

How to access and display data from OpenStreetMap



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OpenStreetMap enables users to access free geographic data and mapping tools. There are a few different ways to access GIS data from OpenStreetMap, this tutorial will take you through the second option below:

- 1) You can either access the data from one of two websites that process and make select OpenStreetMap data available on a regular basis
 - Geofabrik -- <http://www.geofabrik.de/data/download.html>
 - CloudMade -- <http://downloads.cloudmade.com/>
- 2) Or extract the data yourself using ArcGIS Editor for OpenStreetMap and download data directly to ArcMap. Once you have defined your area of geographic extent, the **Download and Symbolize tool** essentially downloads and creates a feature dataset of OSM data for you in ArcMap. You can find more information [here](#).

It is also possible to create maps through the web-based tools located at <http://www.openstreetmap.org/>.

Things to know:

1. OpenStreetMap limits the amount of data you can download at one time.
2. You must use a basemap or reference data to define your location before accessing OSM data. This is critical for the Download and Symbolize tool to work.
3. On the lab computers, the tools for OpenStreetMap are already installed. If you are working at home or in a different location, you may need to install ArcGIS Editor for OpenStreetMap yourself. This contains the Download and Symbolize tool. Follow the default download and install at http://esri.com/arcgis/arcgis_editor_for_openstreetmap/.

Creating a geodatabase

This tip sheet will use a section of Kolkata, India as a sample location for download OpenStreetMap data. Data saved from OSM is stored as a **geodatabase** (.gdb). You need to first create this file.

1. Start **ArcCatalog** and find your desktop in the Catalog Tree under *Folder connections* - C:\Documents and Settings\yourUTLNname\Desktop. (If you can't locate your desktop

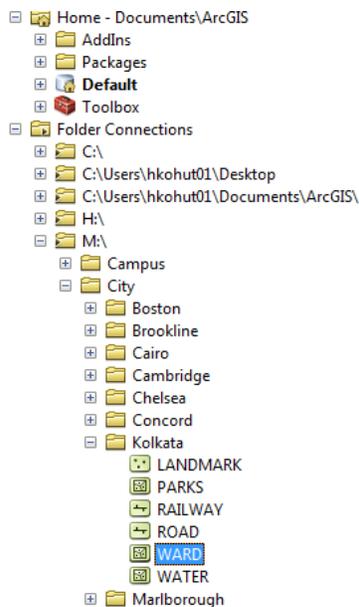
that way, you can create a connection by clicking the **Connect to Folder** button () in the toolbar, and enter C:\Documents and Settings*yourUTLNname*\Desktop, then click **Ok.**)

2. Right click on the *Desktop* and choose **New - File Geodatabase**. A new geodatabase folder will be created with the extension *.gdb*
3. Rename this geodatabase, e.g., *Kolkata*.

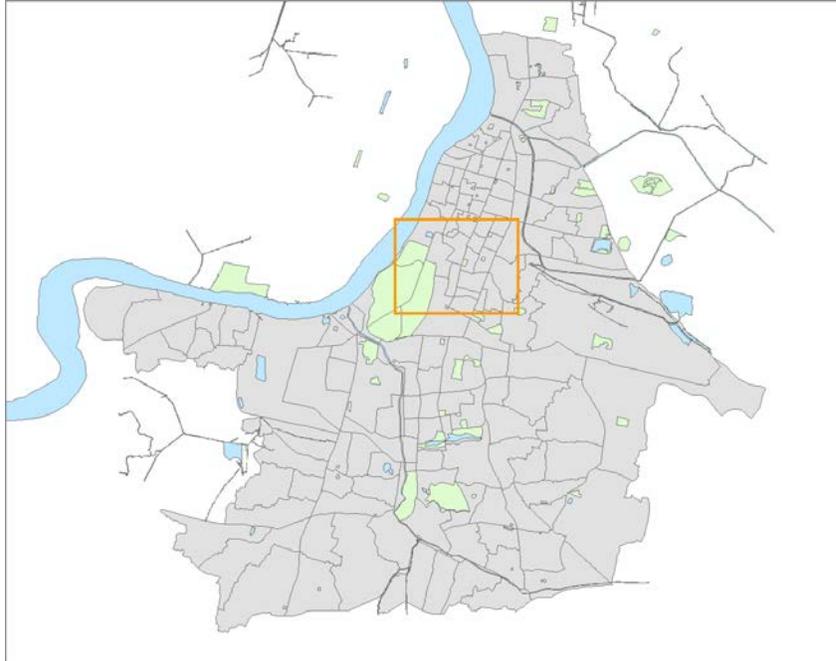
Preparing to access OpenStreetMap data

Now you're ready to add Kolkata, India data to ArcMap. This will serve as an indicator location for the ArcEditor Download and Symbolize tool when you are accessing OpenStreetMap data. The data is located on the M drive at M:\City\Kolkata

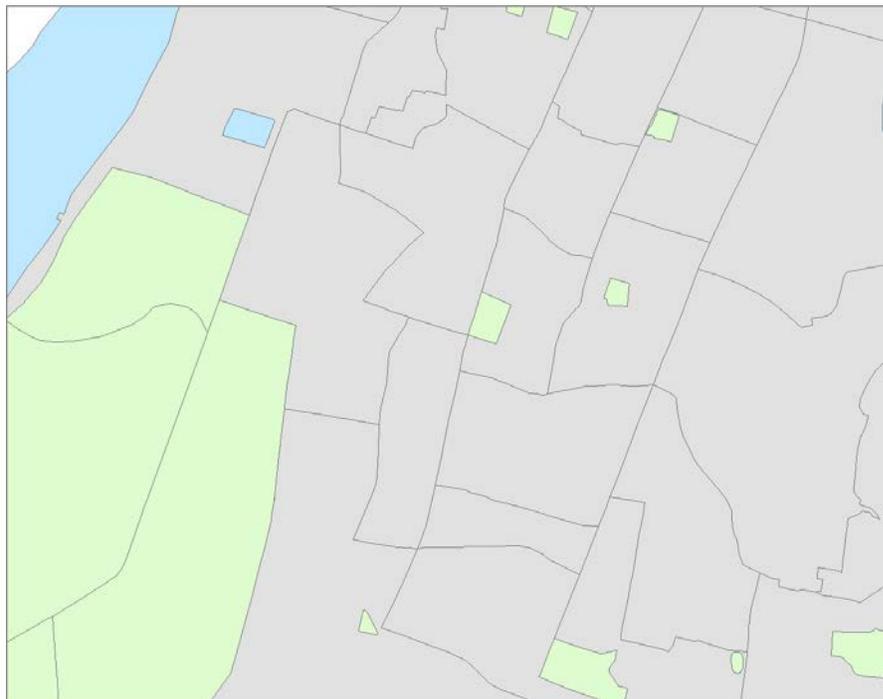
1. First, add a few layers to ArcMap to function as a base for your OpenStreetMap data. In ArcMap, use the **Add Data** button to navigate to the Kolkata folder, and to add a few layers. I've selected 'Parks' 'Water' and 'Ward.'



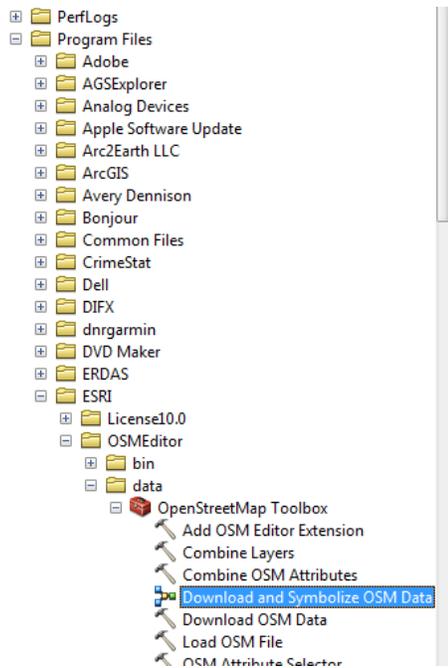
2. With those three data layers added, zoom to an area to focus on. OpenStreetMap data works best for small areas at a time. The area for this exercise is outlined in orange below.



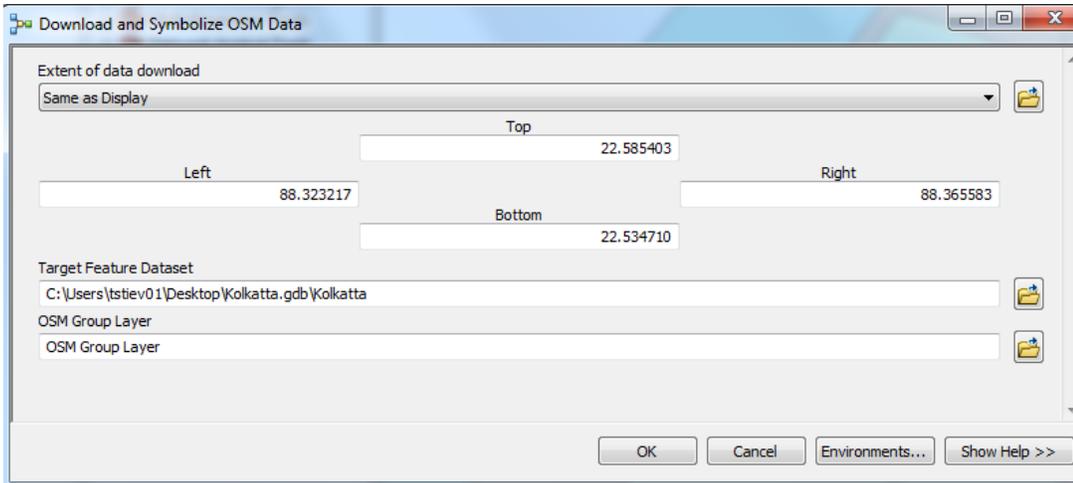
3. Once you've done that, your map should look something like this:



4. Next open the ArcCatalog window in ArcMap, and navigate to the **Download and Symbolize OSM Data** Tool. It can be found by going to C:\Program Files\OSMEditor\ESRI\data\Download and Symbolize OSM Data



5. When the tool opens, fill out the dialog box as follows. In Extent of Data download, select **Same as Display** and save it in the **.gdb** that you just created. Don't forget to save your data with a meaningful name and in a location you can find again.



6. Click **Ok**. Be patient, because it may take a few minutes for the data to download.
7. OSM Group Layers will appear in your Table of Contents, and the data will appear as points and symbols on your map.

