

Mapping the Surroundings Yourself - Outdoor Mapping Event

A guide for students and enthusiasts



Figure 1. Early practice for those who want to become a "master mapper"! (Source: EducOSM.xyz 2019)

Overview

Goal

The goal of this worksheet is to communicate knowledge in the field of OpenStreetMap (OSM) and cartography, so that students and enthusiasts are able to map the surroundings or another area independently on the instruction of the teacher or instructor.

Audience

Students and enthusiasts.

Scheduling

Depending on your previous knowledge, the processing of this worksheet requires different amounts of time, but at least three hours.

This is the rough schedule of an outdoor event:

1. General preparations (e.g. what is OpenStreetMap?); min. approx. 20 min.
2. Concrete preparation for outdoor mapping; min. approx. 20 min.
3. Mapping outside; min. 60 min, better two to three hours.

4. Instruction for editing OpenStreetMap; min. approx. 20 min.
5. Editing on the computer; at least about one hour, better two hours.

Introduction

The following topics are covered in this worksheet:

- What is OpenStreetMap?
- What's being mapped? What not?
- What can be mapped at outdoor events?
- Preparations for outdoor mapping
- How to edit OpenStreetMap?

What is OpenStreetMap (OSM)?

OpenStreetMap is an international project similar to Wikipedia in which volunteers collect geodata that is then used by countless applications. The OSM data belongs to the community and - in contrast to Google Maps or national maps such as the map viewer of the federal government (map.geo.admin.ch) - can be reused under a free license.

OpenStreetMap can be used in many different ways and users can have different goals. In the following we have compiled a few possible uses of OpenStreetMap:

- Navigation at the computer (e.g. OSM.org) or with the Smartphone (e.g. Maps.Me)
- Background map or location map embedded in web pages
- Location and hiking map
- Interactive web maps of all kinds (e.g. a castle map)
- Spatial analyses (e.g. Nebelkarte.ch)



If you want to learn more about OpenStreetMap, check out the "Get to know the OSM.org website" worksheet at OpenSchoolMaps.

What's being mapped? What not?

Mapping and cartography refers to the collection of spatial data, i.e. geodata. Before you can integrate this geodata into OpenStreetMap, you have to collect it first. There are several ways to do this. One possibility is to research the data. You search different documents and/or websites and collect data that is still missing in OpenStreetMap or no longer up-to-date. Another possibility is to ask people to give information about missing data. The last possibility, for example to record houses and streets, is to go out and take notes. These notes can then be transferred to OpenStreetMap at a later time.

The most important thing in mapping is that what you map is verifiable. Objects that are open to the public, such as streets, houses, shops or snack corners, are well suited.

Examples of unsuitable objects are:

- Personal opinions
- Personal data
- Construction sites or things on wheels that are gone after a few days or weeks.
- Ratings on restaurants or shops
- Photos (except as a web link to photos previously uploaded to <http://commons.wikimedia.org/>)

What can be mapped at outdoor events?

As you have already read above, streets, houses, shops and restaurants are suitable objects/data for mapping. The purpose of this event is to unite with a friend and map the surroundings as a group. Of course it would take far too long to map the whole area and let's face it, this would be a bit much at once.

There are now the following ways to find out what to map. Either the instructor will tell you what to do - or you can choose the places in the area that you like. Examples are your home if it is nearby, a part of your way to school, a local sight or the home of one of your friends. There are enough things that can be mapped. Here again a compilation:

Streets:

- Roads and paths marked one-way street
- Street names
- Pedestrian crossing
- Public parking for cars and bicycles

Houses and house numbers:

- House outlines
- House numbers

Shops and restaurants:

- Name of the shop/restaurant
- Address
- Telephone number
- Website
- Opening hours



There is also an "OpenStreetMap Tagging Cheatsheet" (PDF) on [OpenSchoolMaps](#) under "Teaching Materials".

Preparations for outdoor mapping

Before you set off as a group to explore your surroundings and collect data, it makes sense to know what you need for a smooth process. Since you can hardly remember all the characteristics of the streets, houses, house numbers, shops and restaurants, you need suitable aids. We use pen and paper. It is best to have a section of the surroundings on the paper so that you can see what is where and what is already entered.

It would also be possible to use a smartphone with GPS. But we don't use that here, because it needs much more explanation and experience than pen and paper.

Checklist for preparation:

- Printed card on which you can make notes (at least one per group)
- Possibly a hard card underlay
- Writing material
- Possible smartphone or camera e.g. for photographing opening hours
- (Possibly a power bank for the smartphone if the GPS is used)
- (The teacher or instructor may have other things to consider)

Have fun cartographing!

The next chapter explains how to capture the information written on paper on your computer.

How to edit OpenStreetMap?

Now that you are back, you can edit the data on OpenStreetMap.

The following explanations are a short version of the worksheet "Edit OpenStreetMap" at [OpenSchoolMaps](#).

Before you can start editing or adding data on OpenStreetMap, you need to register there. If the instructor hasn't already done the registration for you, go to the website of [OpenStreetMap](#). In the upper right corner you will see a "Register" button. Click on it, now you have to enter an e-mail and set a username and password. You must then confirm the details by e-mail by clicking on a link. After that your account is already set up.

Now you can start editing. So let's go!

After you sign up, navigate to your area. If you like, you can also enter a place name in the search field. But now we don't just want to look at our environment in OpenStreetMap, we want to edit it. To do this, click on "Edit" in the upper left corner. If you've never edited objects in OpenStreetMap before - and this is the case right after registering - a "Welcome to the iD OpenStreetMap editor"-window will appear.

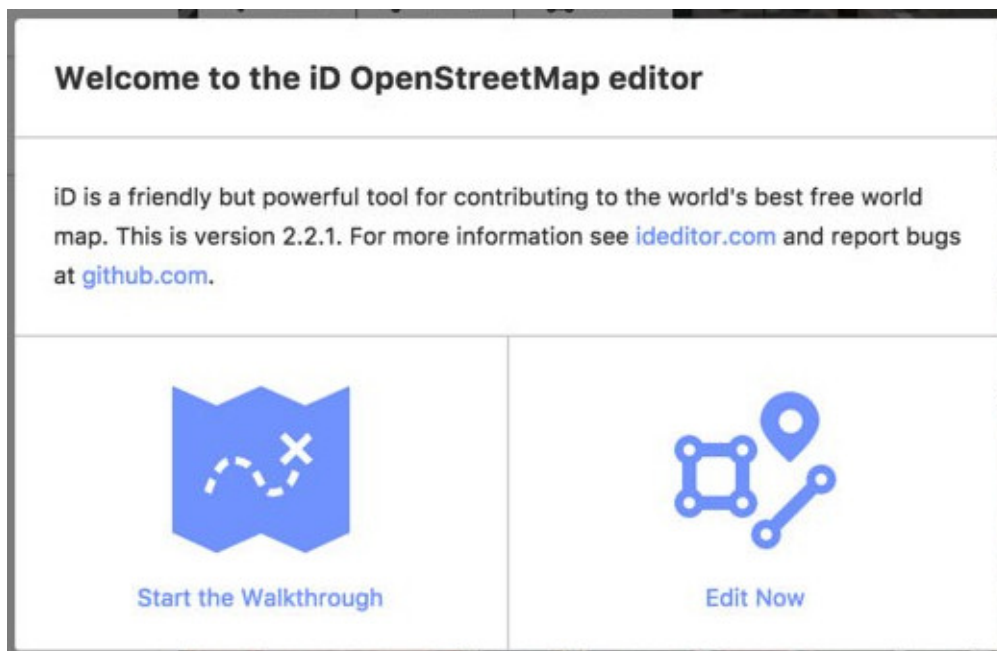


Figure 2. iD OpenStreetMap Editor

With the OpenStreetMap iD Editor you can create new objects and enter new data on these objects. So you are helping to extend and/or update the OpenStreetMap map.

It is recommended to click on "Start the Walkthrough", then you will be guided through a tutorial on how to edit correctly in OpenStreetMap. This tutorial takes about 10 to 20 minutes.

Before saving the edited data, OpenStreetMap always requires a so-called "changeset comment". For an event to be evaluated, it is important that everyone uses the same changeset comment. Ask the teacher or instructor which changeset comment you should use. An example of a changeset comment is "Outdoor-Event School X 2019".

Now you should know how to map.



If you need help, see [OpenSchoolMaps](#) under "Teaching Materials" in the "Edit OpenStreetMap" worksheet.



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