

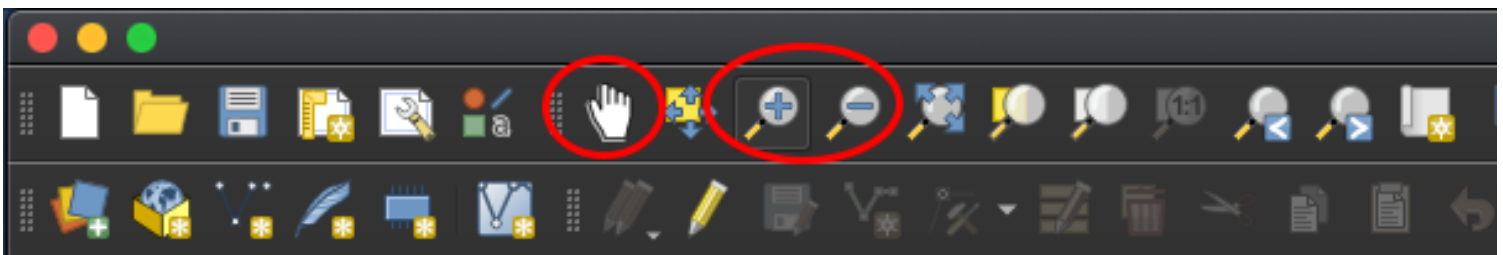
QGIS Basics II: Navigation and Visuals

Our main method of navigation is the **Pan Tool**. This is indicated by a hand symbol in the top toolbar. Using this tool, you can click, hold, and drag in any direction to pan the map.

You can zoom in and out using the two **Zoom** tools, indicated by magnifying glass symbols. To zoom in you can either click, or you can click and drag to create a box that will highlight an area. Letting go will zoom in on the highlighted area. If the mouse you are using has a scroll wheel, you can also zoom in and out using it.

QGIS also saves each zoom state, which allows you to move “back” or “undo” with the left symbol, and forward with the right symbol.

As you zoom in and out you may the **Scale** at the bottom of the program changing. You can also manually set the map scale. You can also click the options arrow to see a pop up list of preset scale options.

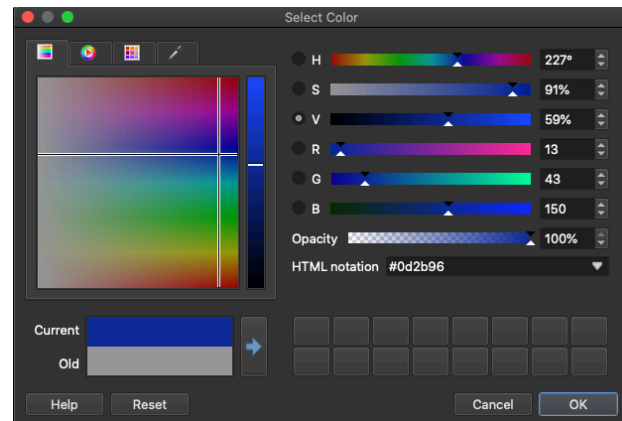
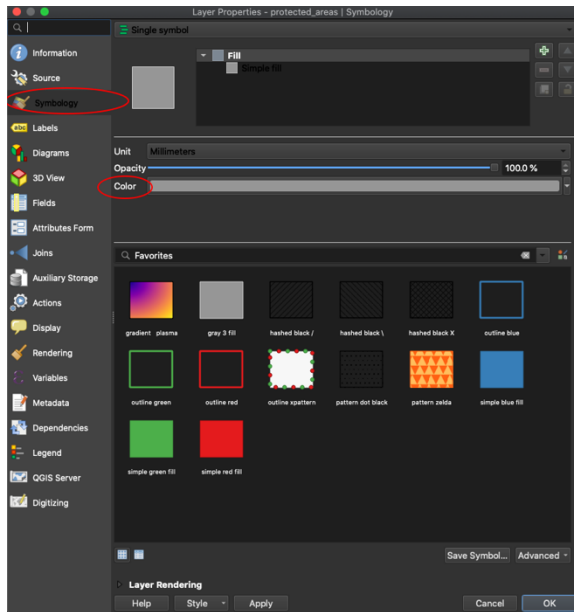


Changing the visuals of your map:

The **symbolology** of a layer is its visual appearance on the map. One of the major strengths of GIS over other ways of representing your data is the control over these dynamic visual representations. The visuals of your map are also crucial to ensure that the end user can easily see what your map represents.

In this example we're going to change the color of our **protected_areas** layer. Right click to the layer name and select **Properties...** (You can also double click on the layer name)

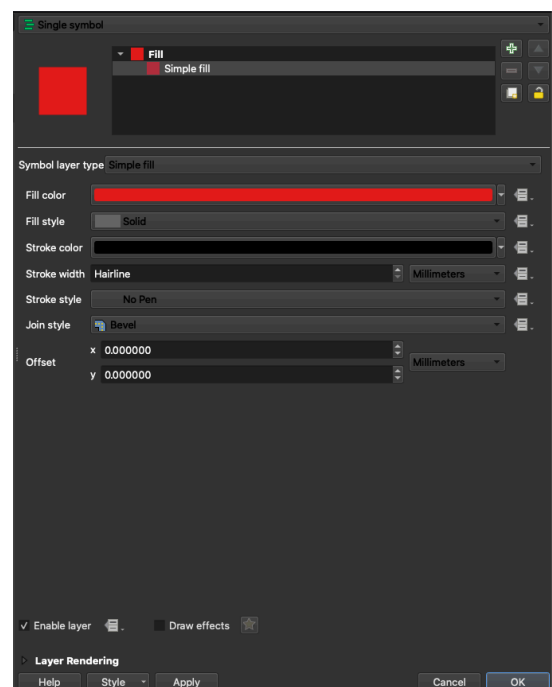
Here you'll have a few options. You can click the **color** button to bring up a color menu for manual control or you can choose one of the presets below. When styling your layers and choosing colors, think about how clear things will be to the end user. Choose colors that stand apart from one another and think about how users might perceive certain layer. For example, a light blue would best be used for the river layer as opposed to the road layer.



Now we can change the symbol structure so our map is a little less cluttered. In the same **Symbology** tab, select **Simple fill**. These options will allow you to change your layers with a little more specificity. You can change the **Stroke** and **Fill** settings individually.

The **Stroke** is the outline of a given shape and the **Fill** is the color it is filled in with. For example, if you drew a circle in pencil, but colored it in with crayon, the pencil would be the stroke and the crayon would be the fill.

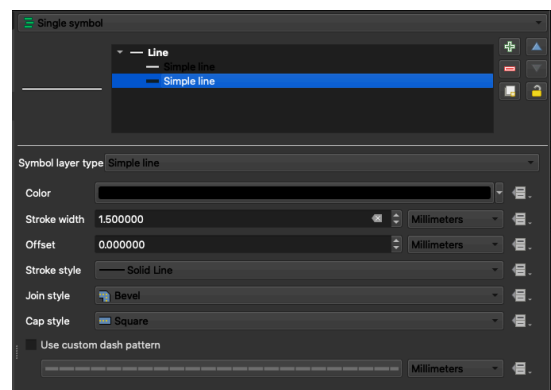
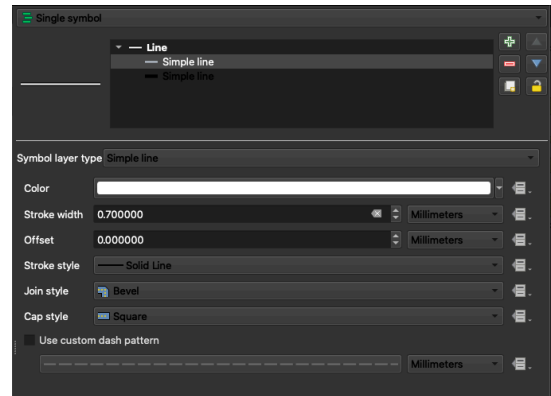
You can change the look with the **Stroke Style** setting, No Pen, as pictured will give you no stroke at all. **Stroke Width** will effect the size/thickness of the stroke around an object.



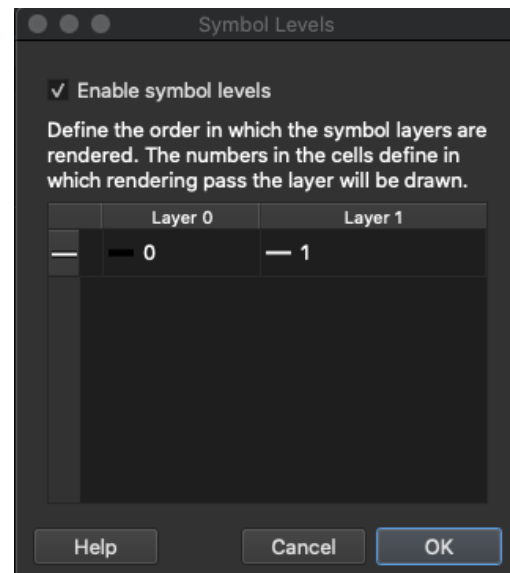
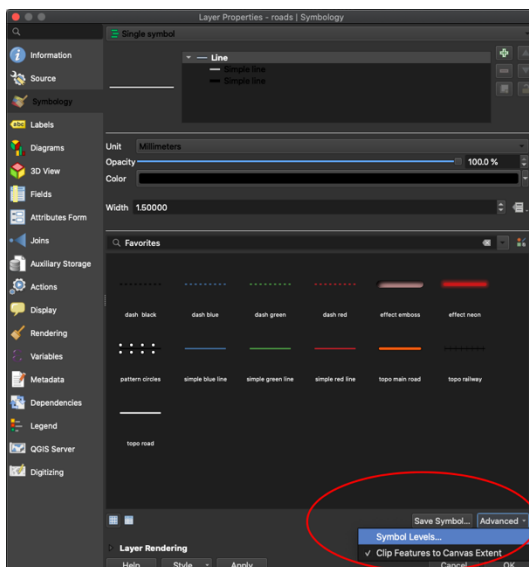
Here you can also change your **Fill style**. This is useful if you have any layers that overlap or want to add some patterning to your layers. You can also add fill layers to give a little more depth and texture.

In this example, we're going to make our **roads** layer look more street like. To do this, we're going to go into our **Layer Properties**, add an extra **Symbol Layer**, and give the like a **Stroke width** of 1.5 and make sure it's black. We'll make the other layer white with a **Stroke Width** of about half, .700.

Unfortunately, now we have lines that overlap one another where the streets cross. To fix this we'll have to sort the symbol layers and control the way in which they are rendered. Back in our **Properties**, with the top "line" selected, click **Advanced** and then select **Symbol Levels...**



In the **Symbol Levels** dialog box, choose to **Enable symbol levels**. This allows you to define the order that the layers are rendered. The black line is already set to 0 and the white to 1, which is perfect for our current layer, so no further changes outside of enabling the option, need to be done.



Before and after should look something like this:



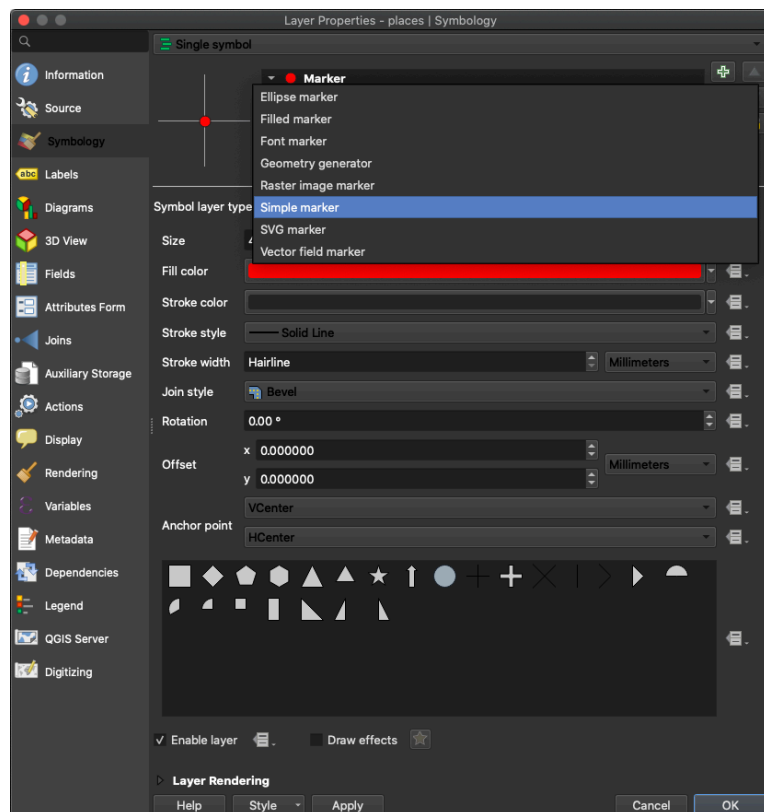
Outside of fill colors and patterns we can also use different symbol layer types to customize even further. Each type of vector (point, line, and polygon) have their own set of symbol layer types.

Head over to the **Layer properties > Symbology** of our **places** layer.

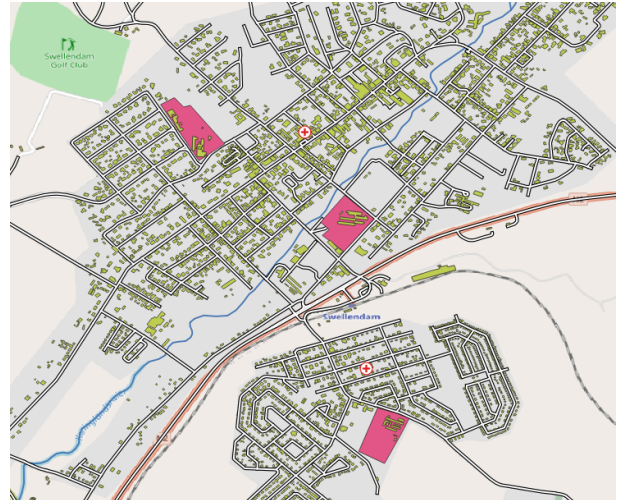
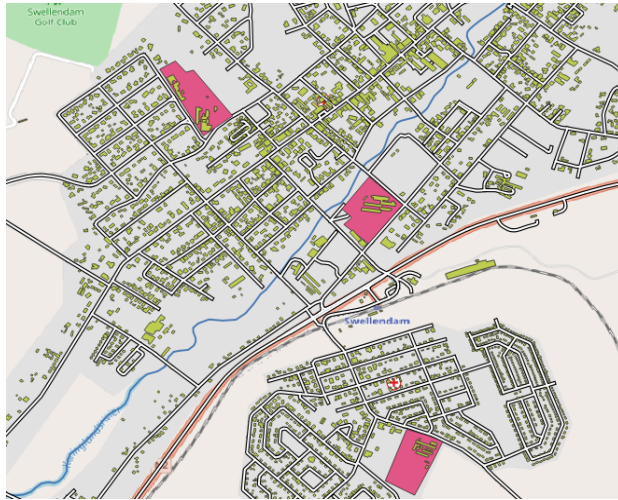
Here you can access the different options from the **Symbol Layer Type** drop down menu.

You can change the fill and stroke colors for simple points or use small SVG images. There are preset symbols, including red cross and handicap symbols, as well as a variety of others. Experiment with your different options to see what is right for you and your map.

*Double check your layer order to ensure that any symbols you want visible aren't hidden beneath other information or layers.



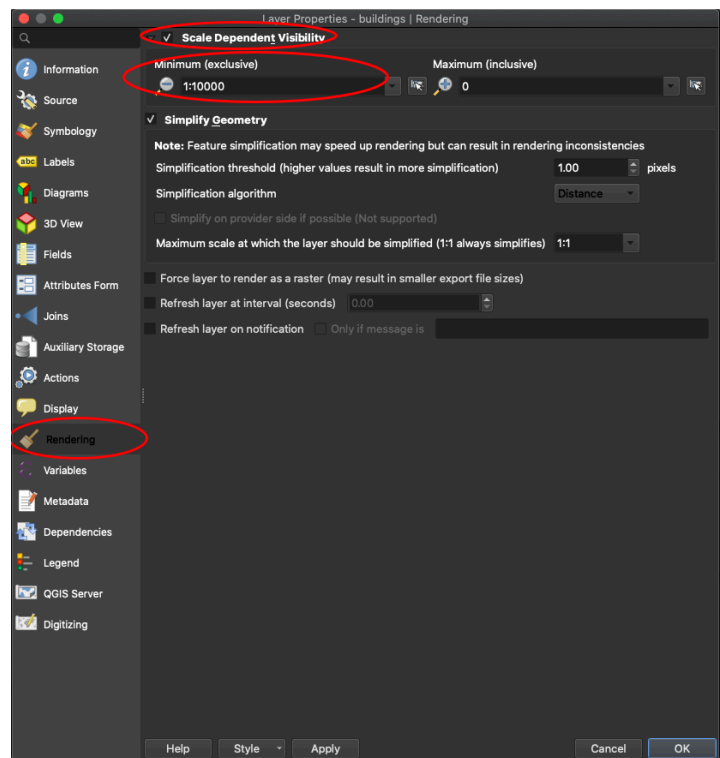
In the example I've changed the points to show a hospital symbol and reordered so that it will always appear above the roads and buildings.



Scale Based Visibility:

Adjusting what layers are visible at certain scales will help your maps feel much more concise. In our current map, as we zoom out our building layer becomes very hard to look at as all the information blends into one another.

To change this, we'll go into our **Layer Properties** for that layer and selecting the **Rendering** tab. Make sure to check **Scale Dependent Visibility** and set the minimum value. I'm setting it to 1:10000. Click **OK** and zoom in and out to test, once you zoom out and reach that scale our building layer should disappear.



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