

Assignment: On-screen Digitizing Practice

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Module Licensing Information



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Reviewed by

Michael Hamel

Assignment:

To practice your online digitizing skills we will be creating line and polygon layers for the University of Massachusetts campus. We will use a dataset that you may already have on hand, [[IntroQGISClassDemo](#)].

Imagine that you are working for an organization looking to keep better records of their buildings and roads. In this assignment you will create polygons of building and lines for roads with accompanying attributes.

Digitizing Roads:

Please copy the data set for the lab to your working directory (from the link above) if you have not already done so:

1. Extract the data archive to your working directory
2. Add the following vector layers to the project - rd5k8.shp, lus8.shp and TOWNS_POLY.shp.
3. Add the raster layer 2_117902.tif to the project.

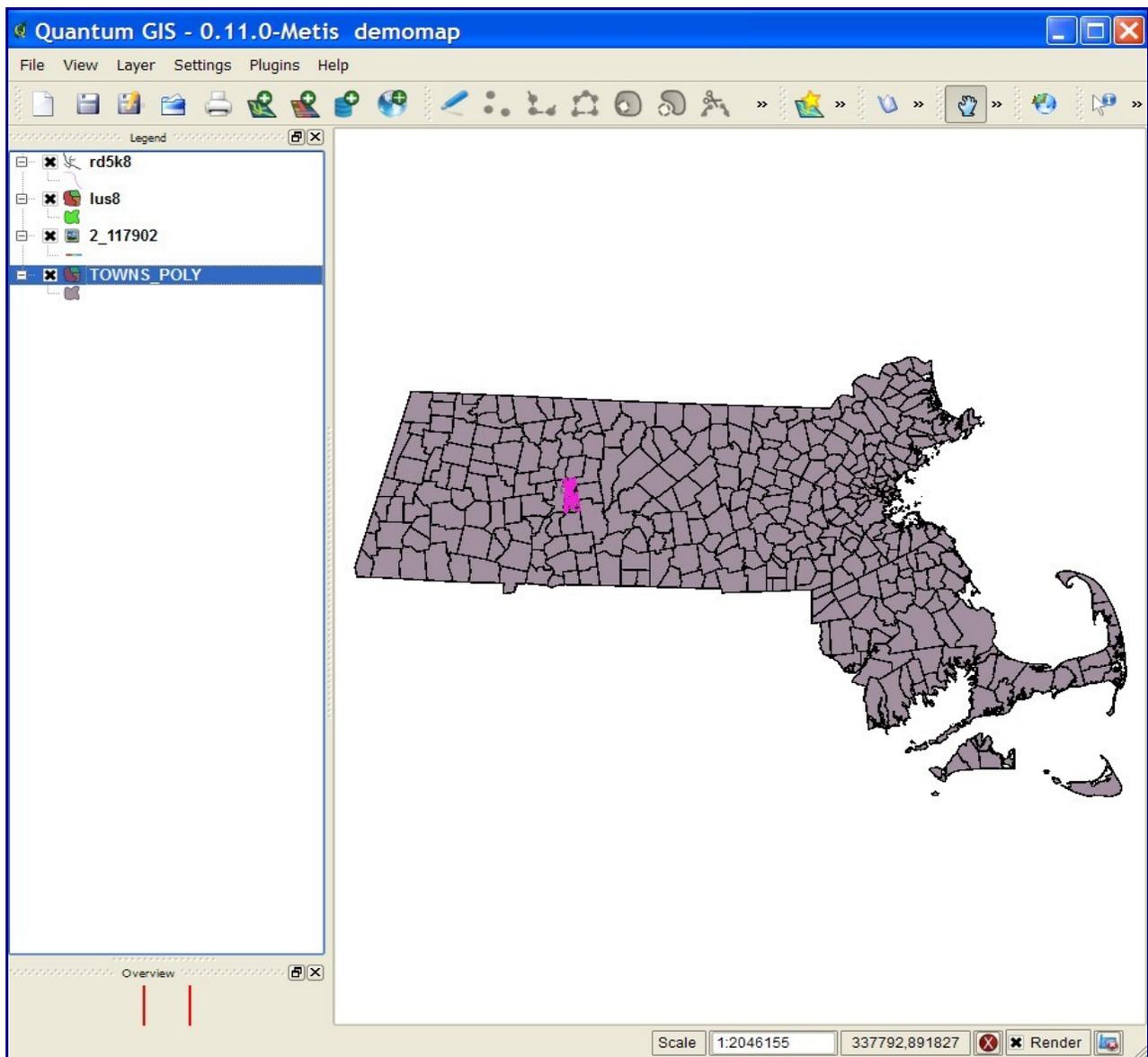


Figure 1

4. Zoom in to the orthophoto of the University of Massachusetts campus.

You will notice that part of the orthophoto is within the boundaries of the Town of Amherst (lus8.shp), while the other part of the orthophoto covers the Town of Hadley. We want to create a new roads layer for the roads in the Town of Hadley.

5. Create a new vector layer (line) and add attributes for the road **ID** (integer), **Name** (string) and **Condition** (string). Save the layer as hadleyroads.

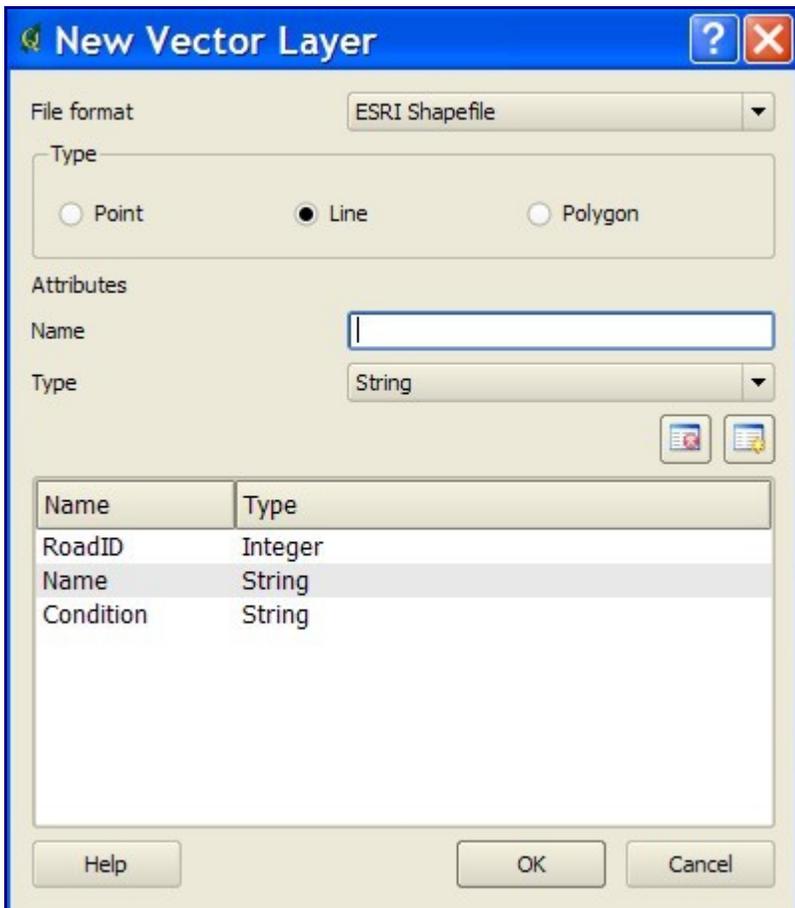


Figure 2

6. Start editing the hadleyroads layer and click the Capture Line button. When you finish drawing a road, right click to end the line.

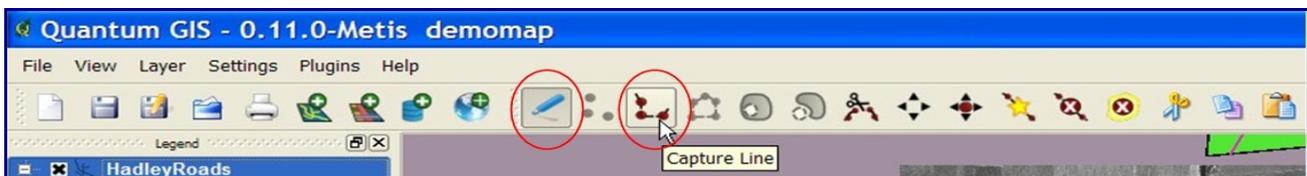


Figure 3

7. Create at least 5 road segments and fill in the appropriate attribute data. (The attribute data you enter does not need to be accurate, we just want you to be comfortable with attribute tables.)

Digitizing Buildings:

1. Create a new vector layer named building with the same attributes that we used for the roads layer. (remember, for digitizing buildings we must use a polygon layer, rather than a line layer.)
2. Create at least 10 polygons with the appropriate attribute information (you can select any buildings on the orthophoto).

Remember, you need to start editing and click the capture polygon button, rather than the capture line button used to create the roads layer.



Figure 4

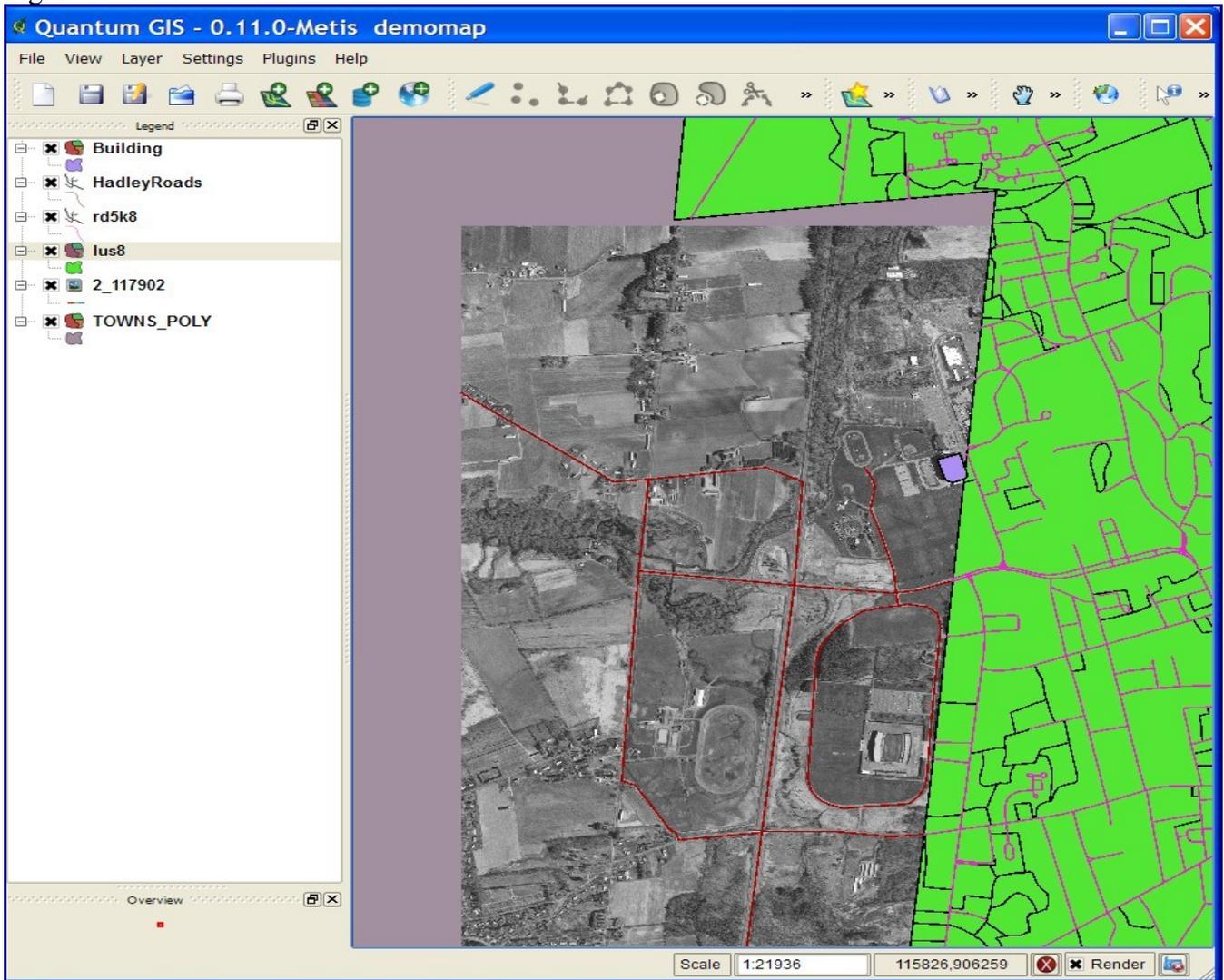


Figure 5

Assignment Deliverables

1. A screenshot of the road lines you created.
2. A screenshot of the attribute table for the roads layer.
3. A screenshot of the building polygons you created
4. A screenshot of the attribute table for the buildings layer.
5. A note about any problems you may have encountered while completing this assignment.

(See example screenshots below.)

Please email a .pdf of the assignment to your instructor. You can create the .pdf by pasting the screenshots into an Open Office, Microsoft Word, etc file and exporting the file as a pdf from the file menu. If you do not have a .pdf creator, you can download a print to .pdf program, such as [PDFCreator](#).



Figure 6

Attribute table - buildings

	id	Condition	ID	Name
1		0 good	1	Mullins Ice Rink
2		1 good	2	Mullins Center
3		2 poor	3	Building 7
4		3 excellent	4	Maintenance

Buttons: Start editing, Stop editing, Help, Search for: [] in Condition [v] Search select [v] Advanced... Close

Figure 7

Although it may seem redundant to have two ID columns, imagine that you are working for an organization that has their own identification number for each structure. In that case this second column could be very useful.