * OK



VORBEREITUNG (2) - JOSM Building Tool

- Plugin Building Tool
 - * Bearbeiten - Einstellungen
 - * verfügbare Erweiterungen



- * OK

WAS IST MAPPEN?

Missing Maps: nothing less than a human genome project for cities

A huge number of the world's most vulnerable human settlements have remained unmapped ... until now. Enter an unprecedented plan to map the world's forgotten places

Gründer von Missing Maps:

(The Guardian)



WARUM MAPPEN?

Ziel eines Mapathons ist es, digitale Karten zu erstellen von bisher nicht kartographierten Regionen!



Medical supplies
+ logistics



Infectious diseases
e.g. Ebola



Vaccination
campaigns



Waterborne diseases
e.g. cholera

Dank dieser
Karten können
HelferInnen
Menschen in
Not erreichen.



Malnutrition



Earthquakes



Hurricanes

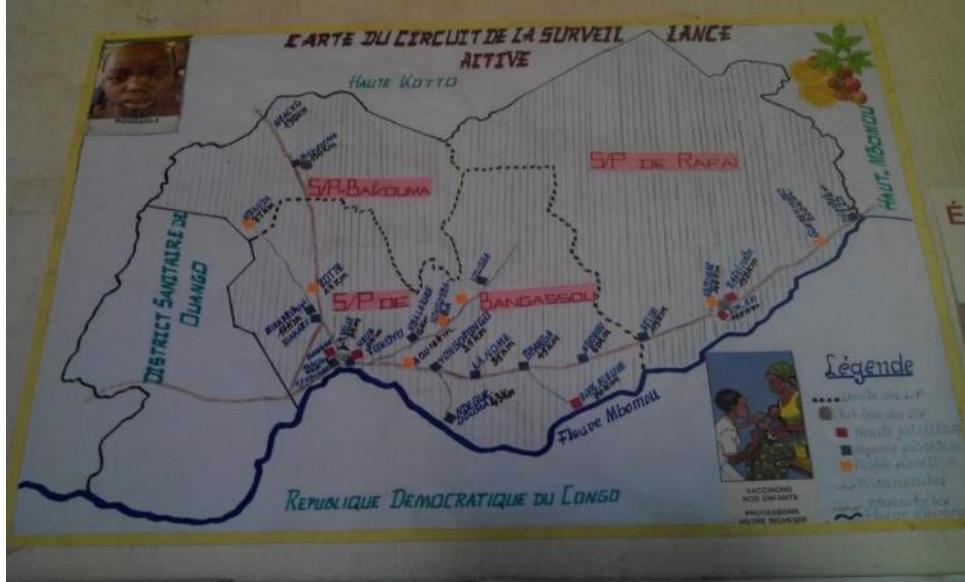


Flooding

WARUM MAPPEN?

Viele Karten mit denen NGOs arbeiten müssen, sind extrem ungenau.

In der Gegend, die ihr auf dem Bild seht, leben ca. 80.000 Menschen ...

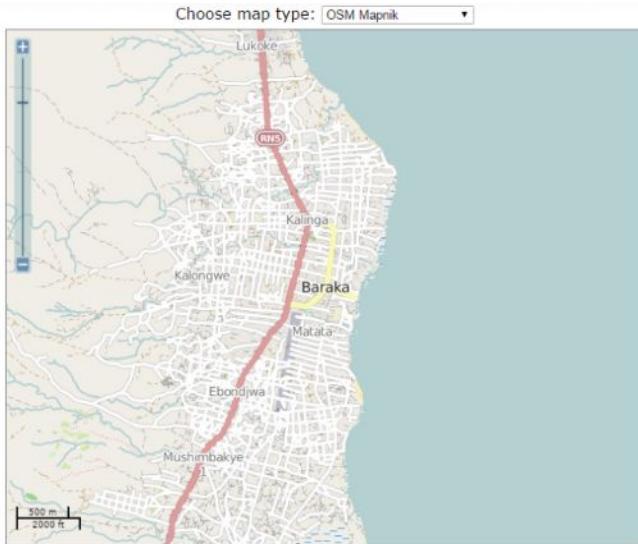
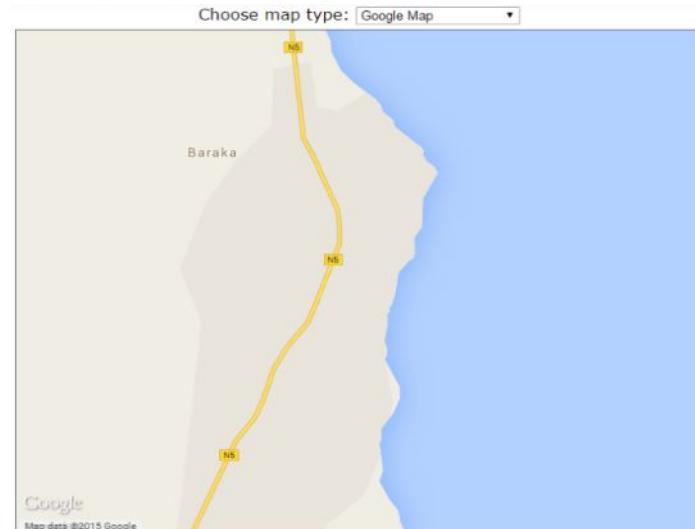


... ihren genauen Standpunkt in einer Notsituation zu bestimmen, ist mit dieser Karte nahezu unmöglich.

MAPPEN HILFT!

Das Vorgehen:

Die Karte zeigt eine Handelsstadt mit 120.000 Einwohnern



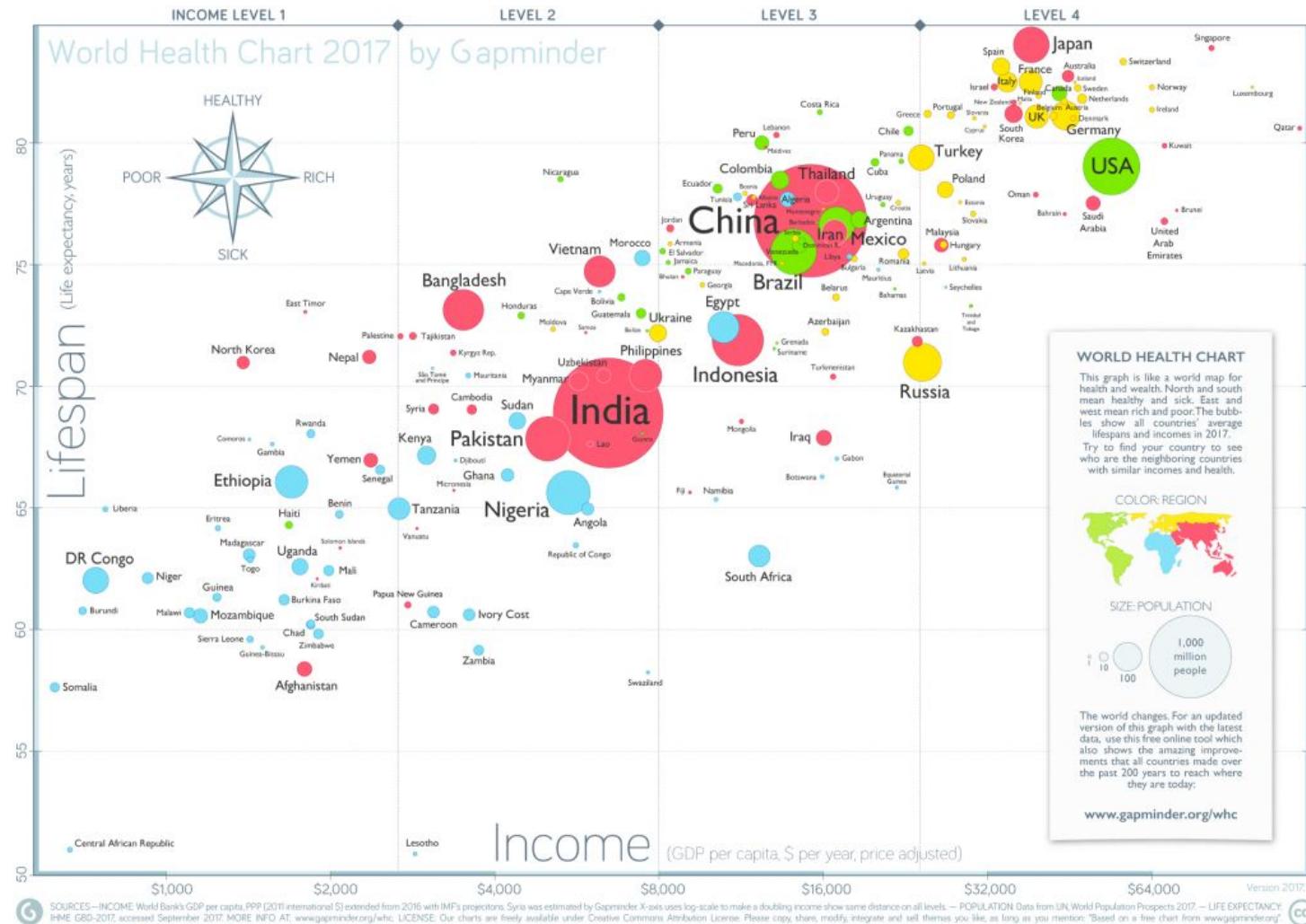
...
nachdem 70 Freiwillige
einen Abend gemappt
haben.



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



Demokratische Republik Kongo



LETZTE TIPPS

- Nutzt **Chrome** oder **Mozilla** zum Mappen.
- Mappt nur die **Gebäude** und **Dörfer**, nicht die Straßen:
 - Ein Dorf definiert sich durch mehr als vier Gebäude.
 - Mehr als vier Gebäude bilden ein Dorf.
 - Wenn ihr euch bei dem Grenzverlauf eines Dorfes nicht sicher seid, zoomt ein Stück heraus.
 - Solltet ihr euch bei irgendetwas nicht sicher sein – fragt und diskutiert mit anderen Mappern.

Gebäude: building=yes
Dorf: landuse=residential

LETZTE TIPPS

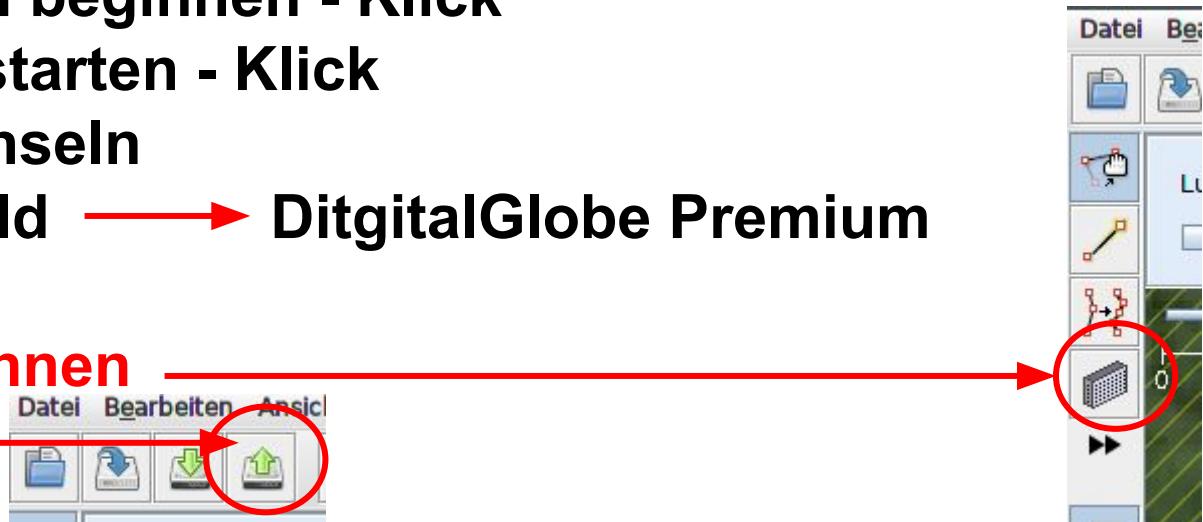
- Um ein **Dorf** zu umschließen, müssen Start- und Endpunkt der Grenzlinie genau aufeinanderliegen.
- Die Linien, die ihr zieht, können Straßen, Gebäude u.ä. kreuzen. Sie sollten jedoch **keine Punkte mit einem anderen Objekt, gemeinsam haben.**
- Wenn ein Dorf (landuse=residential) über euer ausgewähltes Quadrat hinaus geht, zieht die Linie nur ein wenig darüber hinaus. Der Mapper des anliegenden Quadrats nimmt die Linie auf und kann es vervollständigen und auch den Tag vergeben

Los geht's

- JOSM starten
- Chrome oder Mozilla öffnen
- <https://tasks.hotosm.org/>
- Projekt **5912**

„TM“ - Häuser

1. Kachel auswählen
2. Kartografieren beginnen - Klick
3. JOSM Editor starten - Klick
4. zu JOSM wechseln
5. Hintergrundbild → DigitalGlobe Premium
6. Gebäude zeichnen
7. hoch laden
8. fertig



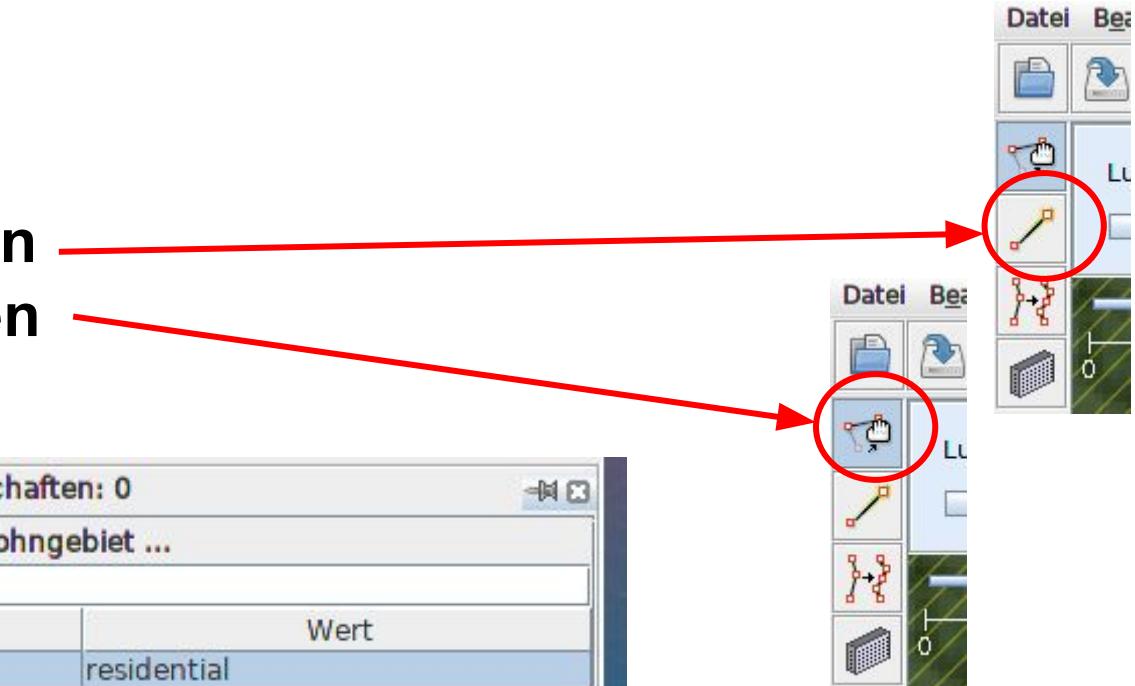
Dörfer

Dorf mappen

1. Umriss zeichnen
2. Umriss anfassen
3. Tag vergeben



4. hochladen
5. fertig



HILFE BEIM LESEN VON SATELITENBILDERN

- Links:

https://docs.google.com/presentation/d/1N_3G3EwYQjtJ_5c9FrbPMY7W7QjILqGeZvDID8tH4Kw/edit#slide=id.g359154f142_0_7

https://wiki.openstreetmap.org/wiki/User:Bgirardot/West_African_HOT_Mapping_Tips#Surface_Mines



VIELEN DANK UND VIEL SPASS!

Ärzte ohne Grenzen

Am Köllnischen Park 1
10179 Berlin

www.aerzte-ohne-grenzen.de

030 7001300
office@berlin.msf.org



How do I work with the HOT - Tasking Manager?

(Results of online training with a "Student named Max")

1. Start **JOSM**
2. Open <https://tasks.hotosm.org/>
3. Click **Start Mapping**
4. Your screen should now look like this:

The screenshot shows the HOT Tasking Manager interface in Grid view. On the left, there are search filters for 'Search', 'Include archived projects', 'Mapping difficulty' (set to All), and 'Organisation' (set to All). Two tasks are listed:

- #5973 Cyclone Idai, Validation of #5879 & 5885: Buildings, Roads and Waterways**
Priority: URGENT
VALIDATION ONLY PROJECT
HOT has activated to support the disaster response operations of several Missing Maps partners responding to the impact of Cyclone Idai in Mozambique. This project is to validate initial mapping in the area including and su...
Organization: Missing Maps
Campaign: Cyclone Idai
Level: INTERMEDIATE
100% Mapped 79% Validated
- #5968 Cyclone Idai, Mozambique: Buzi Roads and Waterways**
Priority: URGENT
HOT has activated to support the disaster response operations of several Missing Maps partners responding to the impact of Cyclone Idai in Mozambique. This project is to digitize roads and waterways in the area including and surrounding Buzi.
Organization: Missing Maps
Campaign: Cyclone Idai
Level: INTERMEDIATE
10% Mapped 0% Validated 6

5. **Teacher:** Now you see two tasks = two tasks ... you can scroll, then you find more. But now we take the number #5968 - Do you have an idea why this one and not the 5973?
Student: The #5973 is 100% mapped and the #5968 only 10% **Teacher:** Very good!
6. So please click on #5968 (This fits for Max, because he is already an intermediate mapper. ;-))

The screenshot shows the search filters on the left side of the HOT Tasking Manager interface:

- Mapping difficulty:** Beginner
- Organisation:** Médecins Sans Frontières
- Campaign:** All

Note: - when selecting a task you should make sure that there are different levels (BEGINNER, INTERMEDIATE, etc.)

You can even choose what you want to map. See the pull-down menus on the left.

7. Now scroll down ... and what do you see there?
8. **Student says:** "The map where you can see in which area exactly in this area was mapped and what not yet".
9. **Teacher:** Very well spotted, Max! - we know that from the other Tasking Manager. OK?

Instructions

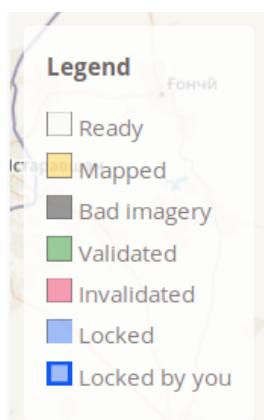
Entities to map
Roads & Waterways

Changeset Comment
#tm-project-5968 #MissingMaps #CycloneIdai #Mozambique Improving Road & Waterways Networks #studdesktiburg20190506

Project Specific Mapping Notes

Bing appears to be the best imagery for the area, you may need to align it with GPS

ACTIVITY AND STATS



Note. The colours of the tiles are exactly the same as we already know them from <http://taches.francophonelibre.org/>.

Ready
Mapped
Bad picture
Validate
unaudited
locked
locked by you

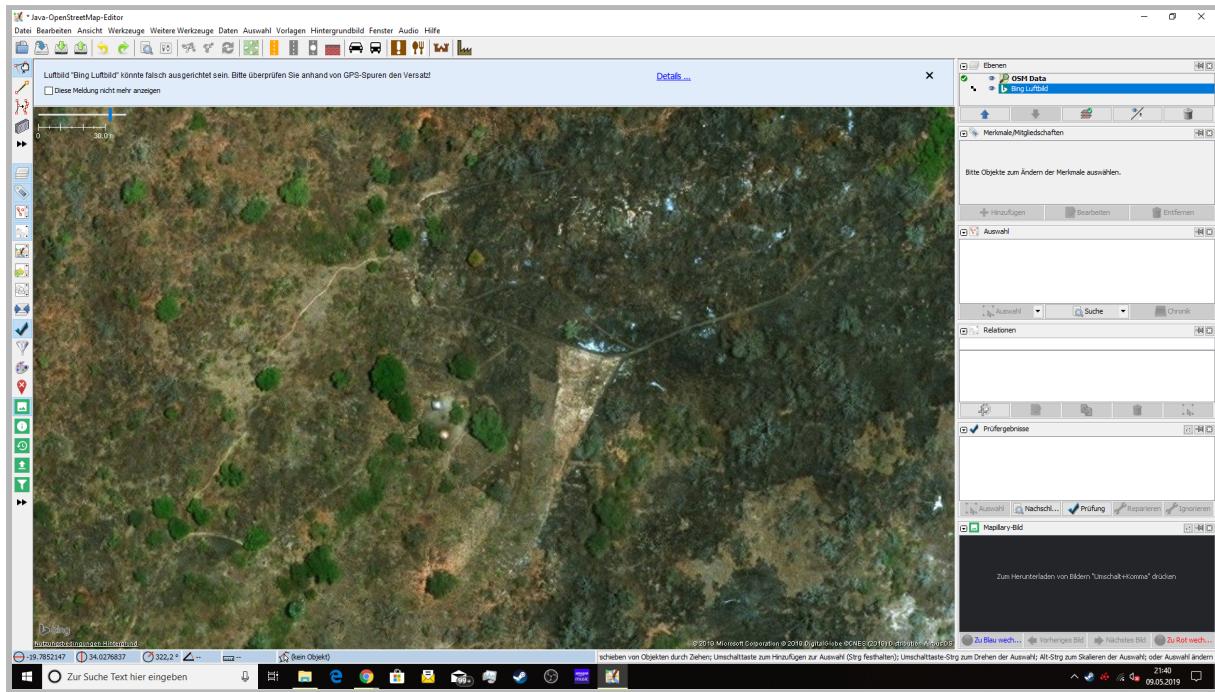
10. Now we choose - exactly as we already know it, but first read the instructions on the left (what to map!). Namely what? Exactly - roads and waterways
11. <https://wiki.openstreetmap.org/wiki/DE:Highways> und <https://wiki.openstreetmap.org/wiki/DE:Waterways>
12. So select a box now ... and get started;-)
13. Aha - you can't get started, on the left you see: Login ;-) ... please have a look at the top right ;-)

On the left we still see the **instructions** what exactly is to be mapped.

If you actually take the #5968, then there is something about "pictures, roads and waterways". You can find the translation of this text in the appendix. ;-)

For every other task there are different texts.
These texts can easily be translated with deepl.com.

Student: - Hello, are these streets?



Teacher: Yes, these are streets ... clearly and you give them the tag "highway=unclassified"
Remember, this is Africa. Roads sometimes look different. :) You see houses there too!

Student: Okay thanks and if they just stop or you can't see the way anymore then I just do the points until you can see the streets or?
and the houses I should also draw them because there was nothing about it in the instructions.
If you see houses that aren't mapped yet, put them in.

Teacher: exactly, unless you see another street nearby, then connect - because people won't just go to one place - or drive and then don't go on to the next street. ;-)

14. upload and finish JOSM - with **#5968 - Cyclone Idai, Mozambique: Buzi Roads and Waterways**. Exactly this marking we find again in OSM ;-)

15. on the Tasking-Manager page ... now still ... **STOP Mapping**, so that the area is released again for other mappers. ;-)

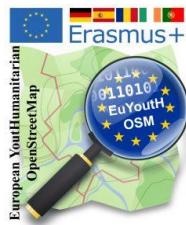
Tip: You can use Markdown. (HTML is not allowed)

PREVIEW

@ STOP MAPPING

✓ MARK AS COMPLETELY MAPPED

**AND TOMORROW
EXPERIENCE the WHOLE again
OK?**



Anleitung zur Benutzung von JOSM anlässlich
des Mapathons von „Ärzte ohne Grenzen“ und „OpenSaar e.V.“
begleitet von Schüler*innen des Erasmus+ Projektes **euYouTH_OSM**
der GSS-BBS Saarburg

„Häuser“ mit Plugin und „Dörfer“ mit Vergabe von TAGs

„TM“ - Häuser

1. Kachel auswählen
2. Kartografieren beginnen - Klick
3. JOSM Editor starten - Klick
4. zu JOSM wechseln
5. Hintergrundbild → DigitalGlobe Premium
6. Gebäude zeichnen
7. hoch laden
8. fertig



Dörfer

- Dorf mappen**
1. Umriss zeichnen
 2. Umriss anfassen
 3. Tag vergeben

Merkmale: 1 / Mitgliedschaften: 0	
<input checked="" type="checkbox"/> Geografie/Landnutzung/Wohngebiet ...	
Schlüssel	Wert
landuse	residential
<input type="button" value="Hinzufügen"/> <input type="button" value="Bearbeiten"/> <input type="button" value="Entfernen"/>	



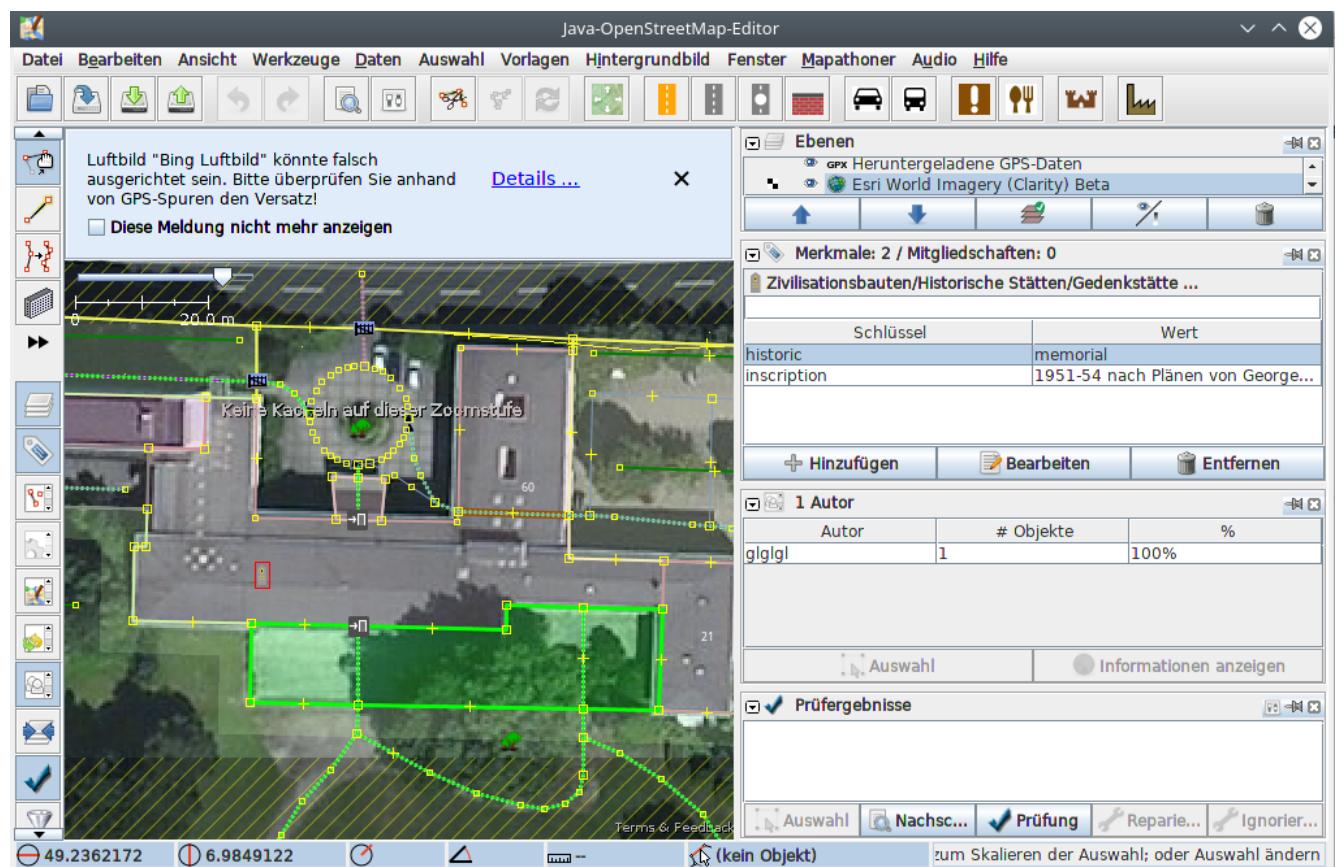
4. hochladen
5. fertig





Anleitung zur Benutzung von JOSM anlässlich
des Mapathons von „Ärzte ohne Grenzen“ und „OpenSaar e.V.“
begleitet von Schüler*innen des Erasmus+ Projektes **euYouTH_OSM**
der GSS-BBS Saarburg

JOSM - der Editor





Appendix

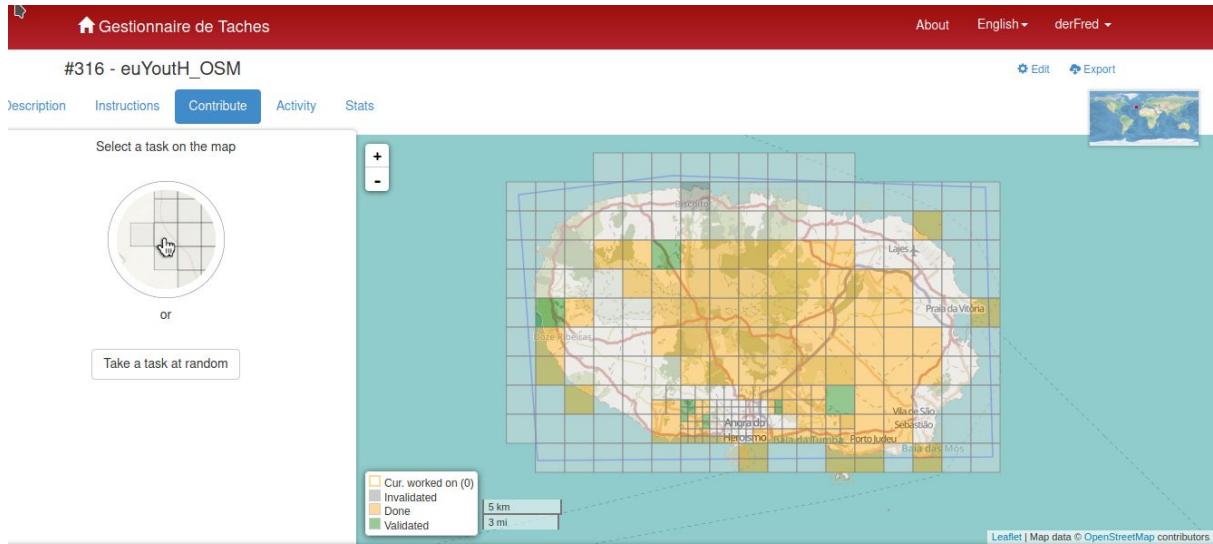
Participation Erasmusdays 2020

- ErasmusDays2020 - RemoteMappingGuide (4)

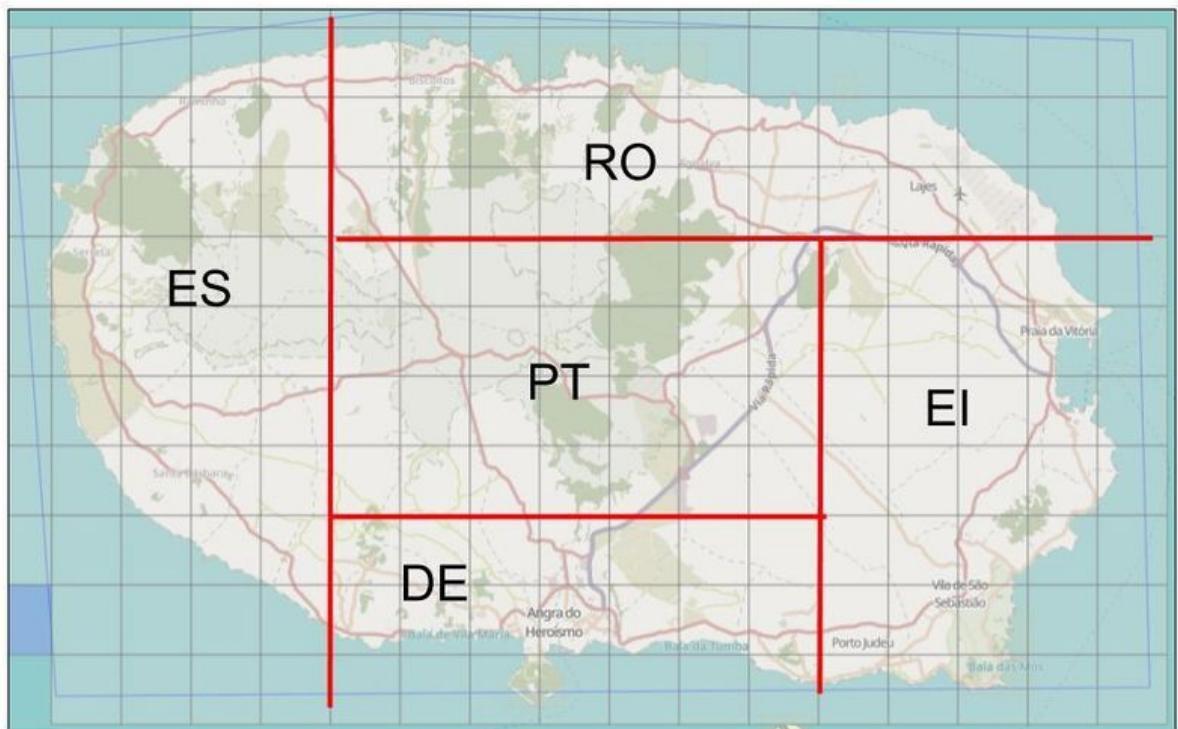
Erasmus Days 2020 - Remote Mapping

1. Start JOSM
2. Open in your Browser our tasking Manager:
<http://taches.francophonelibre.org/project/316>

Your screen should now look like this:



3. Depending from your country



4. please click on one of the squares (the blue one is selected)

The screenshot shows the 'Gestionnaire de Taches' interface for task #316. The map area is overlaid with a 4x4 grid. The legend indicates the following colors:

- Yellow: Cur. worked on (0)
- Light Blue: Invalidated
- Orange: Done
- Green: Validated

The map includes labels for São Mateus, Ladeira dos Pimpões, Terra-Chá, and various roads like EN6-2A and EN6-2B.

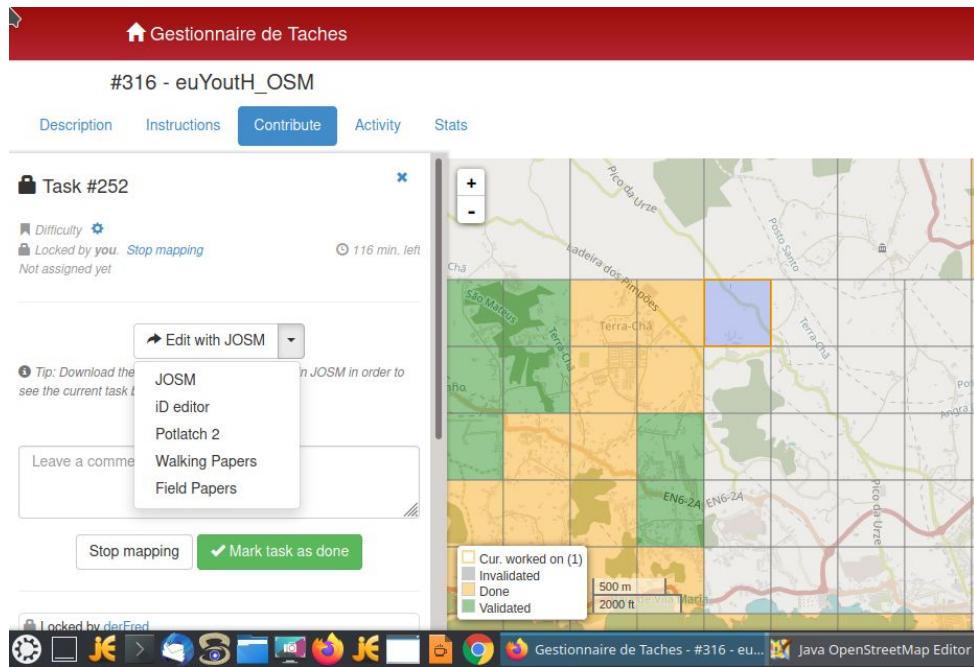
5. Click **Start mapping**

The screenshot shows the 'Gestionnaire de Taches' interface for task #316. The map area is overlaid with a 4x4 grid. The legend indicates the following colors:

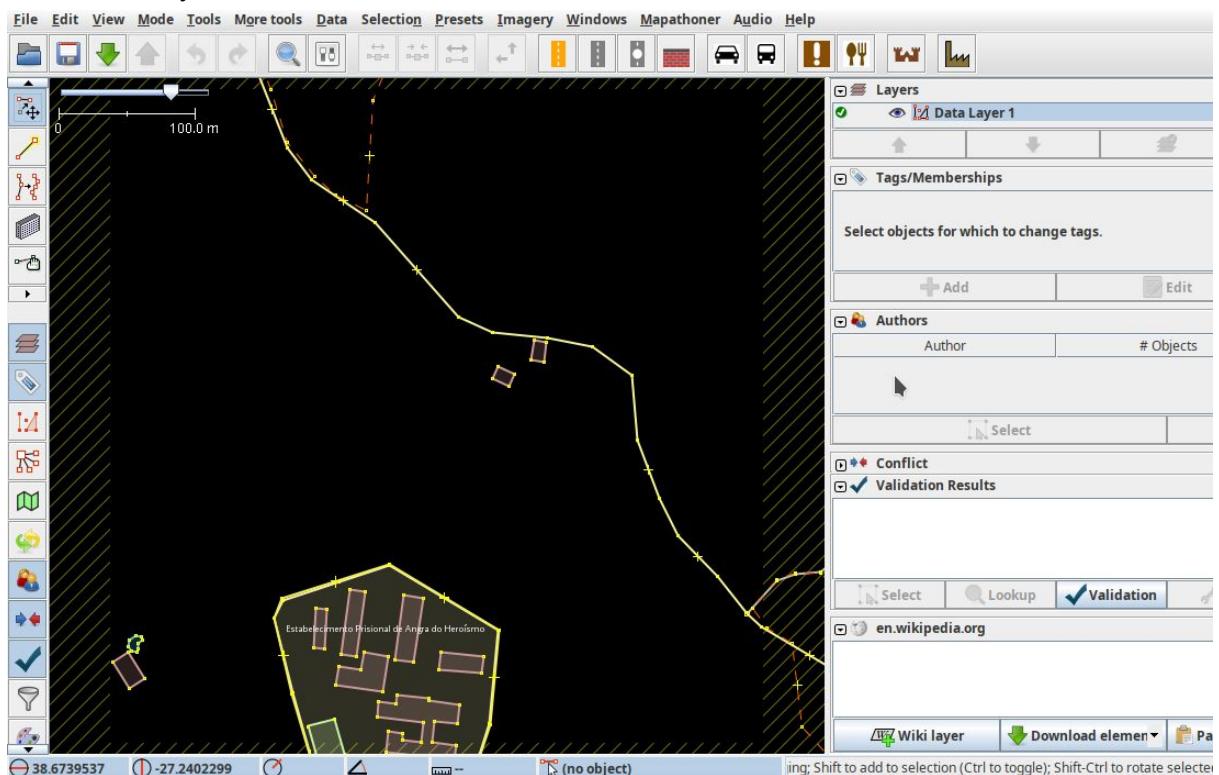
- Yellow: Cur. worked on (1)
- Light Blue: Invalidated
- Orange: Done
- Green: Validated

The map includes labels for São Mateus, Ladeira dos Pimpões, Terra-Chá, and various roads like EN6-2A and EN6-2B.

6. Open Edit with JOSM

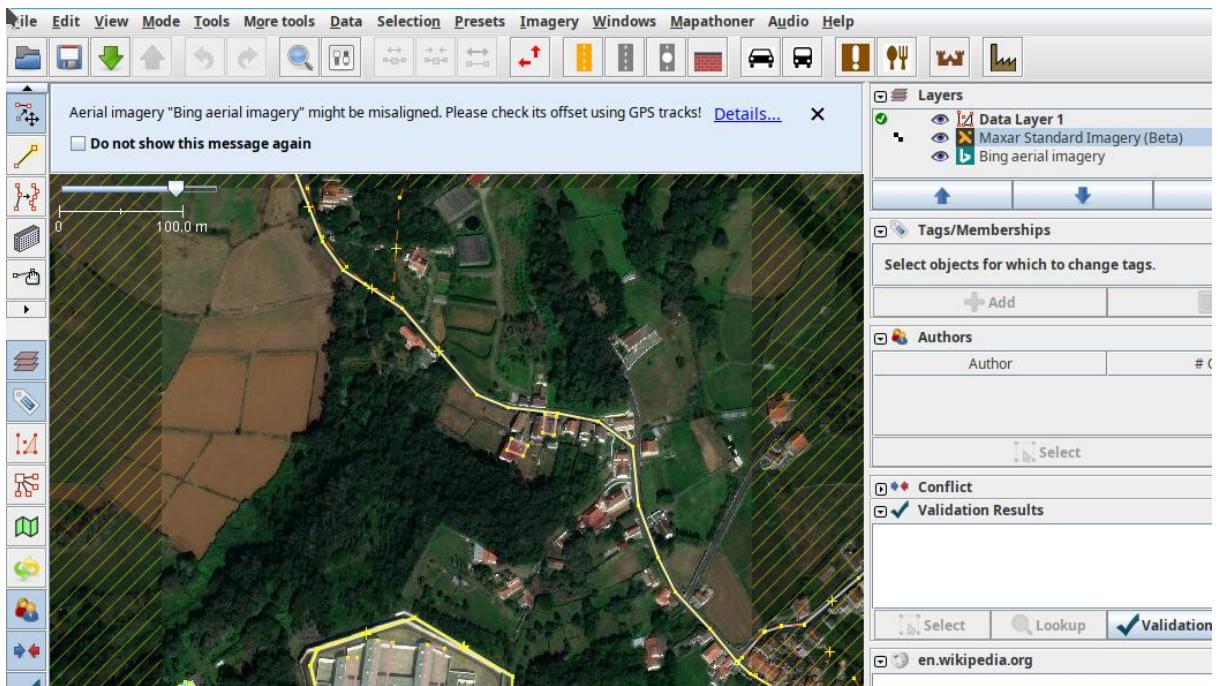


7. Move your mouse to JOSM and click it



8. In JOSM the selected Square is automatically opened

9. Now choose - Imagery
and select - **Bing aerial imagery or Maxar Standard Imagery ...**
the one which looks best to you



10. Then start mapping buildings or roads



Appendix

Participation OSM Geography Awareness Week

- OSM Geography Awareness Week 2020 - Participation Guide (4)

OSM Geography Awareness Week 2020

1. What do I need to participate?

1.1. JOSM

1.1.1. The plugins “Buildings” and “Terracer” **should be** installed in JOSM

1.1.2. Remote control in JOSM - **must** be enabled

1.2. <http://taches.francophonelibre.org/project/316>

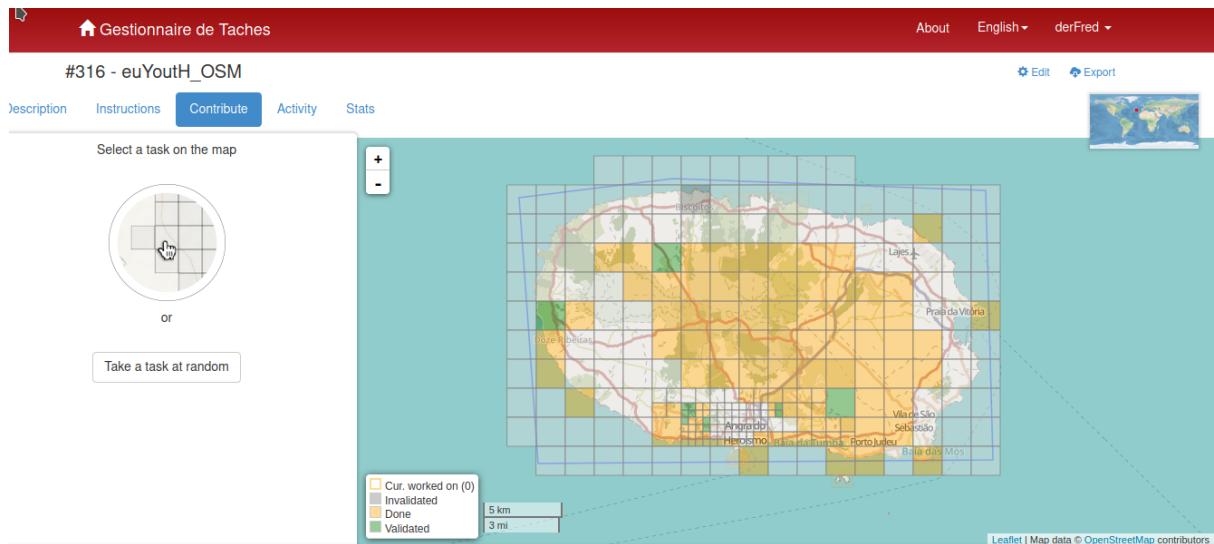
2. How do I proceed?

2.1. Start JOSM and

2.2. Start your browser and

2.3. Open the link above to project 316

Your screen should now more or less look like this:



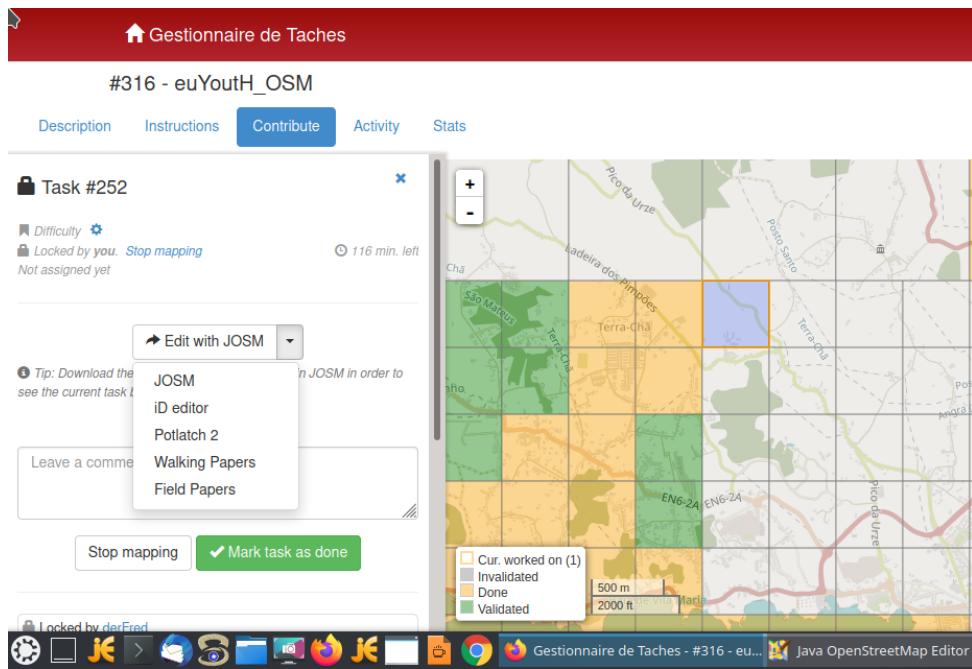
1. please click on one of the squares (on the picture the blue one is selected)

The screenshot shows the 'Gestionnaire de Taches' interface for task #316. On the right, a map of a rural area with roads like 'EN6-2A' and place names like 'São Mateus' and 'Terra-Chá' is overlaid with a 4x4 grid. The bottom-right square of the grid is highlighted in blue, indicating it is selected. A legend on the right side of the grid defines the colors: yellow for 'Cur. worked on (0)', grey for 'Invalidated', orange for 'Done', and green for 'Validated'. Below the map, there's a status bar showing '500 m' and '2000 ft'.

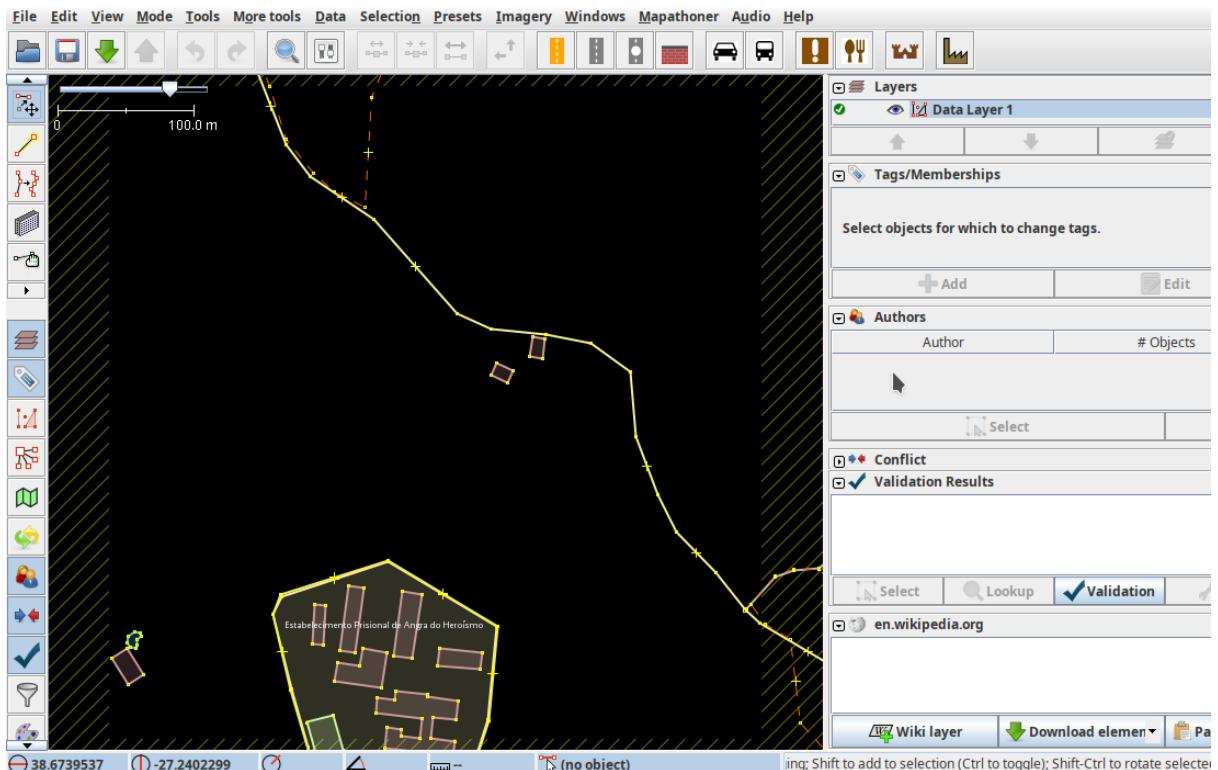
2. Now click **Start mapping**

The screenshot shows the 'Gestionnaire de Taches' interface for task #316. The task details on the left show 'Difficulty' and 'Locked by Jonizeh'. The map on the right shows the 4x4 grid with the bottom-right square now highlighted in orange, indicating it has been worked on. The legend remains the same as in the previous screenshot.

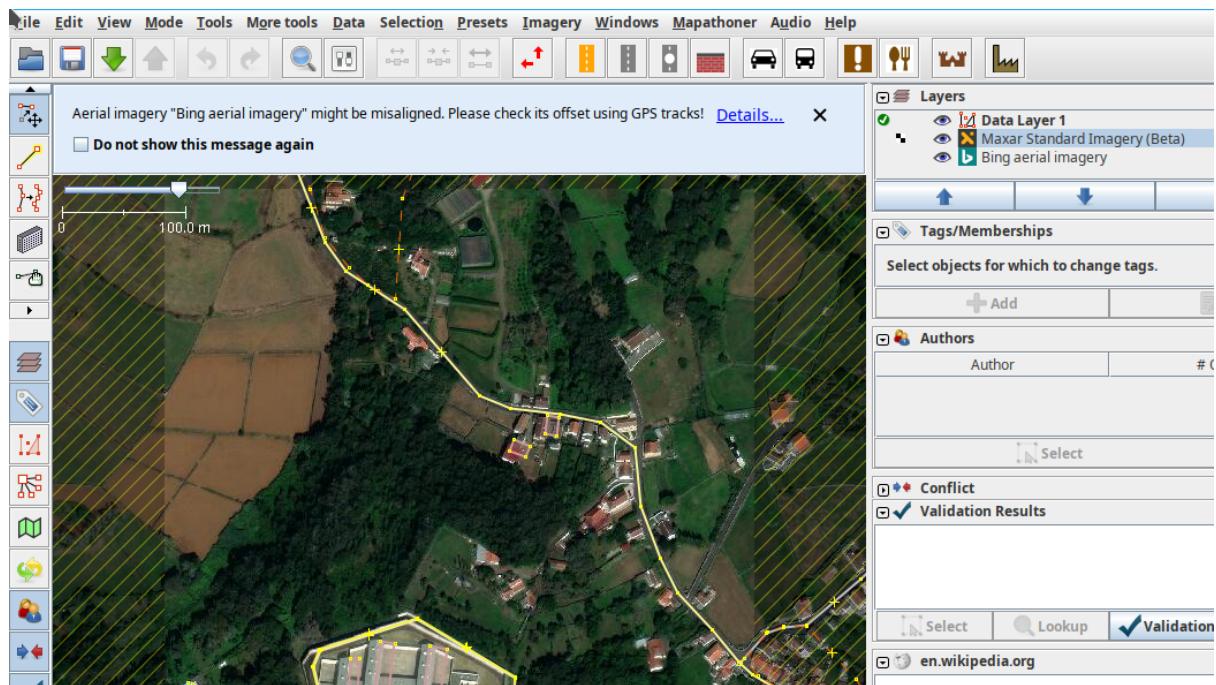
3. Open **Edit with JOSM**



4. Move your mouse to JOSM and click it - the selected Square will be **automatically opened** in JOSM (because you enabled Remote control in JOSM ;-))
5. Switch to JOSM and see the the selected Square is **automatically opened**



6. Now open open Imagery in the Menu and select - **Bing aerial imagery**



7. You find unmapped **buildings** or **roads** - happy mapping ;-)

8. to finish switch back to your Browser dan click on **Stop mapping**
OR even better ;-) **Mark as done**

Any question - just go to our BigBlueButton your teachers are waiting for you ;-)



Appendix

Erasmus+ "virtual mobility/activity" with UN - Mapper

- Romania Host 2021-02-22 until 2021-02-24

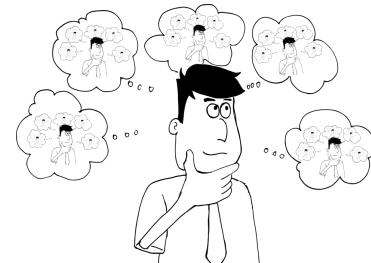
- Tools to know for mapping OSM - JOSM - Tasking Manager (1)
- Solution Tools_to_know_for_mapping_OSM - JOSM - Tasking Manager (1)
- What we see on the map? - How objects are saved in the OSM Database? (3)
- Solution What we see on the map? - How objects are saved in the OSM Database? (3)
- Useful tags for our mapathon (1)
- Useful tags for our mapathon - Solution (1)
- Mapping - JOSM/Tasking Manager - we map in Terceira (5)
- Adjust imagery offset (2)
- JOSM - First Upload Authentification (2)



Tools to know: JOSM, Tasking Manager, ...

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Wiki is our friend.

OpenStreetMap has its own Wiki.

https://wiki.openstreetmap.org/wiki/Main_Page

10/15 minutes - **break out rooms**

Questions: **What is JOSM?** - Powerful or not? Where is its homepage?

Questions: **What is a Tasking manager?** Why volunteers use it? What's the purpose of this tool?

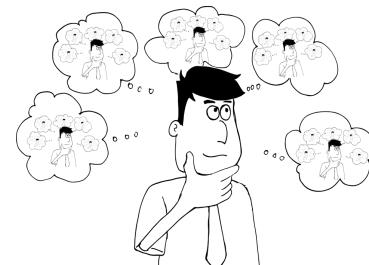
Questions: **What is a mapathon?**



Tools to know: JOSM, Tasking Manager, ...

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Wiki is our friend.

OpenStreetMap has its own Wiki.

https://wiki.openstreetmap.org/wiki/Main_Page
10/15 minutes - break out rooms

Questions: **What is JOSM?** - Powerful or not? Where is its homepage?

JOSM (Java OpenStreetMap Editor) is a desktop application for editing OpenStreetMap.

It is the most powerful out of available editors.

Its homepage is located at josm.openstreetmap.de.

Questions: **What is a Tasking manager?** Why volunteers use it? What's the purpose of this tool?

The Tasking Manager is the tool for coordination of volunteers and organization of groups to map on OpenStreetMap.

The purpose of the tool is to divide up a mapping job into smaller tasks that can be completed rapidly.

This approach facilitates the distribution of tasks to the various mappers.

Questions: **What is a mapathon?**

A Mapathon is a coordinated mapping event.



What we see on the map?

How objects are saved in the OSM database?

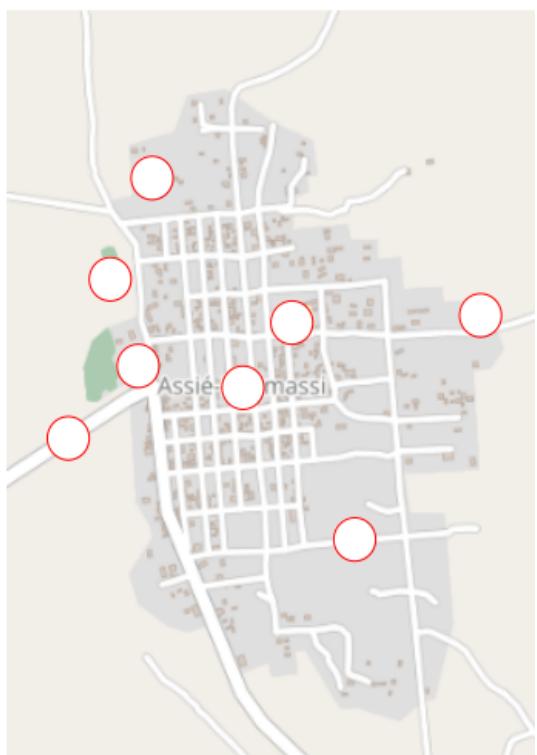
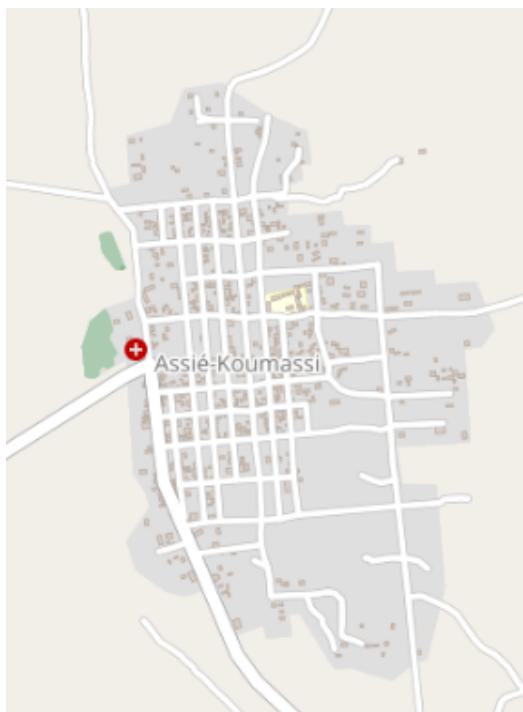
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Map of Assié Koumassi - Cote d'Ivoire

<https://www.openstreetmap.org/#map=13/6.7602/-4.2740>



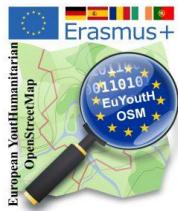
- For each symbol in the table (below), find the **point** in the map at the top left and enter the corresponding **number** in the map on the right. Use the link above to get more details from the map if necessary.

- Write what you see on the map

- We discover with **JOSM** how it is represented in OSM

Number	Map	Write here what you see on the map. ↑↑↑↑↑↑↑↑	How is it in the database? We check it with JOSM. We call it a "tag". ¹
1			
2			

¹ <https://wiki.openstreetmap.org/wiki/Tags>



What we see on the map?

How objects are saved in the OSM database?

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3			
4			
5			
6			
7			
8		VERY DIFFICULT ;-)	

4. Technical expressions

	technical expression in OSM	How many of the 8 objects?	name the objects
Objects can be a single point .		2	
Objects can be a line .		2	
Object can be a polygon .		4	

School found in **JOSM** - The combination of Key and Value is called a **tag**.

Facilities/Education/School ...	
Key	Value
amenity	school

Add **Edit** **Delete**

- Why a polygon on the map is “painted” as a grave_yard and the other polygon is a building? _____.
- What makes a single line in the database on the map a river or a road? _____.
- How a node, way or an area is represented on a map is defined by the _____. _____.
- A _____ consists always of a _____ and a _____.



What we see on the map?

How objects are saved in the OSM database?

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Exercise / homework:

- Find the eight tags using JOSM and enter the key and value in the table.
- Write in the form: **Key = Value**

How to:

1. Launch your preferred browser like Firefox or Chrome e. g.
2. Start JOSM
3. Configure (if you did it not before) JOSM due to activate the remote control in jsom using Edit/Preferences/Remote Control -> Enable remote control
4. Don't close JOSM. Switch back to your Browser. Open Assié Koumassi in OpenStreetMap (see the link above 😊) and open JOSM directly from your Browser

5.



What we see on the map?

How objects are saved in the OSM database?

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Map of Assié Koumassi - Cote d'Ivoire

<https://www.openstreetmap.org/#map=13/6.7602/-4.2740>



1. For each symbol in the table (below), find the **point** in the map at the top left and enter the corresponding **number** in the map on the right. Use the link above to get more details from the map if necessary.

2. Write what you see on the map
3. We **discover** with **JOSM** how it is represented in OSM

Number	Map	Write here what you see on the map. 👉👉👉👉👉👉👉👉	How it is in the database? We check it with JOSM. We call it a “tag”. ¹
1		Road outside the village	highway=tertiary
2		Road inside the village	highway=residential

¹ <https://wiki.openstreetmap.org/wiki/Tags>



What we see on the map?

How objects are saved in the OSM database?

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3		Buildings	building=yes
4		Village border	landuse=residential
5		Cemetery	amenity=grave_yard
6		Hospital	amenity=hospital ; name=....
7		School	amenity=school ; name=Ecole Privée Tchiambie
8		Place name	place=village ; name=...

4. Technical expressions

	technical expression in OSM	How many of the 8 objects?	name the objects
Object can be a single point .	node	2	Hospital, Village name
Object can be a line .	way	2	2 roads
Object can be a polygon .	area	4	school, village, cemetery, building

School found in **JOSM** - The combination of Key and Value is called a **tag**.

Facilities/education/School ...	
Key	Value
amenity	school

1. Why a polygon on the map is “painted” as a grave_yard and the other polygon is a building? **Because of the different tags.**
2. What makes a single line in the database on the map a river or a road? **The tag.**
3. How a node, way or an area is represented on a map is defined by the **tags**.
4. A **tag** consists always of a **key** and a **value**.



Useful tags for our mapathon

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Tags: 1 / Memberships: 0

Man Made/Man Made/Building ...	
Man Made/Man Made/Residential Building ...	
Key Value	
Add Edit Delete	

EXAMPLES

we found in “our JOSM-Task” in Santa Barbara, Terceira

OSM-Wiki is your friend

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

Object	Key	Value	Link to our OSM Wiki
Place of residence			https://wiki.openstreetmap.org/wiki/Tag:landuse%3Dresidential
			https://wiki.openstreetmap.org/wiki/Key:place#Populated_settlements.2C_urban_and_rural
building			https://wiki.openstreetmap.org/wiki/Key:building#Values
waterway			https://wiki.openstreetmap.org/wiki/Key:waterway
road			https://wiki.openstreetmap.org/wiki/Highways#Classification
powerline			https://wiki.openstreetmap.org/wiki/Power_lines#keys_and_values



Useful tags for our mapathon

SOLUTION

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Tags: 1 / Memberships: 0

Man Made/Man Made/Building ...
Man Made/Man Made/Residential Building ...

Key	Value

Add **Edit** **Delete**

EXAMPLES

we found in "our JOSM-Task" in Santa Barbara, Terceira

OSM-Wiki is your friend

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

Object	Key	Value	Link to our OSM Wiki
Place of residence	landuse	residential	https://wiki.openstreetmap.org/wiki/Tag:landuse%3Dresidential
	place	village	https://wiki.openstreetmap.org/wiki/Key:place#Populated_settlements.2C_urban_and_rural
building	building	yes	https://wiki.openstreetmap.org/wiki/Key:building#Values
waterway	waterway	stream	https://wiki.openstreetmap.org/wiki/Key:waterway
road	highway	residential	https://wiki.openstreetmap.org/wiki/Highways#Classification
powerline	power	line	https://wiki.openstreetmap.org/wiki/Power_lines#keys_and_values



Mapping JOSM/Tasking Manager we map in Terceira

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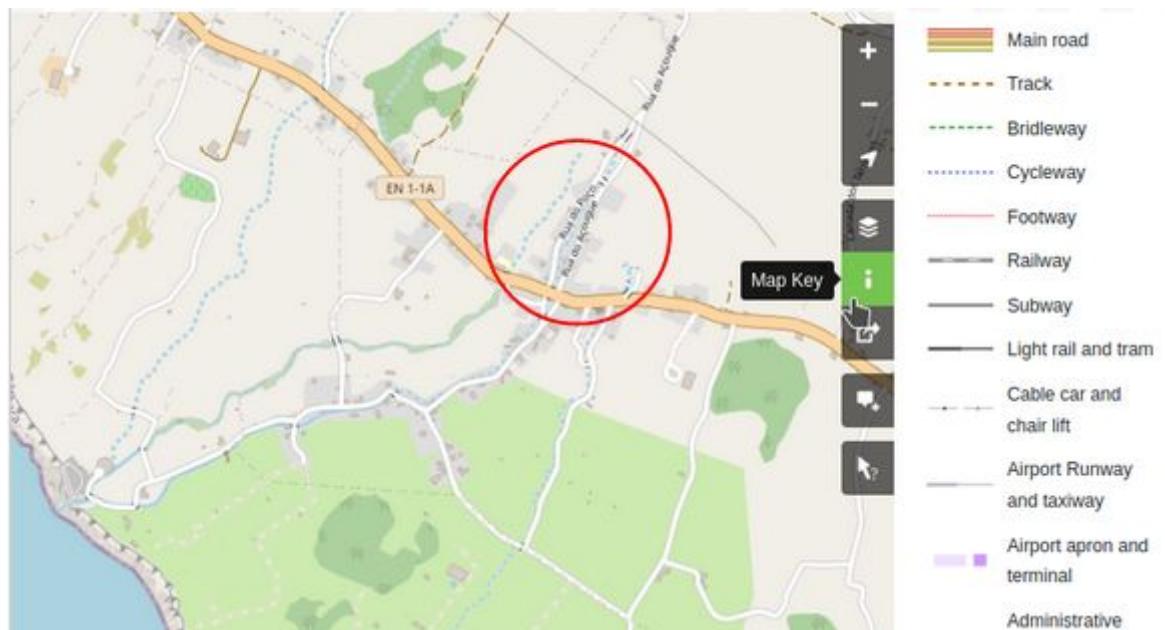
© CC BY

We check the region where we have in mind to map

We will map our first building in Santa Barbara, Terceira

1. we open the following link:

<https://www.openstreetmap.org/#map=16/38.6949/-27.3336>



The map shows a lot more as we saw until now.

Therefore - as every map - OSM offers a "legend". For end users they call it "Map key".

You find the "legend", clicking on the "i". When you click on it it changes the colour to green.

You know meanwhile, - OSM-wiki is our friend -
therefore some links to map features.

all features	https://wiki.openstreetmap.org/wiki/Map_features
landuse	https://wiki.openstreetmap.org/wiki/Map_features#Landuse
rural - agricultural landuse	https://wiki.openstreetmap.org/wiki/Map_features#Common_Landuse_Key_Values_-_Rural_and_agricultural_land



Mapping JOSM/Tasking Manager we map in Terceira

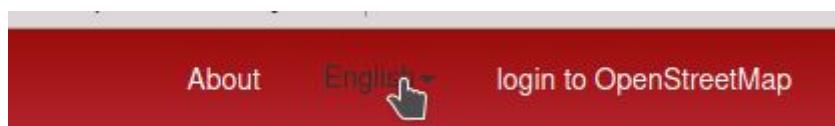
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We open the OSM data in JOSM via the Tasking Manager

1. We start **JOSM**
2. We open in a browser the tasking manager:
<http://taches.francophonelibre.org/project/316> #316 is the Project
3. We must login with OpenStreetMap

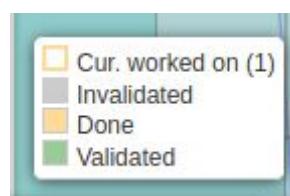


4. We click on **Contribute** and click a task to select it (see the one in light blue)

The screenshot shows the 'Gestionnaire de Tâches' (Task Manager) interface. At the top, there's a red header bar with the title 'Gestionnaire de Tâches', a language dropdown set to 'English', and a user 'derFred'. Below the header, the project is identified as '#316 - euYouth_OSM'. The main area has tabs for 'Description', 'Instructions', 'Contribute' (which is selected and highlighted in blue), 'Activity', and 'Stats'. On the left, a panel for 'Task #478' shows the task is not assigned yet and includes a 'Start mapping' button. On the right, a map displays a grid overlay over a terrain. A specific location is circled in red. A legend at the bottom right defines the colors: yellow for 'Cur. worked on (0)', grey for 'Invalidated', orange for 'Done', and green for 'Validated'. The map also includes a scale bar for 5 km and 3 mi.

- see in our mapping activity in Terceira it is **task #478** in the project #316

please observe:





Mapping JOSM/Tasking Manager

we map in Terceira

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5. Now we click **Start Mapping**

Task #478

Difficulty: Locked by you. Stop mapping 119 min. left Not assigned yet

Tip: Download the file to see the current task details.

Leave a comment

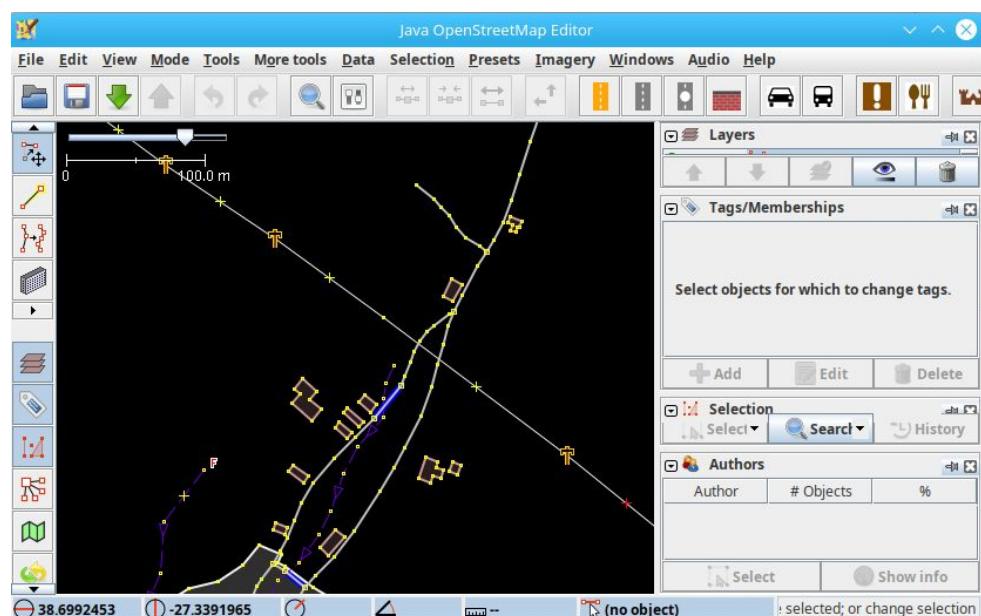
Edit with JOSM ▾

- JOSM
- iD editor
- Potlatch 2
- Walking Papers
- Field Papers

Stop mapping Mark task as done

taches.francophonelibre.org/project/316#description

- and we move the cursor to **JOSM**, click on it and ... here the OSM data appear in JOSM





Mapping JOSM/Tasking Manager

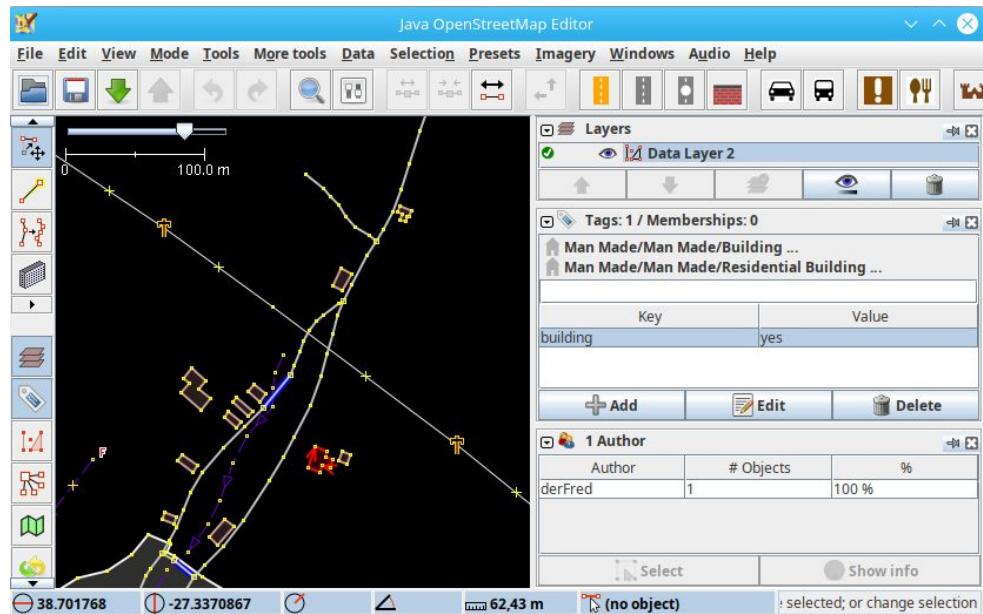
we map in Terceira

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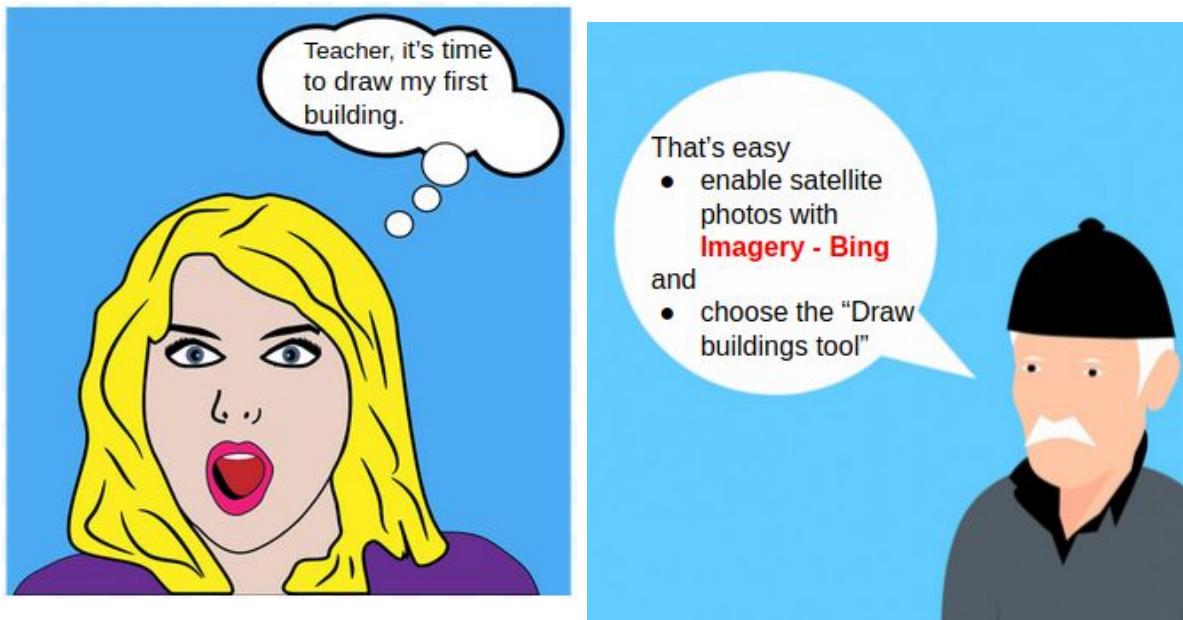


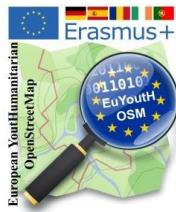
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7. We select a building by clicking on it, and we see



the tag
and
who
did it





Mapping JOSM/Tasking Manager

we map in Terceira

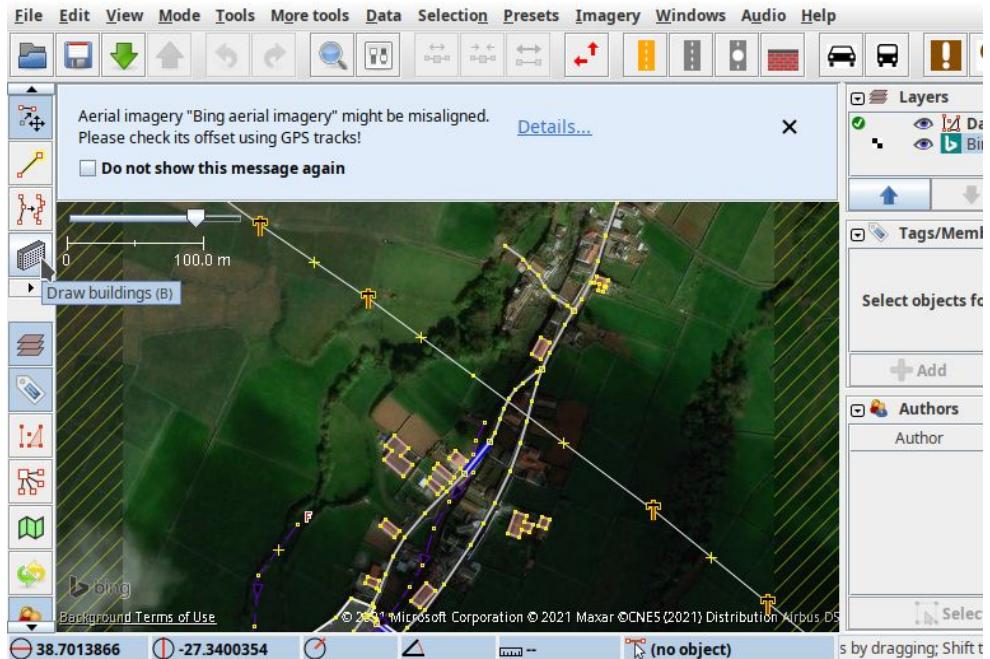
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- Imagery
- Bing

switched on



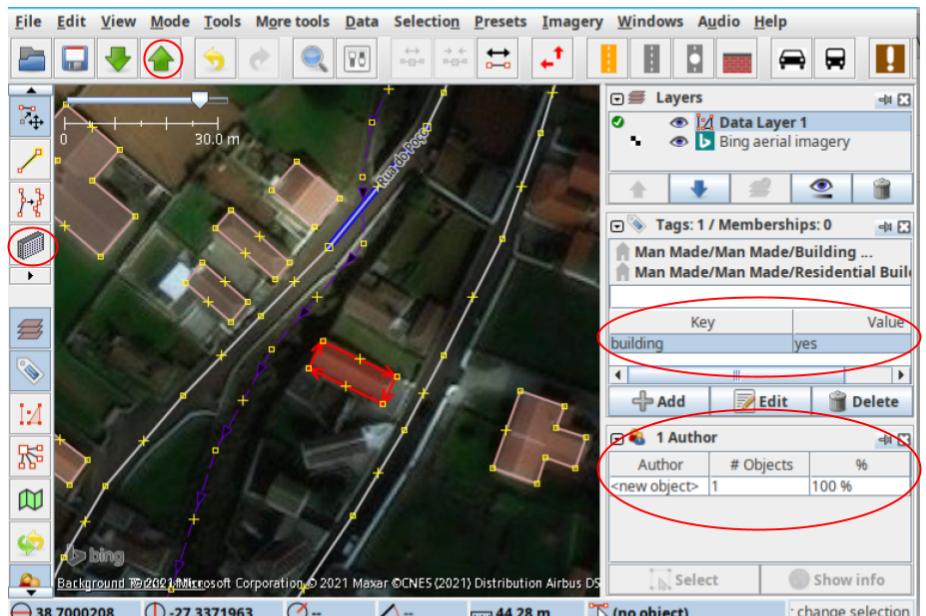
we scroll with the mouse wheel closer

and we click on the

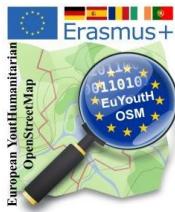
“Building tool”
and draw a building

The tag with the key and
the value is done
automatically by the
“Building tool”

Upload to database



The Information the author appears directly. The building now exists on the map as well.



Adjust imagery offset

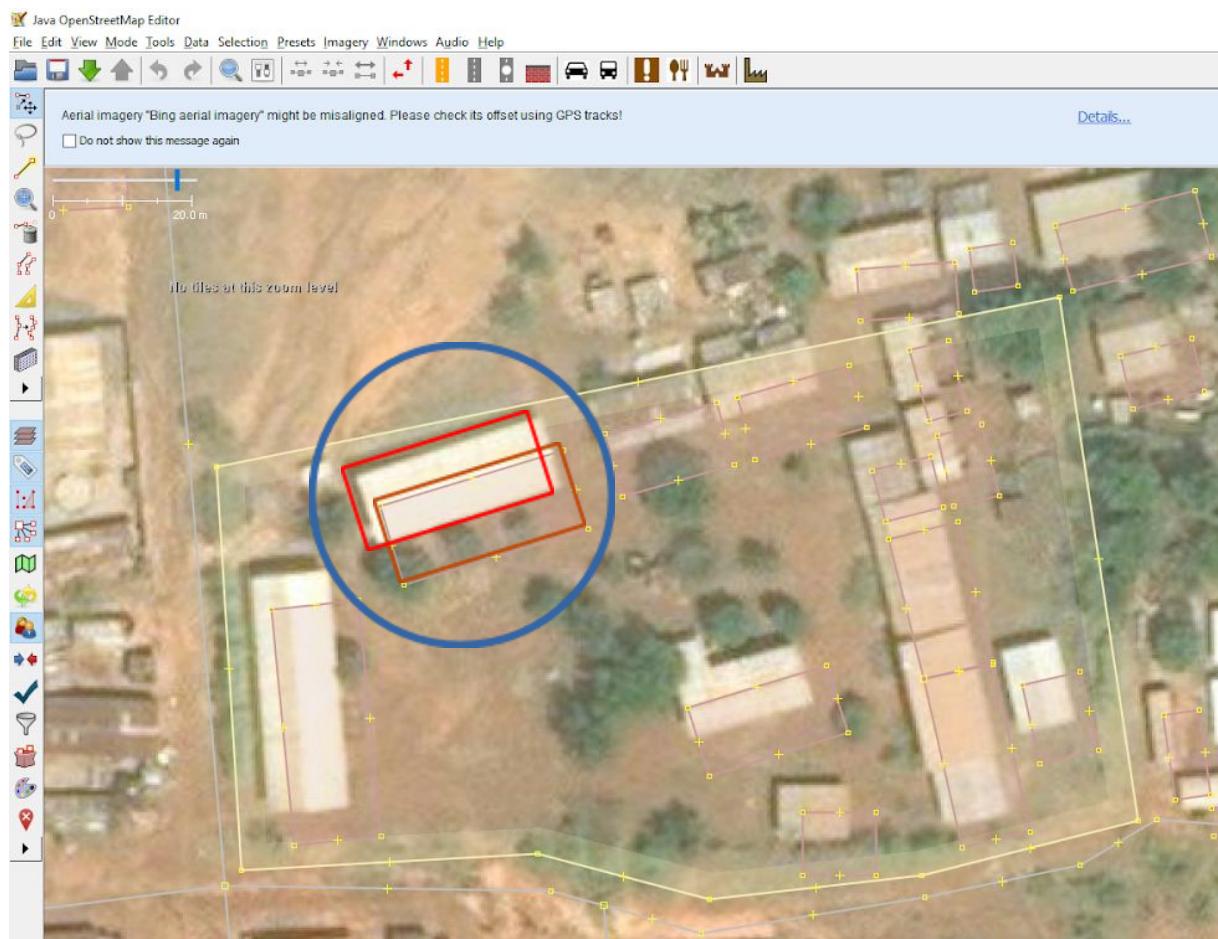
Instructions just in case!

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When using aerial images (e.g. Bing) for mapping, it can happen that existing objects are inaccurately placed or distorted (see the following image). The real location of objects can best be traced with your own GPS data. Since this data is not always available, **the map must be adapted to the existing objects**.



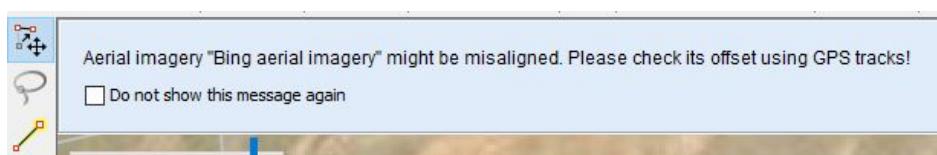
Further information and explanations: https://wiki.openstreetmap.org/wiki/Using_Imagery

Instructions for correcting the offset:

Step 1: Open JOSM with the appropriate data (e.g. from browser via remote control).

Step 2: Blend aerial photographs such as those used by Microsoft Bing (JOSM → Imagery/Bing aerial imagery).

Step 3: Visually check for possible displacement. Sometimes the following message appears:





Adjust imagery offset

Instructions just in case!

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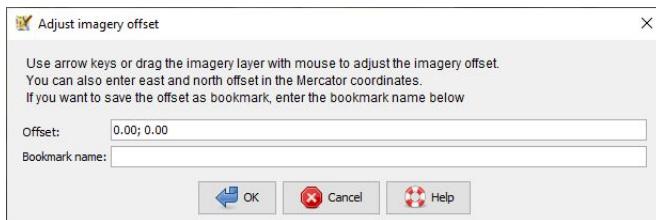
UN
Mappers

Step 4: If there is an offset, correct it before you start mapping.

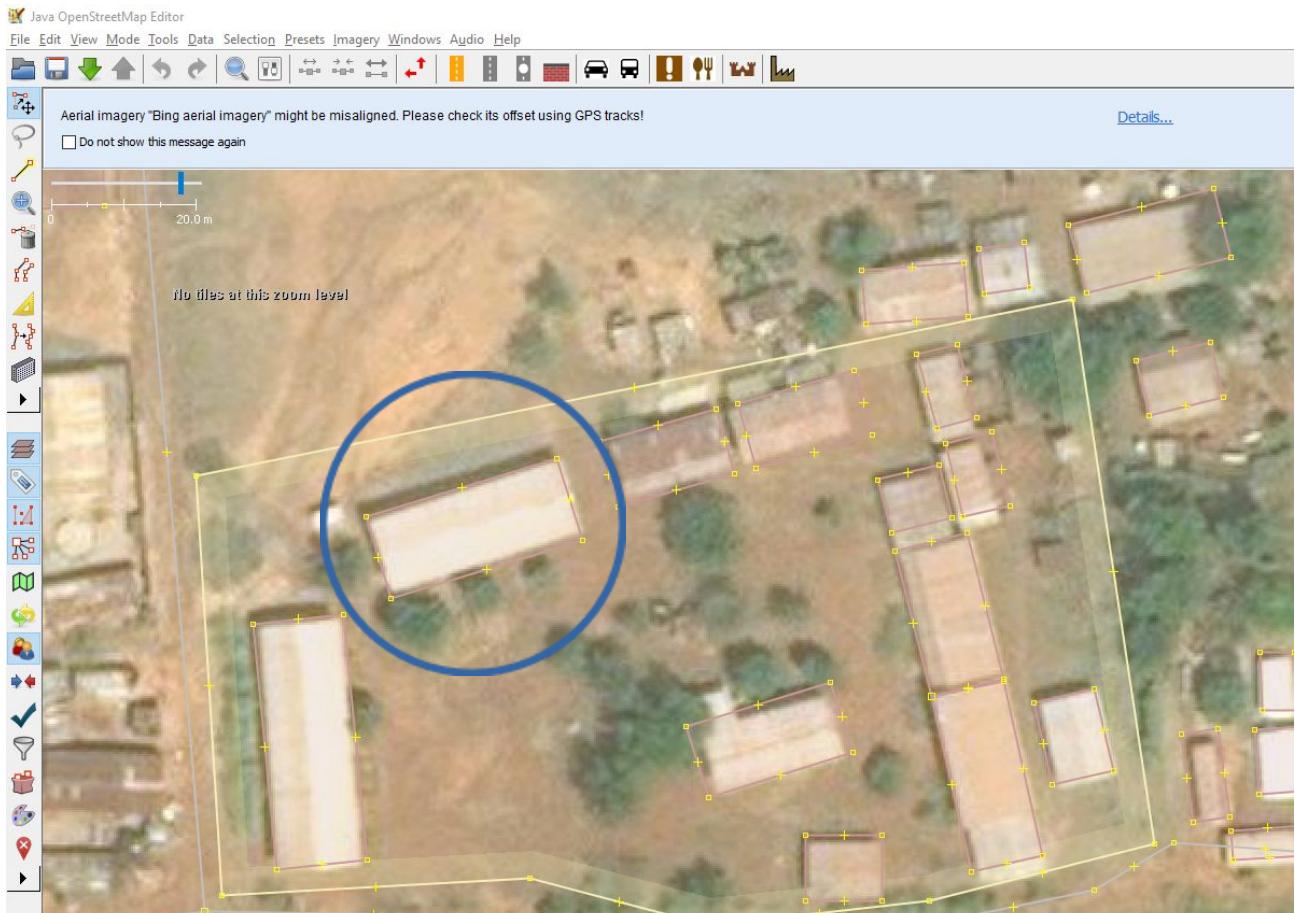
Click on the following button in JOSM:



This window appears:



Move the aerial view with the left mouse button to fit the objects and close the window with [OK].



Now you can start mapping. Have fun.



JOSM - First Upload - Authentification Instructions just in case!

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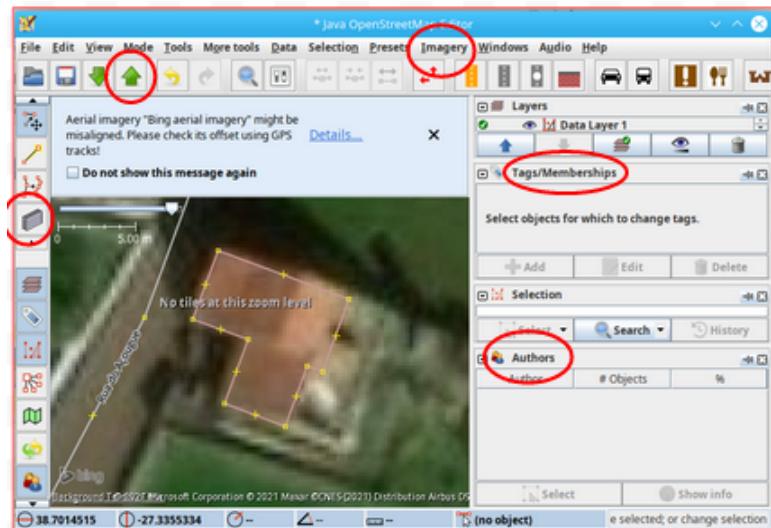


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1. Locals explain the main buttons

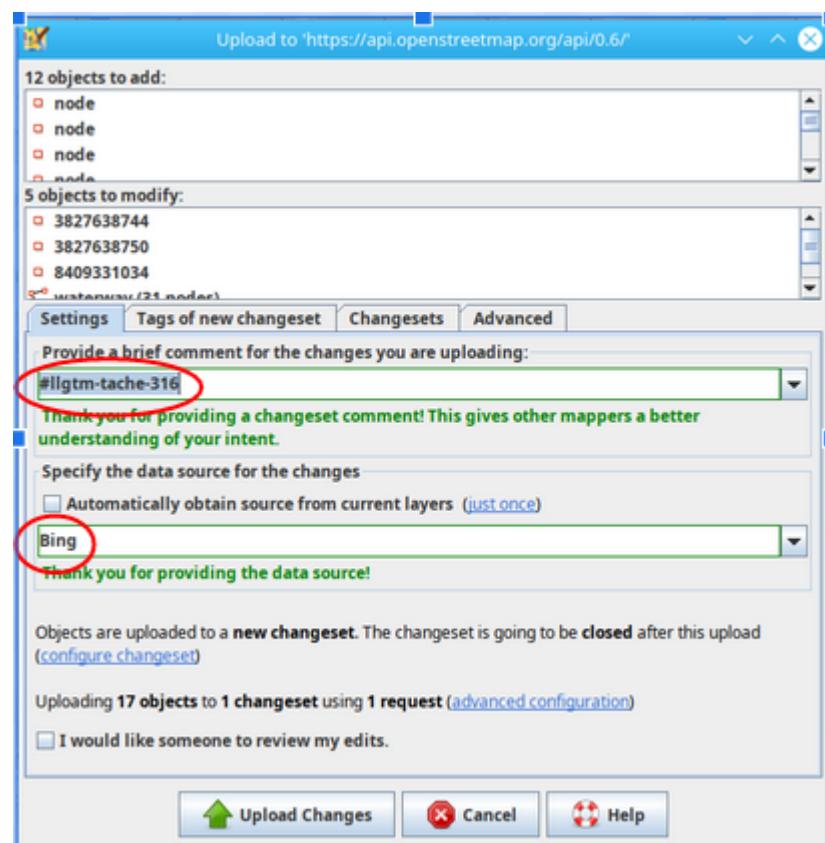
- Building_tools
- Upload
- Imagery
- windows

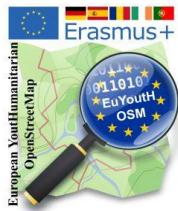
Tags/Memberships
Authors



2. Try to upload

Explain
Changeset comment





JOSM - First Upload - Authentification Instructions just in case!

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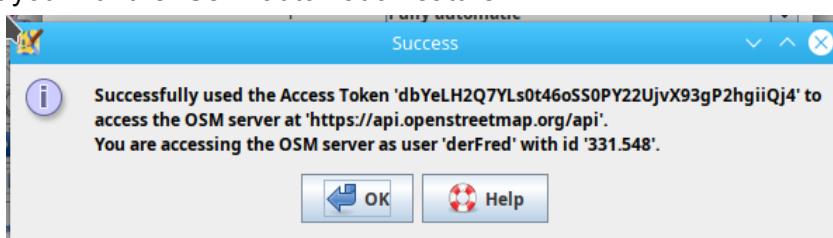
- When uploading for the **first time**, you must authenticate the upload so that it is known who uploaded the data.



- No you can **Test the Access**.



- If it works fine, you should get this message. Otherwise talk to your teacher and he/she will try to connect you with the “Semi automatic” feature.



- Congratulations, your upload is now working. Reminder: Steps 4. and 5. are only necessary if JOSM has not yet been used.



Appendix

Erasmus+ "virtual mobility/activity" with UN - Mappers

Portugal Host 2021-03-22 until 2021-03-24

- Mapping from satellite images in desert areas (6)



Mapping from satellite images in desert areas

mapathon [Erasmus+ euYouth_OSM](#) and [UN mappers](#) © CC BY



**UN
Mappers**

Issue #1

<https://tasks.hotosm.org/projects/10563/tasks/?search=78>

Selected features

The screenshot shows a satellite map of a desert landscape with sparse green vegetation. Several red outlines represent mapped highway features. A scale bar in the top left corner shows distances from 0 to 100.0 m. To the right of the map is a sidebar with the following sections:

- Layers:** Validation errors, OSM Data, Boundary for task: 78 of TM P..., Data Layer 2, Data Layer 1, OpenTopoMap, tms[22]:https://services.digit..., Maxar Premium Imagery (Beta).
- Objects: 7 / Tags: 1 / Membership:** Highways/Streets/Unclassified..., Traffic_signs_BR/A.Ways/Highways/Unclassified...
- Key Value:** highway unclassified
- Sel.: Rel.:0 / Ways:7 / Nodes:0:** highway (18 nodes) [id: 921 356 946, v1], highway (28 nodes) [id: 921 356 934, v1], highway (28 nodes) [id: 921 356 942, v1], highway (29 nodes) [id: 921 356 940, v1]
- 1 Author:** Francisca # Objects % 7 100%
- Validation Results:** (checkbox checked)

without the OSM features, in order to see the imagery better

The screenshot shows the same satellite map as the previous one, but with OSM features removed. The map appears darker and less detailed. The sidebar on the right is identical to the previous screenshot.



Mapping from satellite images in desert areas

mapathon [Erasmus+ euYouth_OSM](#) and [UN mappers](#) © CC BY



Solution:

There is a misinterpretation of the map features: the selected ways are not unclassified highways but intermittent streams. You can understand the difference between highways and waterways as streams have a more complex and natural flow direction, while highways tend to be more linear and simple. Also, around waterways there could be some more vegetation, or shady areas given by the water which digs the ground. In this example, waterways do not connect to the unclassified road at the bottom of the picture, as they are flowing to the NE.



Mapping from satellite images in desert areas

mapathon [Erasmus+ euYouth_H_OSM](#) and [UN mappers](#) © CC BY



**UN
Mappers**

Issue#2

<https://tasks.hotosm.org/projects/10563/tasks/?search=90>



Solution :

It lacks a tag to clarify how the waterway and the highway interact. `ford=yes` in this example, as the roads are passable when there is no or low water.



Mapping from satellite images in desert areas

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**UN
Mappers**

Issue #3

<https://tasks.hotosm.org/projects/10563/tasks/?search=90>



Solution:

The highway should not be connected to the place and continue down to the South.
The residential area needs to be updated as it does not include all the buildings.



Mapping from satellite images in desert areas

mapathon [Erasmus+ euYouth_OSM](#) and [UN mappers](#) © CC BY



**UN
Mappers**

Issue #4

<https://tasks.hotosm.org/projects/10563/tasks/?search=90>



[Terms & Feedback](#)

Solution:

The residential area is not closed and is also connected to a path whereas it should not. The place is at the intersection of two road whereas it should not be connected to any other feature, but to be a standalone node at the middle of the residential area polygon. As a general rule, landuse and network like features (highways, waterways) should not be connected.



Mapping from satellite images in desert areas

mapathon [Erasmus+ euYouthH_OSM](#) and [UN mappers](#) © CC BY



**UN
Mappers**

Issue #5

<https://tasks.hotosm.org/projects/10563/tasks/?search=90>



Solution:

The path is connected to the river while it seems there is no path there