

OS Python week 1: Reading & writing vector data

Assignment 1a

Read coordinates and attributes from a shapefile.

1. Import needed modules and set the working directory
2. Open the output text file
3. Get the shapefile driver
4. Open sites.shp and get the layer
5. Loop through the features in the layer
 - a. Get the 'id' and 'cover' attributes for the current feature
 - b. Get the geometry for the current feature and its x,y values
 - c. Write the data (id x y cover) to the text file
 - d. Destroy the current feature and get the next feature
6. Destroy the DataSource and close the output file

Turn in your code and the output text file.

Assignment 1b

Copy selected features from one shapefile to another.

1. Import needed modules and set the working directory
2. Get the shapefile driver
3. Open sites.shp and get the input layer
4. Create an output shapefile and get its layer
5. Copy the 'id' and 'cover' fields from the input layer to the output layer
 - a. Get a feature from the input layer
 - b. Get the FieldDefn's for the 'id' and 'cover' fields
 - c. Use that those FieldDefn's to create two new fields in the output layer
6. Get the FeatureDefn for the output layer
7. Loop through the features in the input layer
 - a. Get the 'cover' attribute for the current input feature
 - b. If cover is 'trees' (remember the difference between = and ==)
 - i. Create a new output feature using the FeatureDefn you got in step 6
 - ii. Get the geometry for the input feature and add it to the output feature
 - iii. Add the cover attribute of the input feature to the output feature
 - iv. Get the id attribute for the input feature and add it to the output feature
 - v. Add the output feature to the output layer
 - vi. Destroy the output feature
 - c. Destroy the input feature and get the next input feature
8. Destroy both of the DataSources

Turn in your code and a screenshot of the new shapefile being displayed.