

## Introduction to JOSM

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### Introduction

JOSM is a free to download tool that provides extensive capability in editing OSM features, being very suitable for professional OSM editing environments such as your own. It can take a while to use a large part of it's potential, but starting and making fundamental edits using the software is relatively straightforward.

### Installation

To install JOSM simply go to <https://josm.openstreetmap.de/> be sure to select the **MacOS package**.

Once you have clicked on the MacOS package link you should then find **josm-macosx.zip** in your designated download folder. Please unzip the file.

Once unzipped it should appear in the form of a folder called **josm-macosx**. In this folder should be the JOSM application along with some documentation that's not important to you. Please move JOSM to your **Applications** folder, which should be easily accessible from the sidebar of the **Finder** window.

### Opening JOSM

When you first try to open JOSM you will get a message that says *"JOSM" can't be opened because it is from an unidentified developer*. Don't worry, this is normal.

Hit okay and go to **System Preferences** and then **Security and Privacy**. At the bottom of the window you will get a message that *JOSM was blocked from opening because it is not from an identified developer*. Please click on **Open Anyway**,

You will then get a warning message that *"JOSM" is from an unidentified developer. Are you sure you want to open it?*. Once again, please hit Open.

## Imagery

Upon opening the JOSM map window is empty by default. The first thing you should do is go to the imagery tab at the top. Please select the following by clicking on them:

**Bing aerial imagery**

**DigitalGlobePremium Imagery**

**DigitalGlobeStandardImagery**

**Esri World Imagery**

These are not by any means a standard set that we will always be using. This selection is simply for instructional purposes. The imagery we use will always very depending on the location of the relevant project.

## Layers Panel

When you have JOSM open on your left you will find a series of panels. By default the very top one will be **Layers** where you should see all of the imagery that you have just downloaded.

They follow a hierarchy in which the top layer gains priority in visibility. Experiment with hiding and moving them around.



The layers panel has five main buttons.

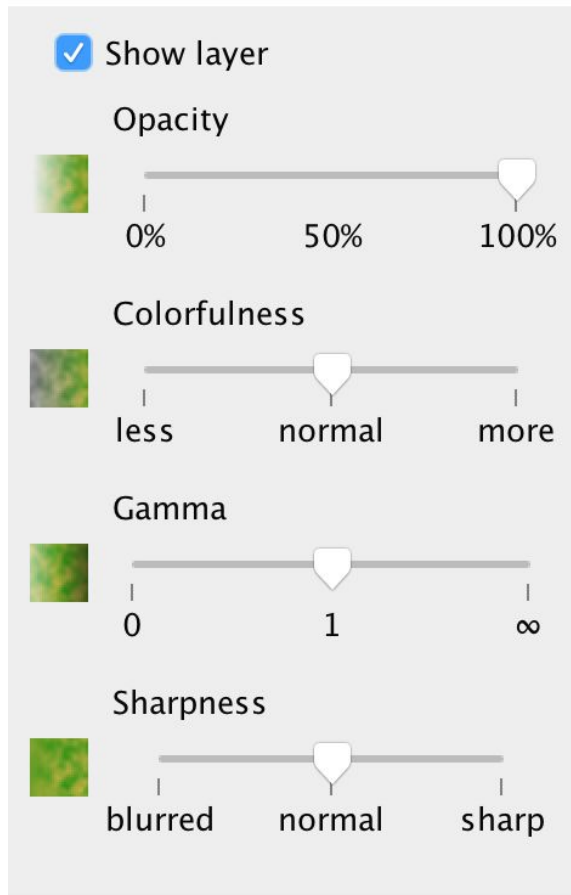
The up arrow moves layers up in the hierarchy.

The down arrow moves them down in the hierarchy.


The **Activate Selected Layer** button is not going to be relevant for imagery, but rather for data which we will get to soon. It selects which data layer you can edit at the moment.

The **Visibility** button gives you more options on how your layers are displayed.

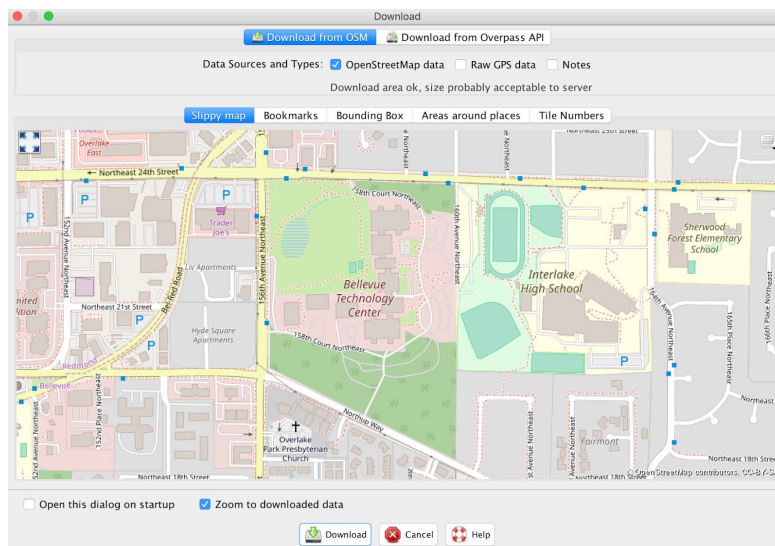
Please feel free to alter the settings as much as you want on an imagery layer in order to get a demonstration of what they do. Only **Opacity** however is likely to be very relevant in your work, controlling the transparency of a layer.



## Downloading OSM Data

You download OSM data by clicking on the Download button  in the top toolbar. For the most part the default settings on the subsequent dialogue will be enough for you so don't worry about the meaning of every checkbox, tab, or option right now.

Upon clicking on the button you should encounter a **Slippy map**, which more or less is just another term for online map.



This is not the data you will be downloading however. Click and drag on the slippy map and you should get a transparent red box outlining the area that you want to download. To download this area click on **Download**.

Keep in mind that OSM can contain a lot of data and if you make the square too big you will not be allowed to download your selected data. For our purposes however we should never be dealing with areas large enough that they cause problems.

Use trial and error to find an area of adequate size to download, and it does depend on the amount of detail the community has been leaving in the vicinity.

## Navigation

To zoom in and out of the map you simply scroll back and forth using your mouse *while your cursor is over the map window*.

To move around you *left click and drag* the map. On a Mac you can left click by pressing *control (^)* on your keyboard and then clicking and dragging.

## Editing Data

Once you have downloaded data you will be in **Select Mode** by default.

Any object which you select will then be brought up in the **Tags Panel**, which should be right below the Layers Panel. Here you will logically enough be able to see and edit all of the tags that the object contains.

In Select Mode you should also be able to move objects around and add nodes. A cross appears between every two nodes on a way. Clicking and dragging on this cross will automatically add a new node.

Please see the **Basic JOSM Editing** document for more detail