DISECTING THE OPEN STREET MAP

AN INTRODUCTION TO THE OPEN STREET MAP AND EDITING WITH POTLATCH

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1- INTRODUCTION TO THE OPEN STREET MAP

Type Openstreetmap.org / osm.org in the address bar of your Internet browser or the full address (http://www.osm.org / http://www.openstreetmap.org). A web page will open with a map of the world with different controls and menus, see below;
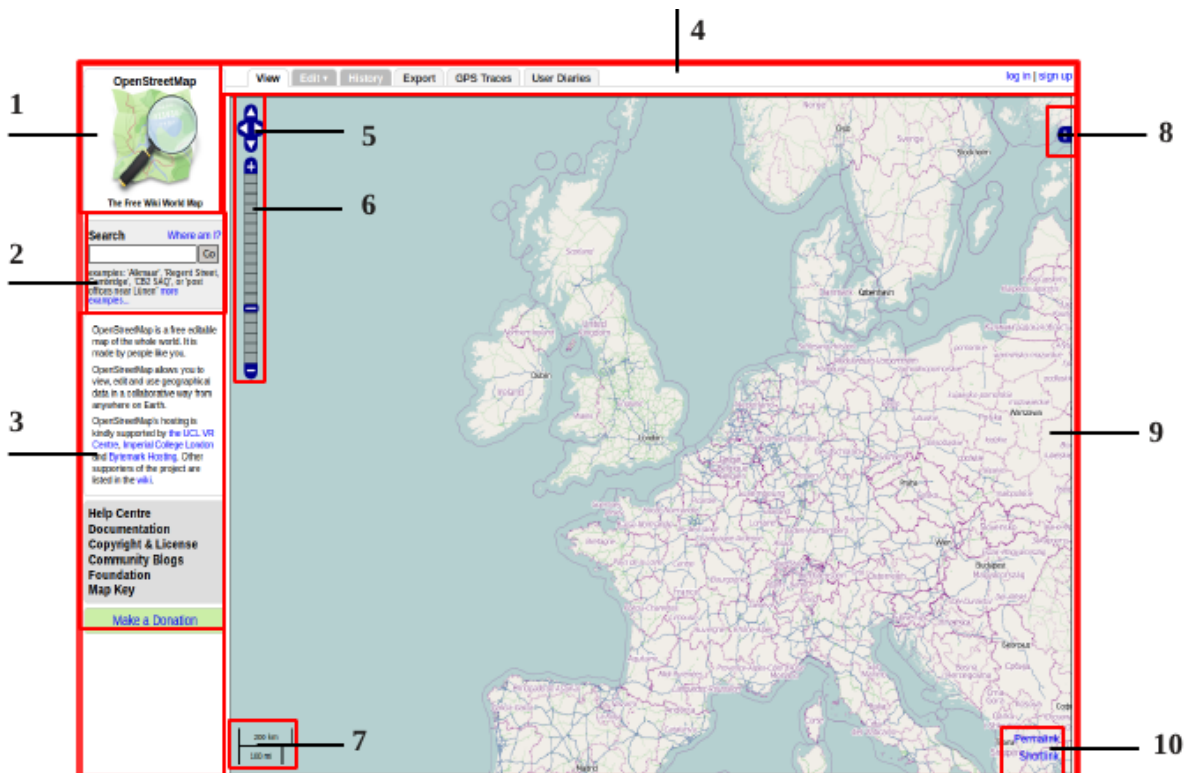
There are two major parts on this map, the left panel, and the map view. The left panel has the following features;

1- The osm official logo for use when referring to osm related resources.

2- The search box which is used when searching for a specific location, the location depends on the entries made in osm and other geonames on the web, just *type the name of the place and country* you would like to find then press enter or click the Go button, the search can also be used to show your current location displayed on the map when you click the "where am I?" link.

Nominatim works by generating addresses of osm points and geonames from The Geo-names geographical database which covers all countries and contains over eight million place names that are available for download free of charge. (http://www.geonames.org)

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3- This is a brief description of what open street is about, it's supporters, and links to more information about the running of the project. One of the most important link is the documentation, which will take you to the wiki page, the wiki page has most of the information that can guide you to completely understand what to do and what has been done with the openstreet map project, network and community.

4- The menu bar has 6 tabs for different functionality (changed to 5), as well as the login and sign-up links for existing and new users.

- View tab shows the interface of the open street map and you can navigate and use most of the above mentioned controls.

- The Edit tab is used when entering edit mode of osm where you can use the on-line software (potlatch 1and 2) or use JOSM/Merkaartor remotely to make edits and update the map. To edit remotely, the program (JOSM/Merkaartor) has to be running and the remote control option enabled, you do not need to be logged in, to edit remotely but with potlatch, you have to login to edit, however to upload changes made remotely the programs will require your osm user name and password.

- The history tab will show current and previous edits for a selected area on the map. It shows the change sets modified by the different users, as well as comments which help other users to identify those edits.

- Export tab can be used to download data from osm, data for a specific/selected area can be downloaded as a map image that you can print, or even download code that you can embed into a web page. There are more options that can be used with the map export such as resizing/scaling the image. After you have selected your desired dimensions for export, click on export to download your data.

- Gps traces tab is where you can see all the gps traces that have been uploaded with a gps device, here you can also upload your own trace and edit it is potlatch, or download and save a trace. You need to login with your OSM user name and password to upload a gps trace,,as well as editing other people's traces.

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- User Diaries contain a log of users' activities to which you can reply or comment.

- Login and sign-up links are for existing users to access their osm accounts, and for new users to create accounts with the open street map.

 The Map view

Here, you can move the map (panning), zoom in to desired locations, view different appearances for the map, create a link for the map, and use the map menu bar at the top. You can use the controls for those functions before, and after logging in. The controls include;
5- Panning
6- Zooming
7- The scale bar at the bottom left corner.
8- The + sign(rendering) on the top right corner
9- Main view
10- The permalink and shortlink at the bottom right corner.

5- To pan is to move the map, left-right or up-down when trying to locate an area of interest. Use the symbol mentioned, or you can also hold down the left mouse button to move left-right and up-down.

6- The zooming tool enables you to have a better, clear view of an area, zoom in up to the maximum (+) level for all the features mapped in that specific area, zoom out to the minimum level (-) to have a view of the rest of the areas on the map. The scroll wheel of the mouse can also do the same functions of zooming in and out of the map.

7- The scale bar shows the approximate location of a geographical location in terms of meters and feet, it keeps on changing as you zoom in and out of the map.

8- The plus sign (changed to a drop down), when clicked, reveals the base layers and overlay options for the map.
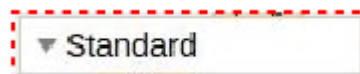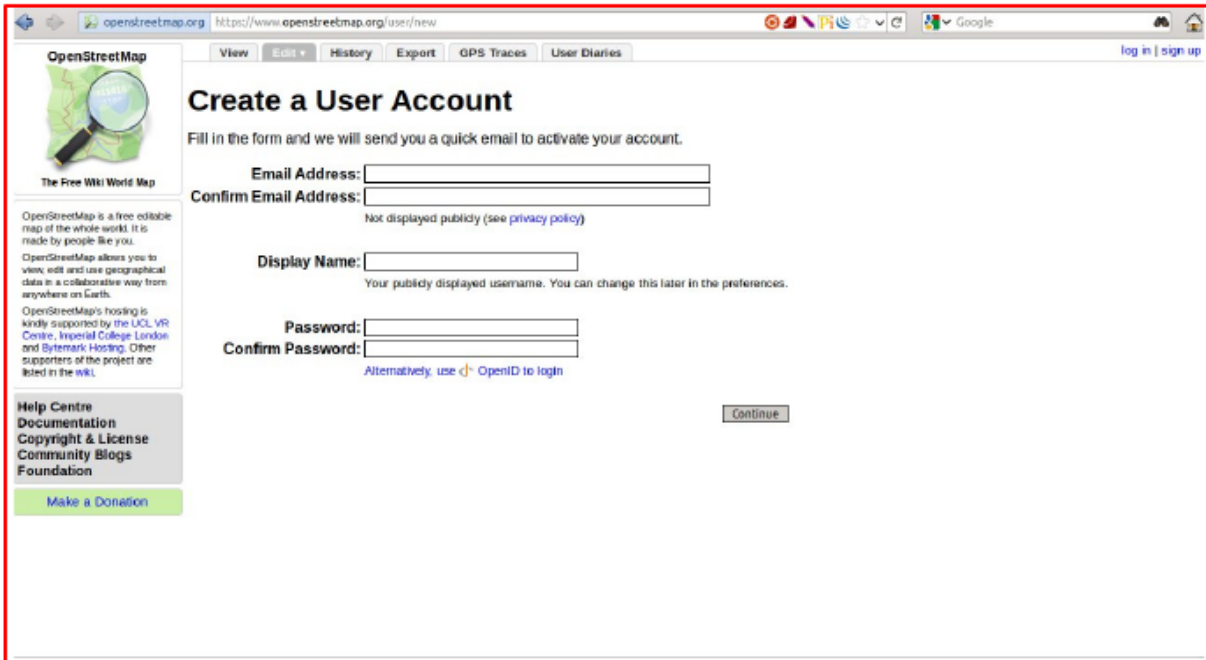

The base layers are used to build the open street map interface. Select the different options to view the appearance of the map when various layers are selected.
The overlay has a data layer which will show the different ways of rendering the open street map as a cycle map, transportation map, standard and map quest open.

9- The main view is where the map can be viewed, from here you can locate, and be able to find any country in the world (open street map is a map of the whole world), use the controls to locate visible features like boundaries, rivers, and very many other features.

10- The Permalink and shortlinks are at the bottom right corner of the map view window. They are used to provide a link to a selected location on the map. Double click or zoom into an area that you want to reference, click on permalink or shortlink and copy the text in the address bar. **3**

Creating a user account

You will need a valid e-mail address to create an account on the open street map website, where you will be presented with a form to fill, along with a display name and a password, further instructions are sent to the e-mail address you have provided. If you have an e-mail address with one of the open id service providers listed on the sign in form, you can use it to sign into OSM and begin editing.

The next part is going to cover how to start editing and contributing data to the open street map with the on-line editor (Potlatch) after creating and logging into your account.

INTRODUCTION TO POTLATCH 2, THE ON-LINE OPENSTREETMAP EDITOR.

Potlatch 2 is the OpenStreetMap editor you get when you click on the 'Edit' tab of the osm website. You can use it to add new roads, railways, rivers or other features to the map; and to change existing ones.

Online means that you do not have to download or install anything, as long as you have a good internet connection, and a web browser with flash player.

Potlatch 2 was rewritten from the original Potlatch, and it includes a What You See Is What You Get (WYSIWYG) rendering.

How to run Potlatch

1. Open your (Flash-enabled/Gnash/SWF-enabled) browser , and go to http://www.osm.org.
2. Login .
3. Search, locate and zoom into the area you want to edit.
4. Click the "Edit" tab, or hover the mouse over the edit tab and select potlatch 2, then potlatch will be launched within the browser

Note: Incase the browser is not flash enabled, potlatch 2 will not be launched, but there will be a link on the page from where you can download and install adobe flash player.

The Interface

When you open potlatch for the first time, there will be an interface (see below) with tools to help you edit the map, a help window will in some cases also be displayed with instructions on how to use potlatch.

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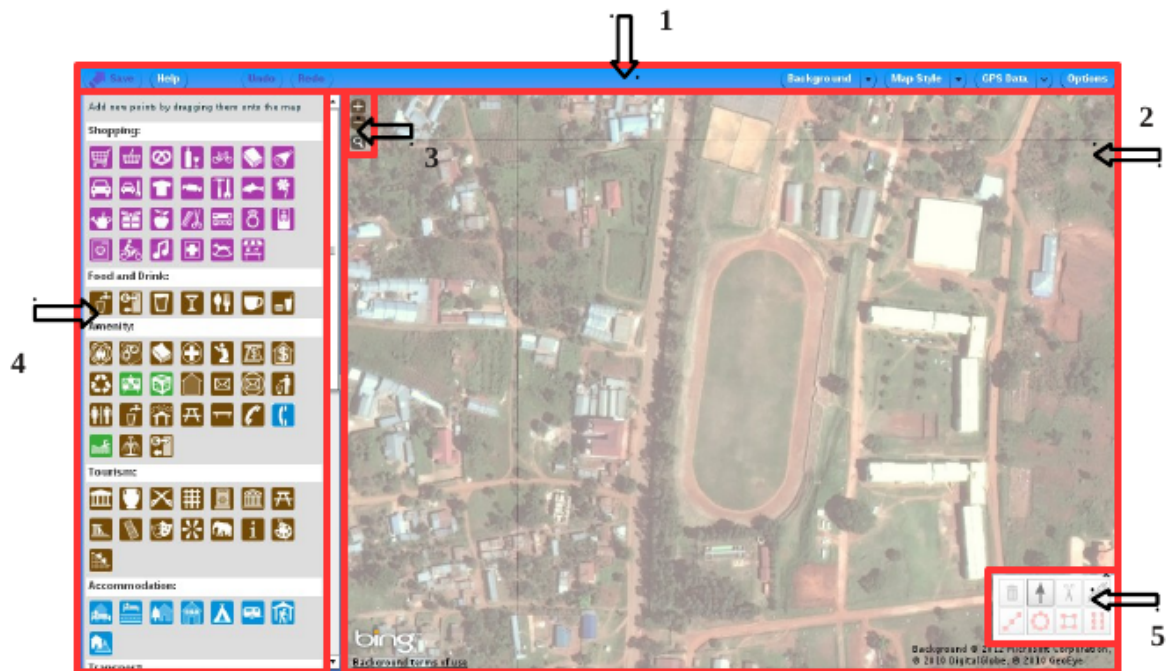
The potlatch interface is organized the same way as the osm main page, it has the left panel, menu bar, the aerial/satellite view, the toolbox, zoom in/out with the search icon, which all have different functionalities;

1 – The Menu Bar

It has controls that are used while editing data in potlatch, these include the save button, which is inactive when there are no changes, it becomes active once changes are made in potlatch. Saving edits for the first time brings a text box for description of a user's changes that are to be made in an editing session, the changes are recorded in a "change set".

The help button brings a window with some tips and a user guide on using potlatch, the help window sometimes comes up when potlatch is opened for the first time to edit. Undo and Redo buttons become active when you start editing and they are used to reverse and resume someone's edits.

The background tab, has a drop down that enables selection of different layers over which to edit in potlatch such as (mapnik, osmarender, opencycle, mapquest), and the bing aerial imagery. The background is not editable.

The map style changes the potlatch editing nodes and lines appearance between wire-frame, enhanced, opencyclemap, network and the default potlatch, you can try editing in those different map styles.

The gps data tab enables loading of GPS traces uploaded in a gpx file by the user.

The options tab provides you with other settings for potlatch, such as displaying the tool box, showing the mouse latitude/longitude, and so on.

2 – The Satellite / Aerial View (Bing Imagery)

This shows features from the overhead pictures taken from a plane or satellite, you need to zoom in to view features more clearly, in some areas the satellite imagery will disappear beyond certain zoom levels.

The satellite image, after zooming in between levels 17 – 19 acts as a background which shows visible features that can be used as a reference while editing, such as buildings, land use, roads, among others, that need to be tagged and named in order to be represented on the map.

Areas that do not have the satellite imagery available will be blank, when zoomed in up to the above levels. The Bing maps platform/imagery is provided by Microsoft.

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3 - Zoom (in/out) and Search icon

Use these controls when you want to zoom in and out of an area that you would like to edit (plus (+) sign for zooming in, and minus(-) sign for zooming out), depending on the speed of the Internet connection, zoom step by step/level by level, wait for the data in that area to load, then start editing.

The search icon enables you to find a different place of interest, that can be edited without leaving the potlatch editing interface, it presents you with a dialogue where you can search for an area, and you will receive results from which to select where you would like to edit.

4 – Editing panel

This panel has editing tools that can be used by simply dragging and dropping icons to their corresponding features, the result is a node with a name that describes what the icon represents. The simple editing mode presents a user with graphical icons that show images that relate to different features. The icons (images) show how the named features will be rendered (showed) in the osm standard mode (view).

The features are grouped according to their categorizes such as: shopping, food and drink, amenity, tourism, accommodation, transport, water, and so on.

4.1 – Advanced Editing
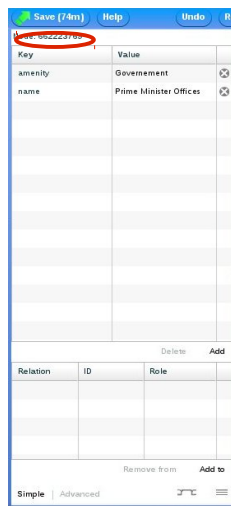
Another way of editing in potlatch is by using the advanced panel, where you just name features with a key and value attributes, click on add and you will be able to edit a feature by giving it values. Information about how the features are named can be searched for and found on the osm wiki page. The advanced editing panel enables naming of more that one attribute for a feature. Double click on the name of a feature to edit it.
You can also name features as relations that are associated with different features like bus routes, train routes, and so on.
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Another important feature in the advanced editing mode of potlatch is that you can be able to know the user who plotted a feature (way/node), and contacting them, simply by selecting the way/node, and double clicking on the name of the node at the top left corner of the panel (highlighted in red).

5 – The Tool Box

The tool box assists you while editing, it has controls which help in correcting features to be accurate. You can cut, merge, delete, straighten and join nodes, make them round, square, parallel, and reverse the direction for different features.

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Editing points of Interest

Before you begin editing, the first rule you need to know is the use of proprietary data. Data from copyrighted maps or any other proprietary data is strictly prohibited! Copying, tracing, or any act of reproduction of copyrighted work is not allowed!

Please note: Linear features such as streets, footpaths, railways, and building outlines may be referred to as ways.

You can edit points such as those for shops, health centres, schools, and the like by simply double-clicking at the right location.

- Select, to highlight the point.
- Drag the point around with the mouse
- Press Delete (or Backspace) to remove the point.
- Press Esc to revert all your changes.

To insert a new node on a way: Click on the way to highlight it, then Shift-click at the desired place on the way and a new node will be created, to insert a new single node: Double click at the desired place for a new node, then to delete, click on the node to highlight it, and Press Delete or Backspace.

Drawing a new way

A way is a line that you draw on the map: it might be a road, a railway, a river, a fence, a boundary or a power line. Each way is a series of joined 'points' (or nodes). Draw the ways using your own knowledge of what features exist, using track logs of journeys you have made with a GPS receiver; or by tracing from the satellite photo background. (Bing[! Aerial Imagery](#)).

Drawing a way:

- Click on the map to start a new way.
- Then click at each successive point. If you make a mistake, press Delete (or Backspace).
- To finish, double-click; or press Enter; or click the start point again to make a loop.

If you make a mistake:

- Press Delete or Backspace (while drawing) to remove just the last point.
- Press Esc to cancel the whole way.

To extend a way:

- Click on the first or last point to highlight it. (or press shift and click). A small black dot may appear next to your cursor.
- Move the cursor in the direction you want to extend the way. A black line will extend from the last node to your cursor. Click to create a new node.
- Keep drawing points to continue to extend the way.
- To finish, double-click on the last node or press Enter. If you are making a loop, click the start point again just once.

To delete an entire way or segment of a way:

- Click on the way to highlight it, and press Delete or Backspace.

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Undoing mistakes

If you make a mistake while editing, you can change it before it is saved to the server, or cancel it entirely with the Esc key. But if you've saved it and realise you've made a mistake, you can click the undo tab on the menu bar, or press 'Z', to undo a change.

Press 'Esc' when a way is selected to cancel *all* your edits to this way, and restore the last saved version.

Realigning the Background Layer

With background images, sometimes you'll notice they are not aligned with the OSM data. If this is the case, hold down Space on your keyboard and drag the background image to its correct location in the map view.

GPS data / My tracks

Selecting the GPS tab on the menu bar will display gps traces, and on the drop down arrow gps data will display thin blue lines representing all gps tracks in the area. Selecting My tracks will enable display of a dialogue with your own tracks that you loaded into OSM via the GPS traces - upload a trace function (http://www.openstreetmap.org/trace/create), and selecting clear will switch gps traces off in the potlatch 2 editor or go to Background -> Vector file... and remove the tick from GPS.

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