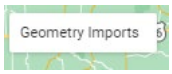
Lab 12: Supervised image classification in Google Earth Engine

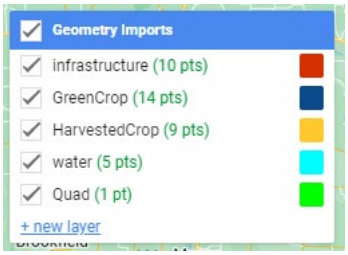
Task: To create your own Random Forest classification

Step 1

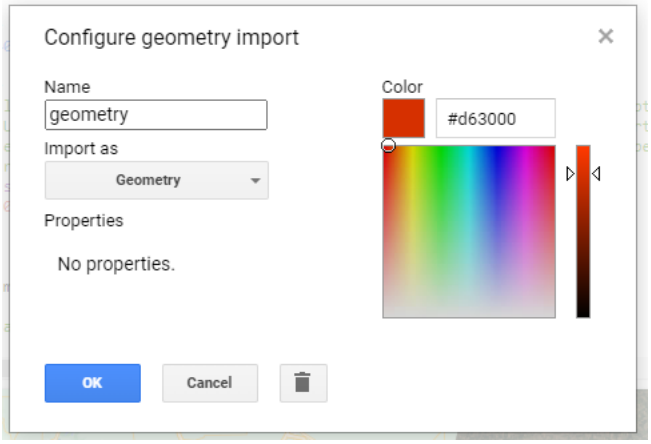
Identify your study area

1. Just to keep things more simple, identify your study area within the US
2. Go to Google Maps and copy and paste the coordinates of the center point of your study area
    a. Replace the Map.setCenter() (line 7 of code) coordinates with your new center point and make sure you switch the lat/long since it's opposite from the Google Maps default
3. Hover over the Geometry Imports button and click '+ new layer'

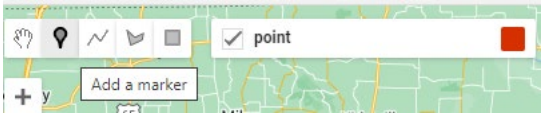




    a. A new 'geometry' object will appear. Click on the setting button next to it to see this window and rename it (I named it 'point')



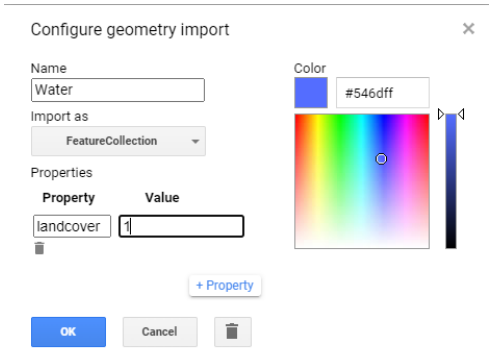
    b. With your new geometry point visible, Add a marker on the map for your map center. This point feature will replace the Quad variable in the example code.



Step 2

Create your training data

1. Run your code to view the landsat imagery for your chosen study area and identify at least 3 cover types you want to classify (ex: Water, Urban, Vegetation)
2. Create the training points using the Geometry Imports
    a. Make sure you choose Import as FeatureCollection, and identify the property as 'landcover' and give your classes consecutive values. For example, if Water has a value of 1, Urban will have a value of 2 and Vegetation will have a value of 3.



    b. Replace the names in the example code to your new training data:

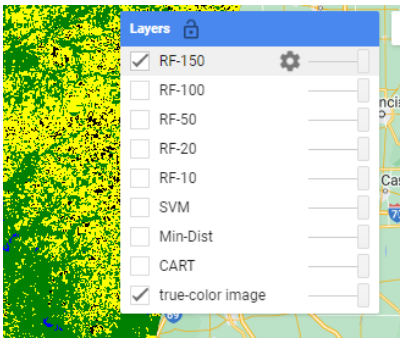
var training_data = water.merge(infrastructure).merge(GreenCrop).merge(HarvestedCrop);

So if we were using my three classes as an example, my new code would read:

Var training_data = Water.merge(Urban).merge(Vegetation);

Earth explorer is case sensitive, just like R.

To view your random forest (RF) classification, make it visible in the Layers dropdown menu.



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