Using Syracuse Community Geography’s MapSyracuse

MapSyracuse allows the user to create custom maps with the data provided by Syracuse Community Geography. Starting with the basic template provided, you can change how the map looks and choose which datasets are shown. MapSyracuse gives you an option to either print or share your map with a link. The following is a basic tutorial of the buttons and tools utilized by MapSyracuse. Also included is a list of common cartographic terms and their definitions.

Note: This tutorial was created using MapSyracuse in Google Chrome. Some tools may look slightly different when viewed in other browsers. Last updated in March 2014.

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**Button Overview**

**Zoom In.** Located near the upper right corner of the map. This tool will zoom in based on where the map is currently centered. Drag and position the map by holding down the left-click button on your mouse (will appear) and moving the map to the desired position. Then, press . Alternately, you can scroll up using the scroll tool in the middle of your mouse. Or, double-clicking on a certain location will zoom in centered on that location.

**Zoom Out.** Located near the upper right corner of the map. This tool will zoom out based on where the map is currently centered. Drag and position the map by holding down the left-click button on your mouse (will appear) and moving the map to the desired position. Then, press . Alternately, you can scroll down using the scroll tool in the middle of your mouse.

**Pan.** Allows you to “grab” the map and move to another area of visibility. This tool makes it possible to move your map view in any direction, as though shifting your gaze on a hardcopy map detail. Use this tool to move the map around. For example, if your map is centered on Downtown Syracuse, and you want to place Syracuse University at the center of the map, you would use this tool. Use pan by holding down the left-click button on your mouse and moving the map as desired.

**The Toolbar.**

The toolbar is where you will be able to customize your map. The toolbar is made up of the Legend, Print, Layers, Basemap, Measure, Share, and Search buttons.

**Legend Button.** This button will show or hide the map legend. See the “Legend” entry in the Map Jargon section for more information regarding the map legend.

**Print Button.** Clicking on the Print button will create a drop-down menu, at left. This menu allows you to select various printing options. Highlight and select an option from the menu, and the notification will appear where the Print button was previously located. After some time, the notification will replace the notification. This may take a while! To access your map in a printer-friendly format, press , and the map will pop up in a new window.
Layers Tool. Use this tool to access the different datasets available on MapSyracuse. Clicking on this tool creates the following drop-down menu, which lists all the data available through MapSyracuse:

Notice how some of the layers listed have a check mark in the box to the left of their name. These are the default layers that appear when MapSyracuse is launched, visible on the legend on the far left side of the screen.

To add or remove layers from your map, check or uncheck the box next to the layer name. For example, if you would like to remove the location of “Public Libraries in Onondaga County” from your map, uncheck the box. To add “Nursing Homes” instead, check the box next to the layer name. When you complete this action, the appropriate changes will be made on the map and the legend.

Basemap Tool. This tool allows you to choose the appropriate background for your map. MapSyracuse provides 9 possible map styles to choose from. The default is the “Streets” setting, but Imagery, Imagery with Labels, Topographic,
Terrain with Labels, Light Gray Canvas, National Geographic, Oceans, and OpenStreetMap are all also available. You may select your basemap by clicking on the **Basemap** icon, and choose from the drop-down menu, at left.

After choosing a basemap, your map will change to reflect your choice. **If you choose a new basemap, it may take a few seconds to load.**

### Measure Tool

This tool allows you to calculate locations, distances, and areas on your map. Clicking on the Measure Tool creates this pop-up window, which you may drag anywhere on the screen.

The tool allows you three different type of measurements. The option to the left, a ruler with a green shape behind it, measures area. The option in the middle, the ruler with two arrows above it, measures straight-line distance. And the third option, the globe on the right, identifies a geographic location.

#### Different Ways of Using the Measure Tool

<table>
<thead>
<tr>
<th>Sq Miles</th>
<th>Measuring Area</th>
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</thead>
<tbody>
<tr>
<td>Acres</td>
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<tr>
<td>Sq Miles</td>
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<td>Sq Feet</td>
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<td>Sq Meters</td>
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Clicking on the Area Option will allow you to determine the area of any polygon you draw. The default option for units is square miles. Clicking on the "Sq. Miles" text will produce the drop-down menu (at left) where you can choose the units for your measurement.

To measure an area on the map, make sure you have clicked the Area button. Next, place your pointer on the map where you would like to begin your measurement, and click. This first click begins your measurement. Move your pointer to another location on the map. Notice the blue line that generates along your cursor’s path. Click at the next vertex of the area which you wish to measure. Because you are measuring area with this tool, you need to click at least three vertices. Continue clicking at the edges of your desired polygon until you have achieved your desired shape.

When completed, double-click, and the pop up window will generate an area of the shape in the pop-up window in your desired units.

*Note: You may also change the units after you measure. Follow the steps to do so as described above.*
Note: At this time, MapSyracuse only supports polygonal, vertex-based measurement. Exact areas of shapes such as circles and ovals cannot be determined on the site. To approximate circular area, create a near-circular polygon with many vertices.

To cancel the polygon you have drawn, click again.

**Measuring Distance**

Clicking on the Distance Option allows you to measure straight-line Euclidean distance from a starting point to a finishing point on the map, with any number of points in between. The default units for measurement are miles, but clicking on the “Miles” text will activate a drop-down menu (at left) with other options.

To measure distance on the map, make sure you have clicked the Distance button. Next, place your pointer on the map where you would like to begin your measurement, and click. This first click begins your measurement, and a green flag should appear. Move your pointer to another location on the map. Notice the blue line that generates along your cursor’s path. If you would like to end your measurement here, double click, and another green flag should appear. The Measure pop-up box will generate the distance corresponding to the line you have drawn. If, however, you would like to continue measuring but in a different direction, only click once. A green flag will still appear but you will now be able to continue measuring in a different direction. When you have finished, double click, and the pop-up box will generate the distance.

Note: Since the Distance Tool only measures Euclidian (straight-line or “as the crow flies”) distance, be careful! If you wish to measure distance traveled, do not simply click on your starting point and then ending point. Instead, move along the road network, clicking each time you make a turn. This will give you a more accurate measurement.

Note: You may also change the units after you measure. Follow the steps to do so as described above.

To cancel the line you have drawn, click again.

**Determining Location**

Clicking on the location option allows you to determine the coordinates of any point on the map. The default units are decimal degrees, but clicking on the “Degrees” text will allow you to switch between decimal degrees (labeled Degrees) and degrees/minutes/seconds (labeled DMS) on the drop-down menu at left.

To determine your location on the map, make sure you have clicked the Location button. The pop-up Measure box will automatically generate latitude and longitude based on your pointer’s location. Clicking on a specific point will generate a green flag at that location, and the coordinates for that point
will display in the Measure pop-up box. You may now move your cursor around freely without changing the latitude and longitude displayed.

If you have clicked on a specific point and created a green flag, click to remove its coordinates from the Measure pop-up box.

**Note:** Northern latitudes and eastern longitudes are displayed as positive numbers. Southern latitudes and western longitudes are displayed as negative numbers.

**Note:** You may also change the units after you choose a location. Follow the steps to do so as described above.

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**Share Tool.** This tool allows you to share your custom map as a link. Clicking generates a drop-down menu (at left) with three options: Email, Facebook, and Twitter. Clicking one of these three options will redirect you to the applicable site and provide you with a link to share with others.

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**Find Tool.** This tool allows you to search an address or place, and MapSyracuse will suggest a list of options.

A drop-down menu (pictured at left) will appear with suggestions once you begin typing.

If you see the option you are looking for, you can click on the suggestion and the map will center on your selection, with a pop-up box appearing (pictured below).
If your option does not appear, continue typing until you have entered all of the information you have. MapSyracuse will calculate the location closest to your input. If this is incorrect, you will be given the option to select from other potential matches.

**Show Inset Button.** Pressing this button will generate an inset map giving some context to your map’s focus. Pressing will create a map like the one shown at left in the top right corner of your map. The gray area is the portion shown on the main map. Pressing will hide the inset map.
Map Jargon

MapSyracuse uses terminology that many people are comfortable with, but there are some terms that may be unfamiliar.

The Legend. Also known as a key, the map legend gives the user a guide to the symbols featured on the map. MapSyracuse utilizes an automatically updating legend; when you change what is shown on the map, the legend changes along with it. The legend shown at left is the default that appears whenever you open MapSyracuse. Click the “X” at the upper right hand corner to hide the legend, and click to show it again.

Note: At this time, the user is unable to change the order of items appearing in the legend.

Layers. A layer in MapSyracuse is a specific spatial dataset visualized in symbol form on the map. Layers appear in the legend on the left of the screen. As an example, Public Schools, Public Libraries, and Hospitals in Onondaga County are all individual layers. You can choose which layers are shown on the map and the legend by using the Layers Tool.

Basemap. A good way to think of a basemap is as the bottom layer of your custom map. All other layers shown in MapSyracuse are always “on top” of the selected basemap. Different types of basemaps show different types of data: some simply show streets, whereas others display elevation or aerial imagery. The basemap can be changed by using the Basemap Tool.

Polygon. A polygon is a two-dimensional figure created by connecting a finite amount of straight line segments. The points where these line segments connect are called vertices (singular: vertex). Squares, triangles, rectangles, and hexagons are all polygons. Technically, a circle is not.

Scale Bar. The scale bar indicates the ratio of units on the map to units on the ground. Check the scale bar to see how zoomed in or out your map is. The smaller the number on the right hand side of the scale bar, the more zoomed in you are. The example at left shows the distance on the map equivalent to two miles.

Inset. Insets are generally used to give the reader some sort of context as to where the map is focused. A map of Syracuse, for example, may include an inset map of Syracuse’s location in Onondaga County or New York State.