



# Introduction to Quantum GIS (QGIS)



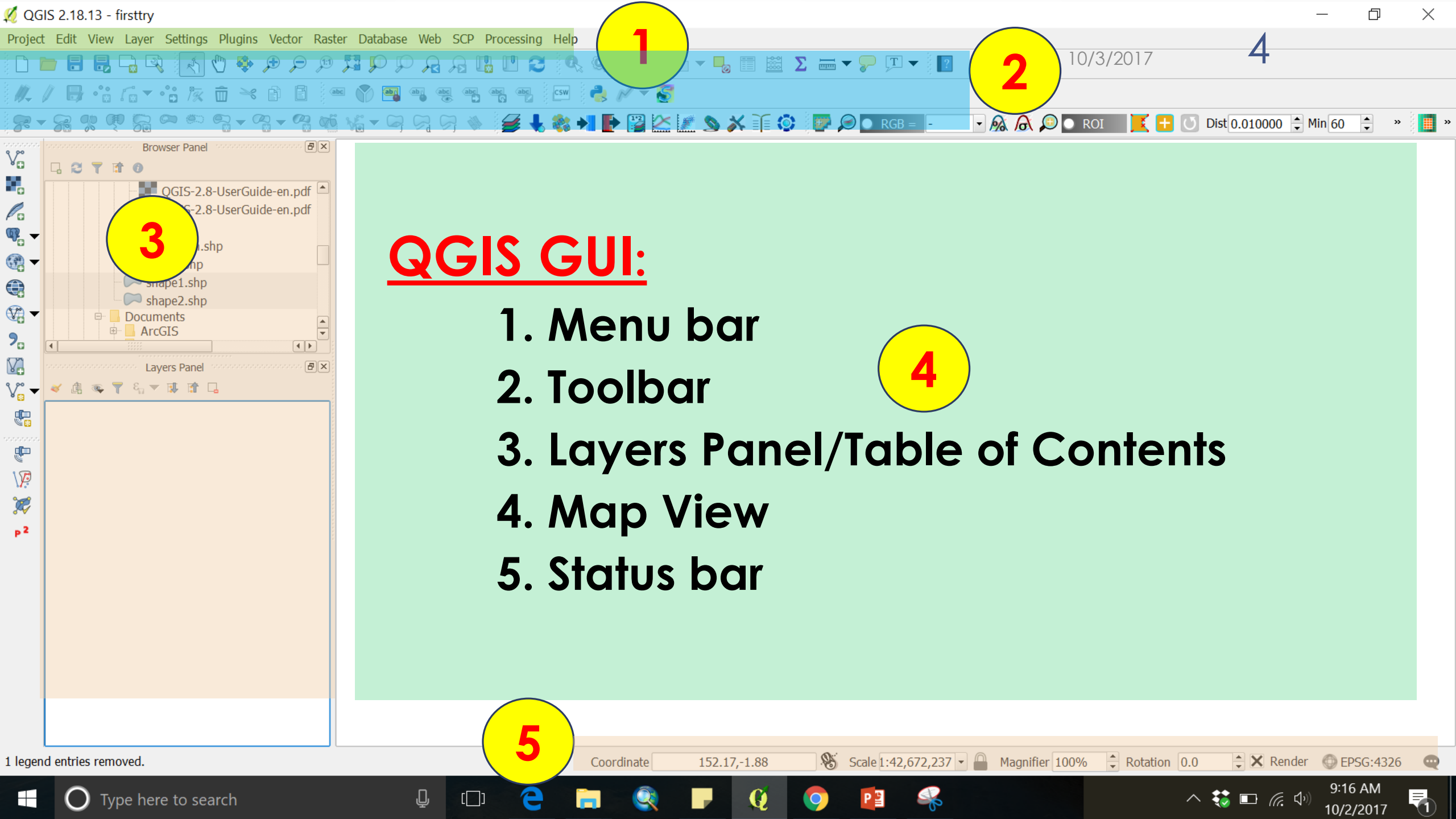
# Contents

- What is QGIS
- QGIS General User Interface
- Loading layers
- Changing symbology
- Geoprocessing Tools
- Creating new shapefile
- Updating Attribute Table
- Installing Plugins



# QGIS?

- Free
- Open source – rights to download, run, copy, alter, and redistribute the software
  - As users, you can:
    - Suggest improvements
    - Make improvements
    - Hire a professional to make changes



## QGIS GUI:

1. Menu bar
2. Toolbar
3. Layers Panel/Table of Contents
4. Map View
5. Status bar



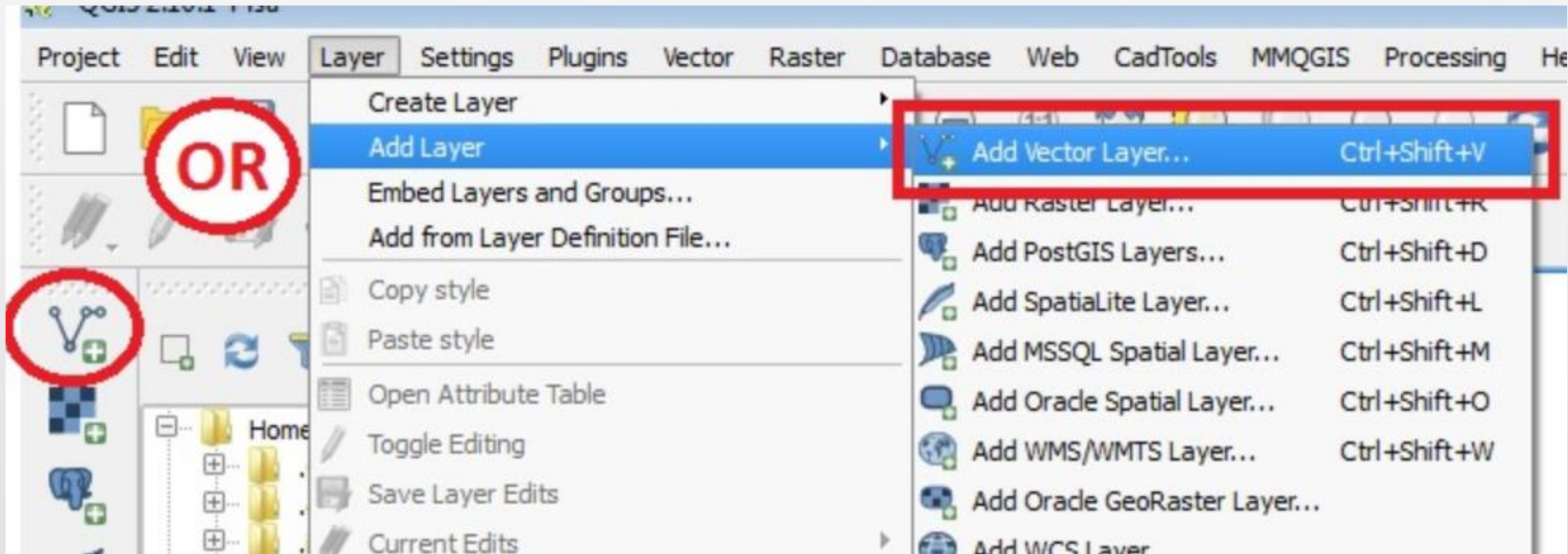
# Loading Common Data layers

- Vector data
- Raster data
- Table data (csv file)



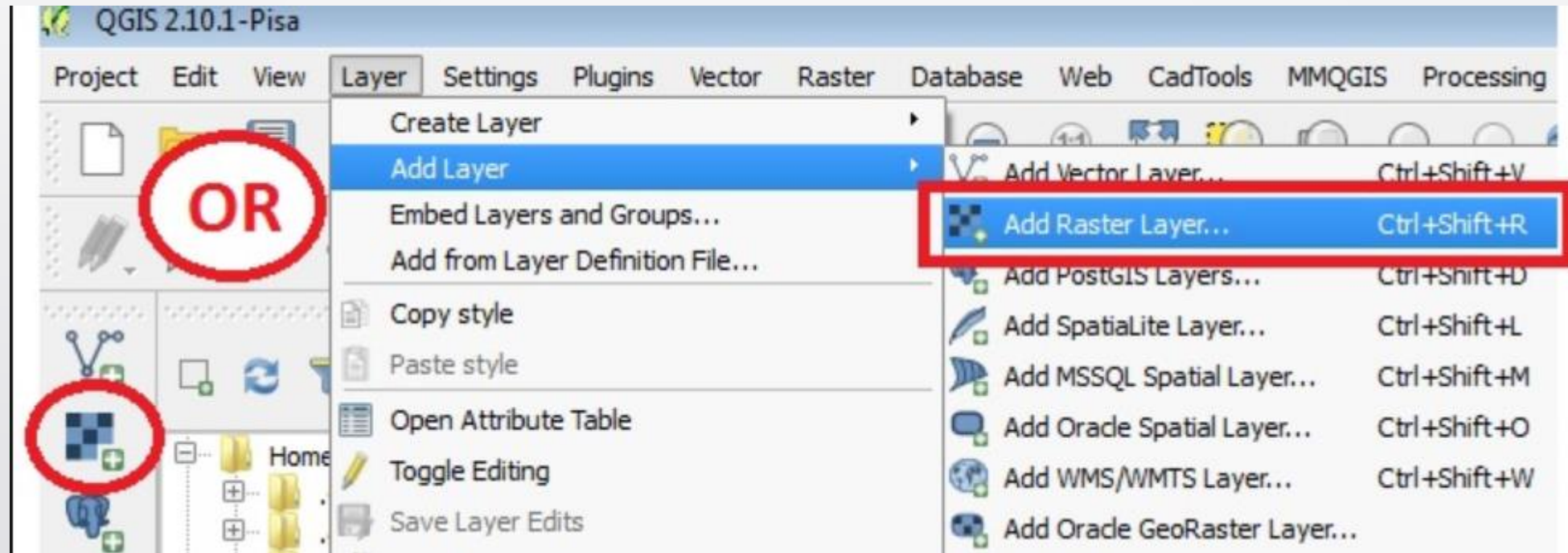


# Loading Vector files





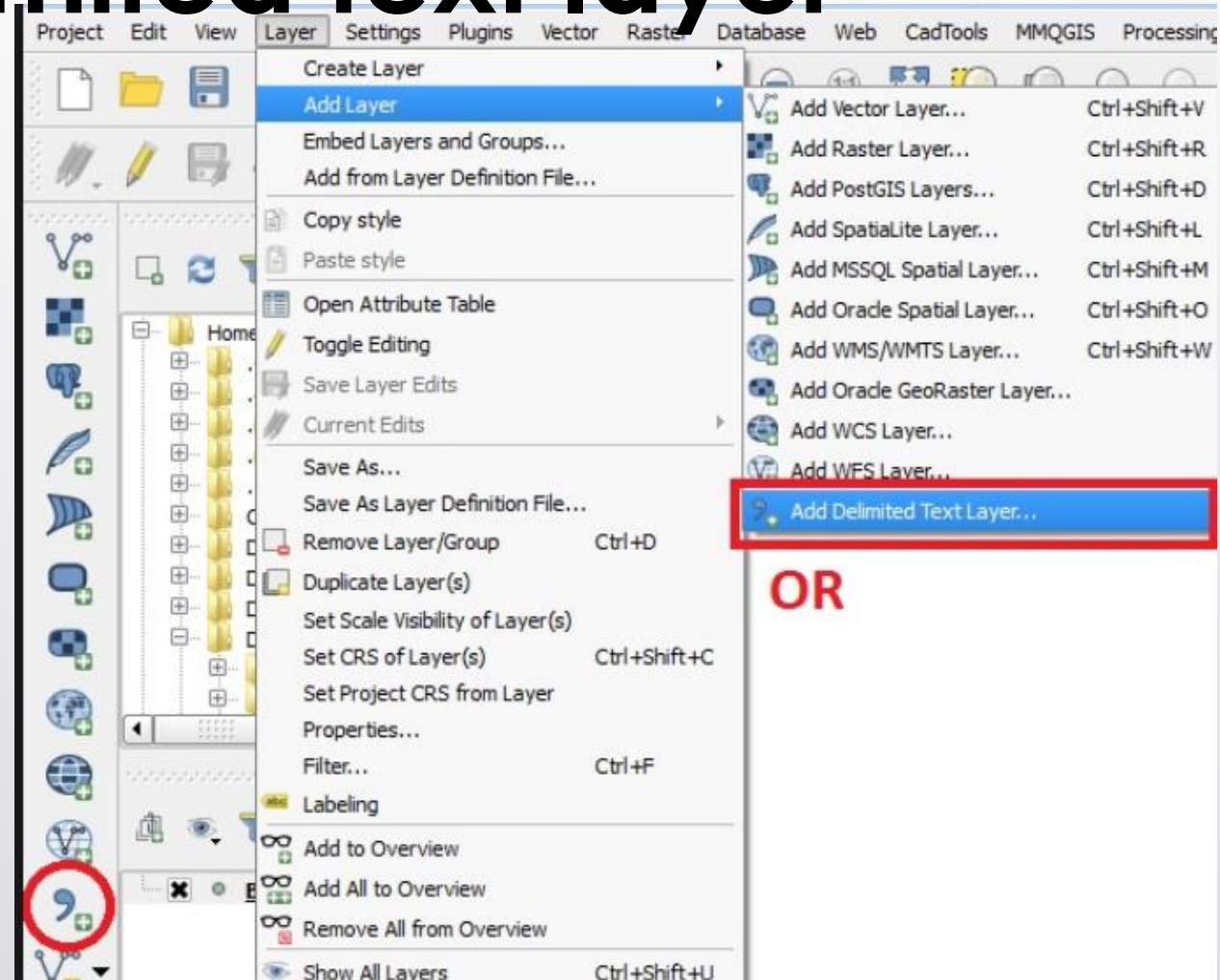
# Loading raster files







# Loading delimited text layer





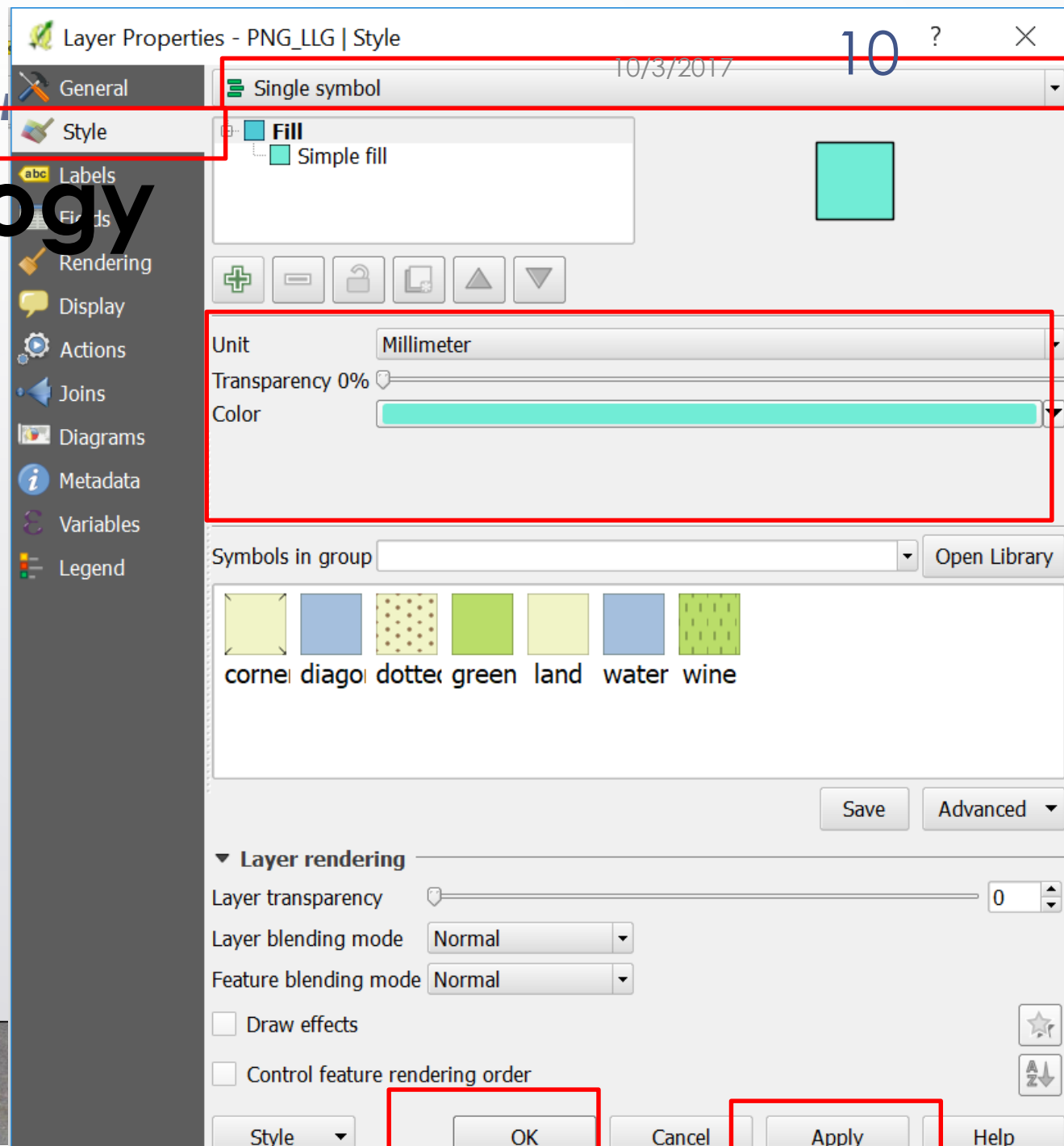
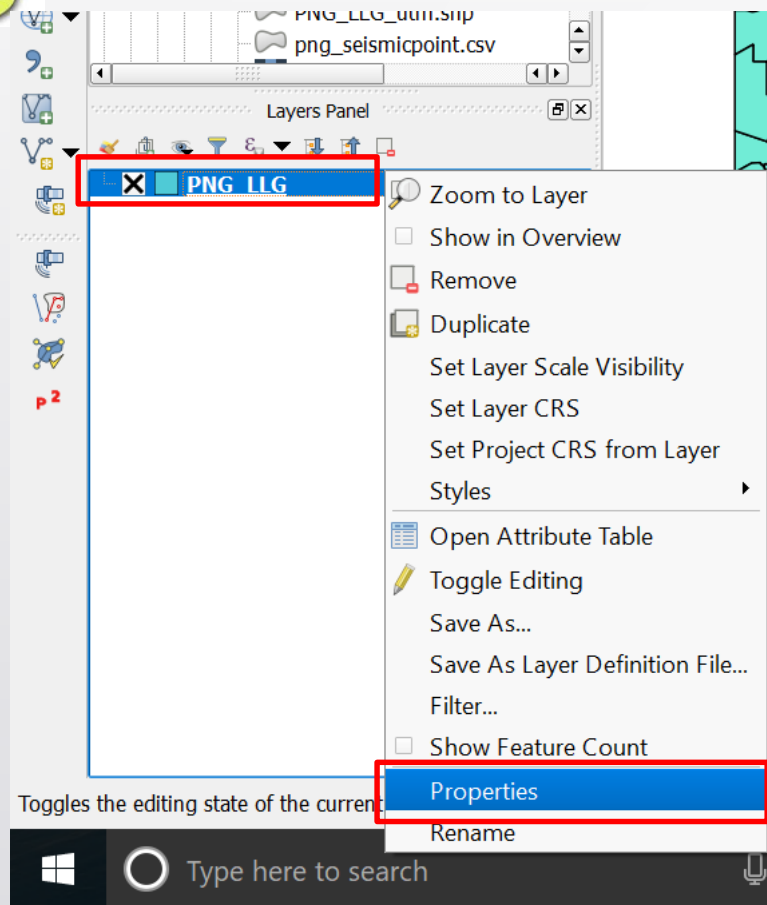


# Changing Symbology of Data Layer

- Vector data
- Raster data

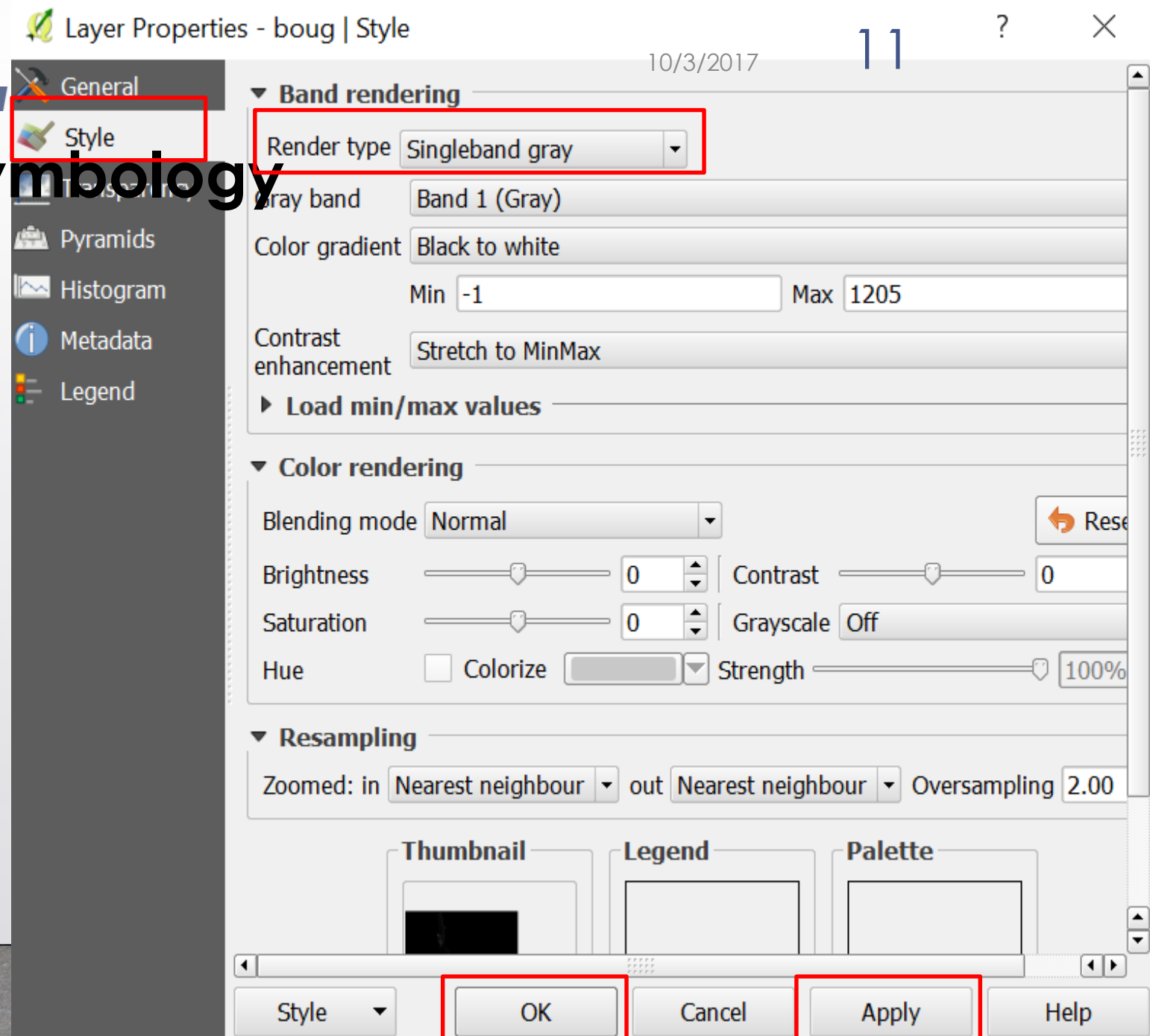
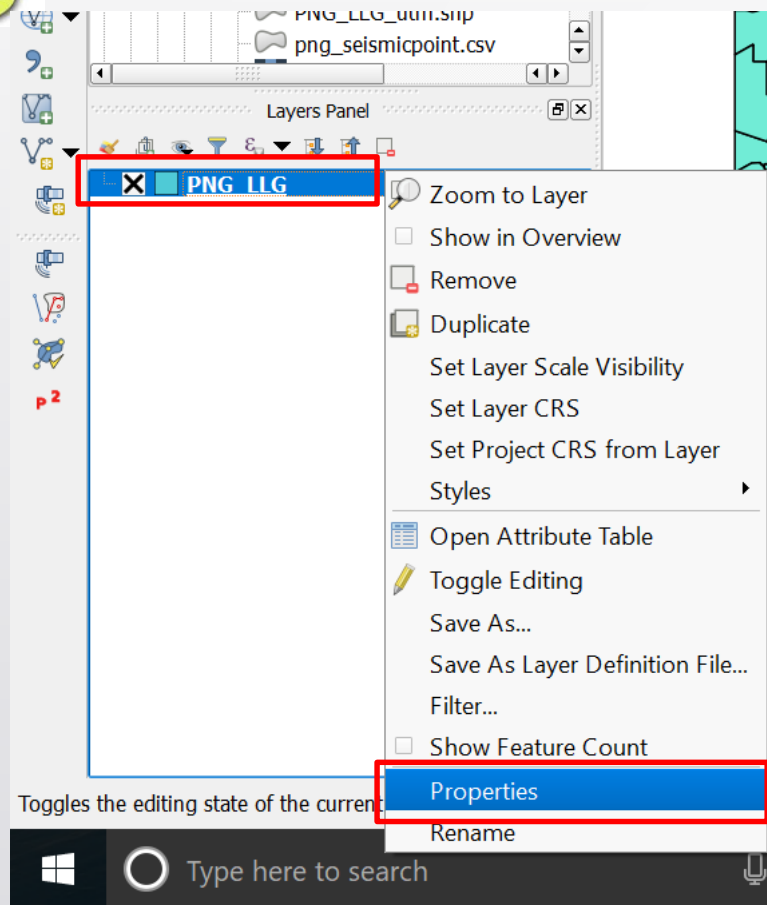


# Vector Symbology





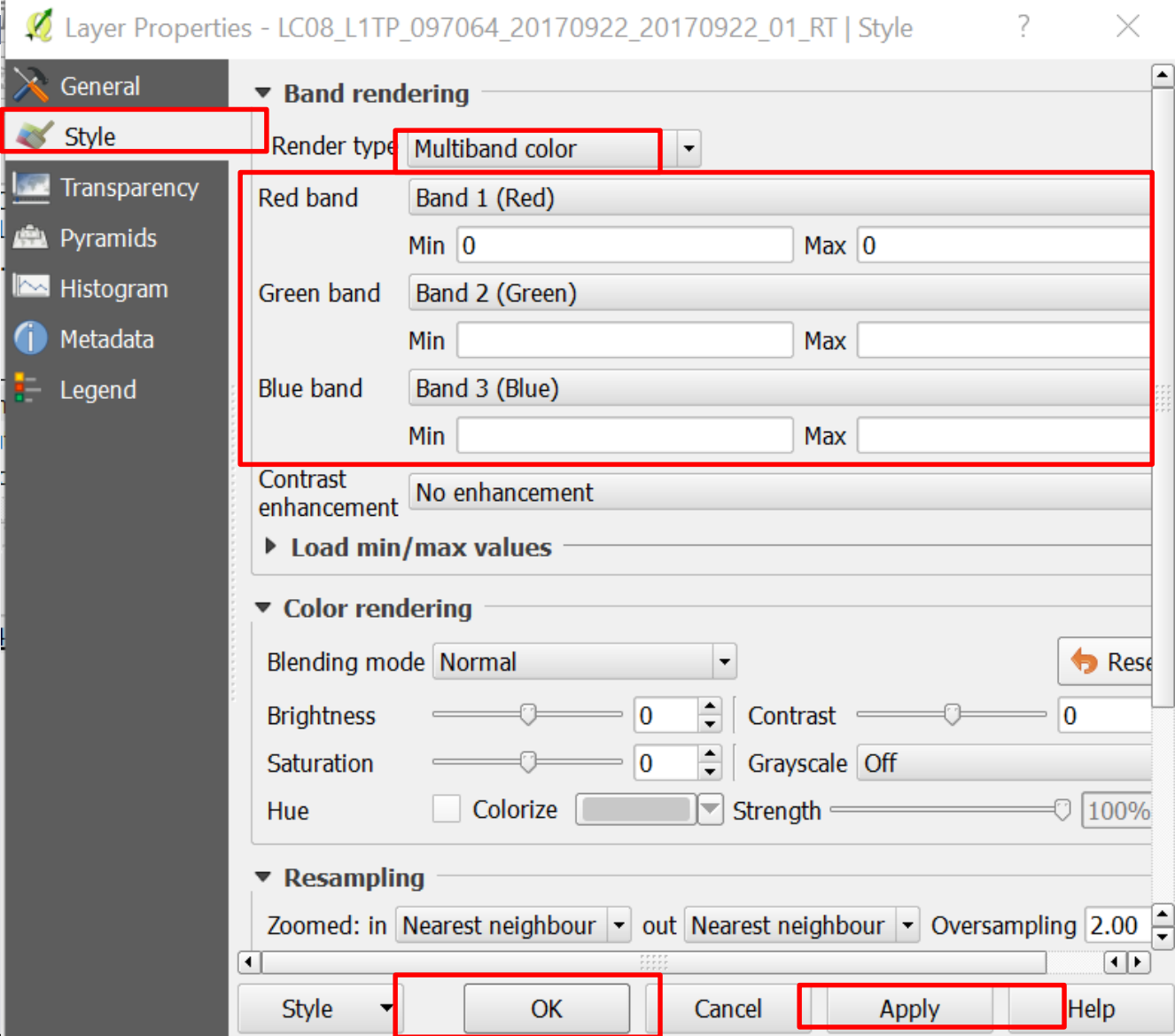
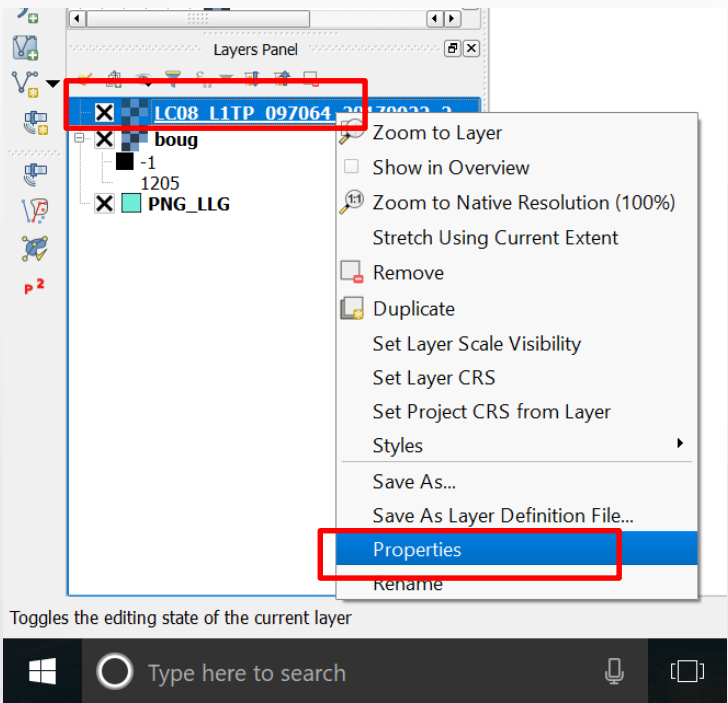
# Raster (1-band) Symbolology



# Raster (multiband) Symbolology

10/3/2017

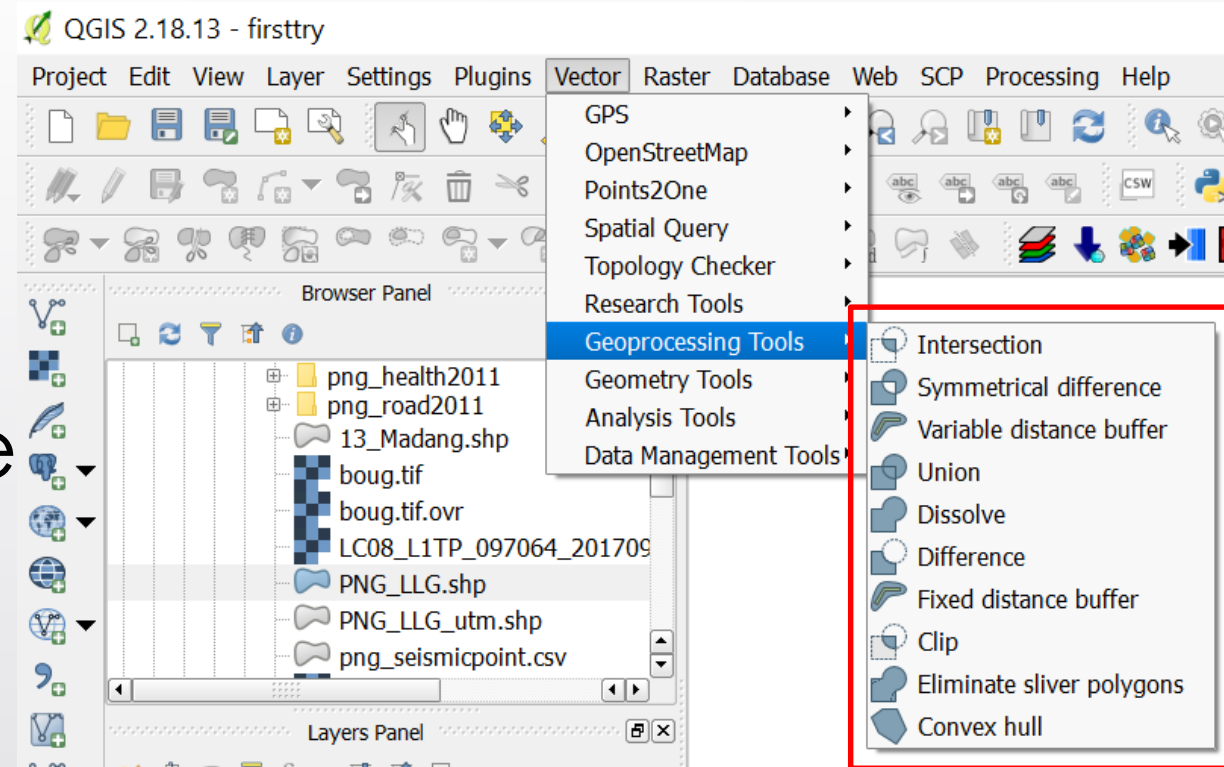
12





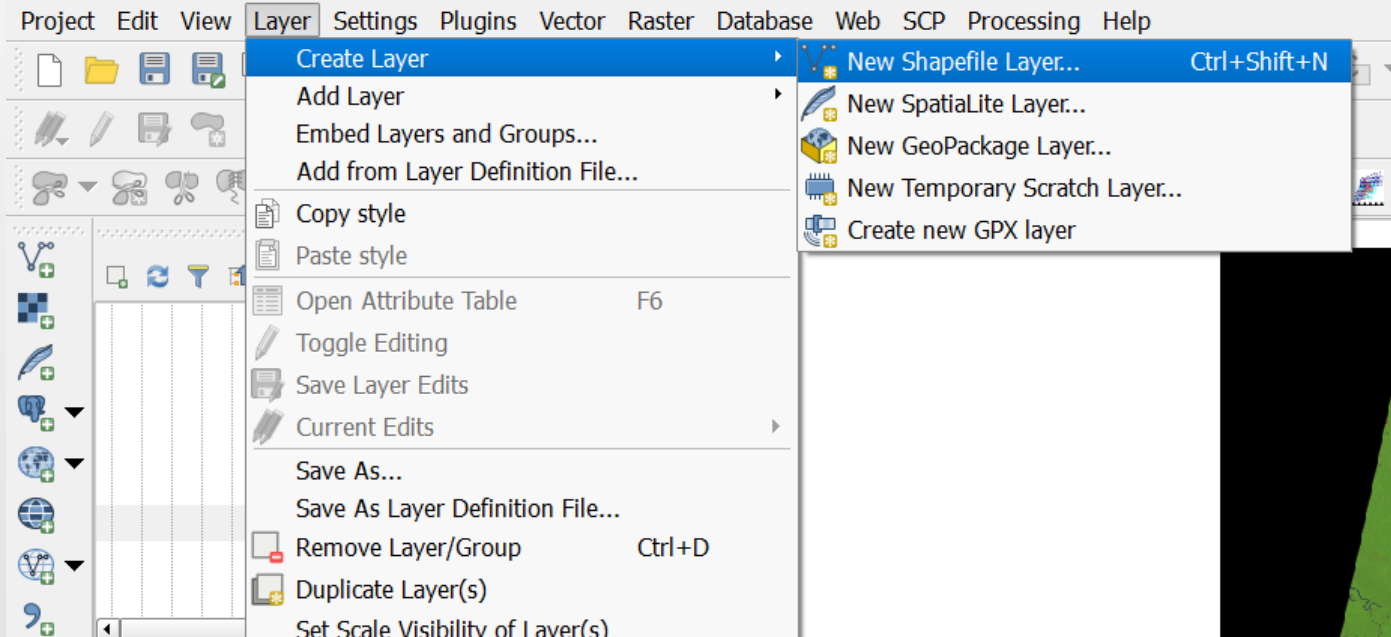
# Geoprocessing Tools

- Clip
- Intersection
- Symmetrical difference
- Union
- Dissolve
- Difference
- Fixed distance buffer



# Creating new shapefile

QGIS 2.18.13 - firsttry



New Shapefile Layer 10/3/2017 14

Type

☒ Point ☐ Line ☐ Polygon

File encoding System

Selected CRS (EPSG:4326, WGS 84)

New field

Name

Type Text data

Length 80 Precision

Add to fields list

Fields list

| Name | Type    | Length | Precision |
|------|---------|--------|-----------|
| id   | Integer | 10     |           |

Remove field

OK Cancel Help

## Updating Attribute Table

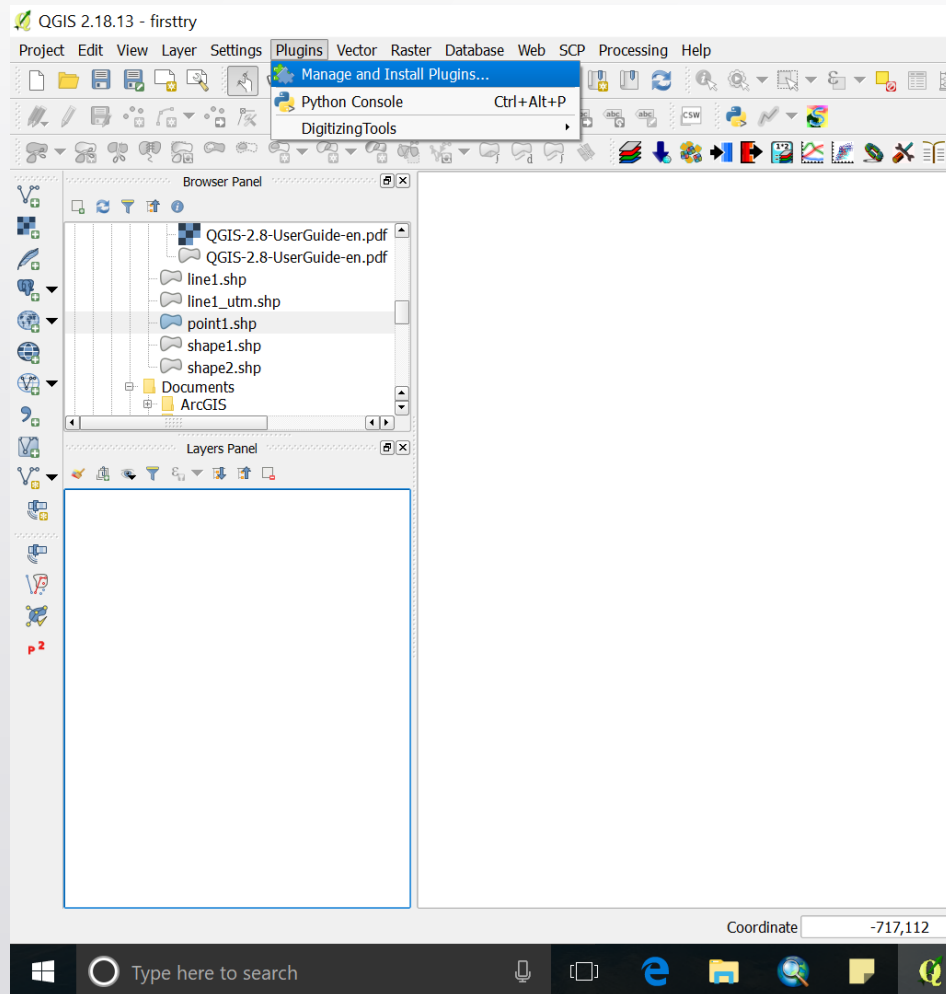
- Open attribute Table of the vector layer (demonstration)

QGIS PNG\_LLG :: Features total: 297, filtered: 297, selected: 0

123 OBJECTID =  $\epsilon$

|   | OBJECTID | Id     | Area         | Geocode     | Totpop       | NUM_HC       | IUM_SCHOO    | Prov_Name | LLG_Name      |
|---|----------|--------|--------------|-------------|--------------|--------------|--------------|-----------|---------------|
| 1 | 1        | 010209 | 3654.9000... | 01020900... | 3765.0000... | 0.0000000... | 0.0000000... | Western   | OLSOBIP RURAL |
| 2 | 2        | 010105 | 21444.600... | 01010500... | 10562.000... | 1.0000000... | 3.0000000... | Western   | NOMAD RURAL   |
| 3 | 3        | 010102 | 9978.6000... | 01010200... | 8169.0000... | 0.0000000... | 0.0000000... | Western   | BAMU RURAL    |

# Installing Plugins



## Plugins to be installed:

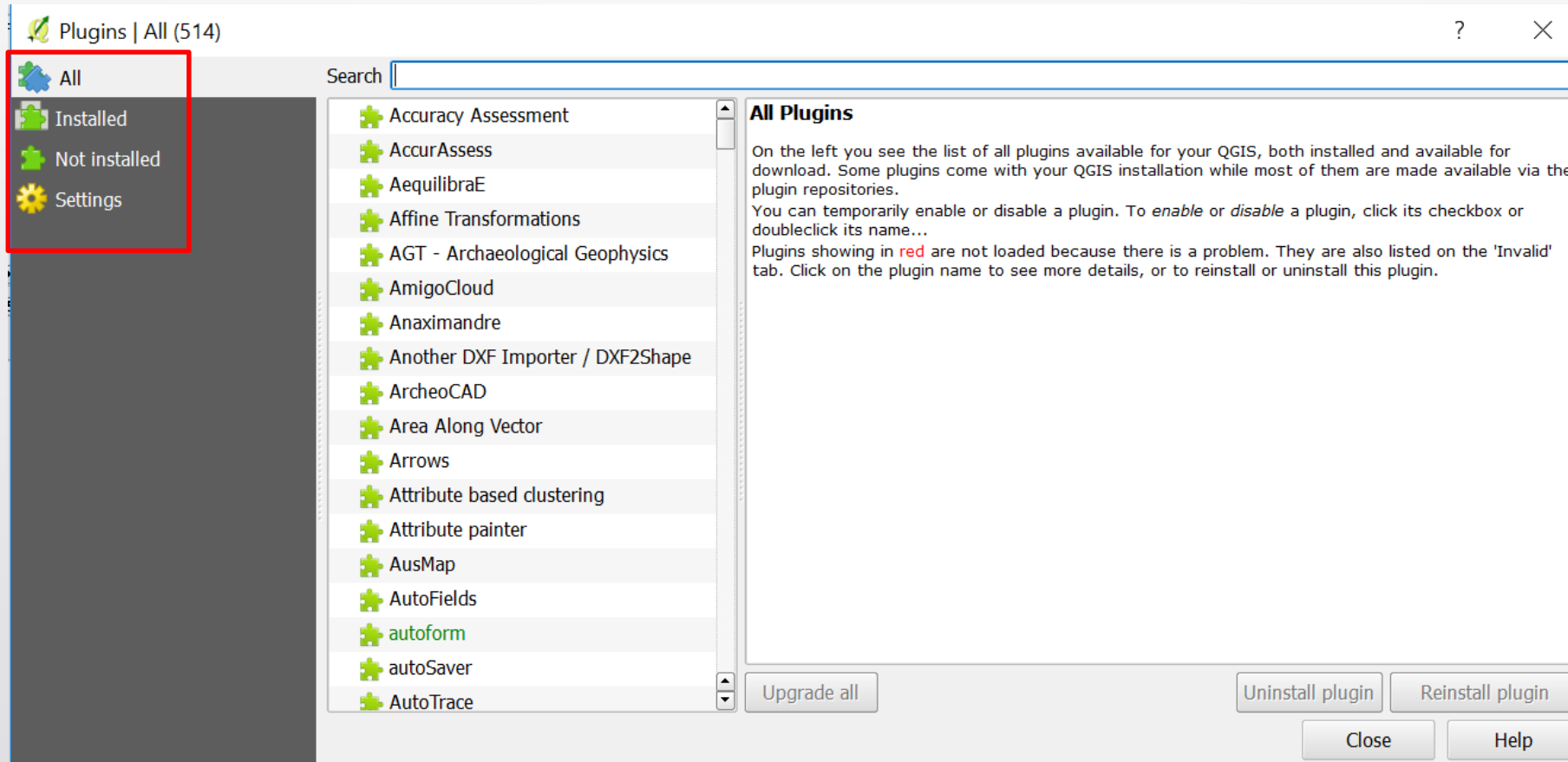
1. OpenLayers
2. Georeferencer
3. Digitizing Tools
4. Interpolation
5. Points2One
6. Semi-automatic Classification



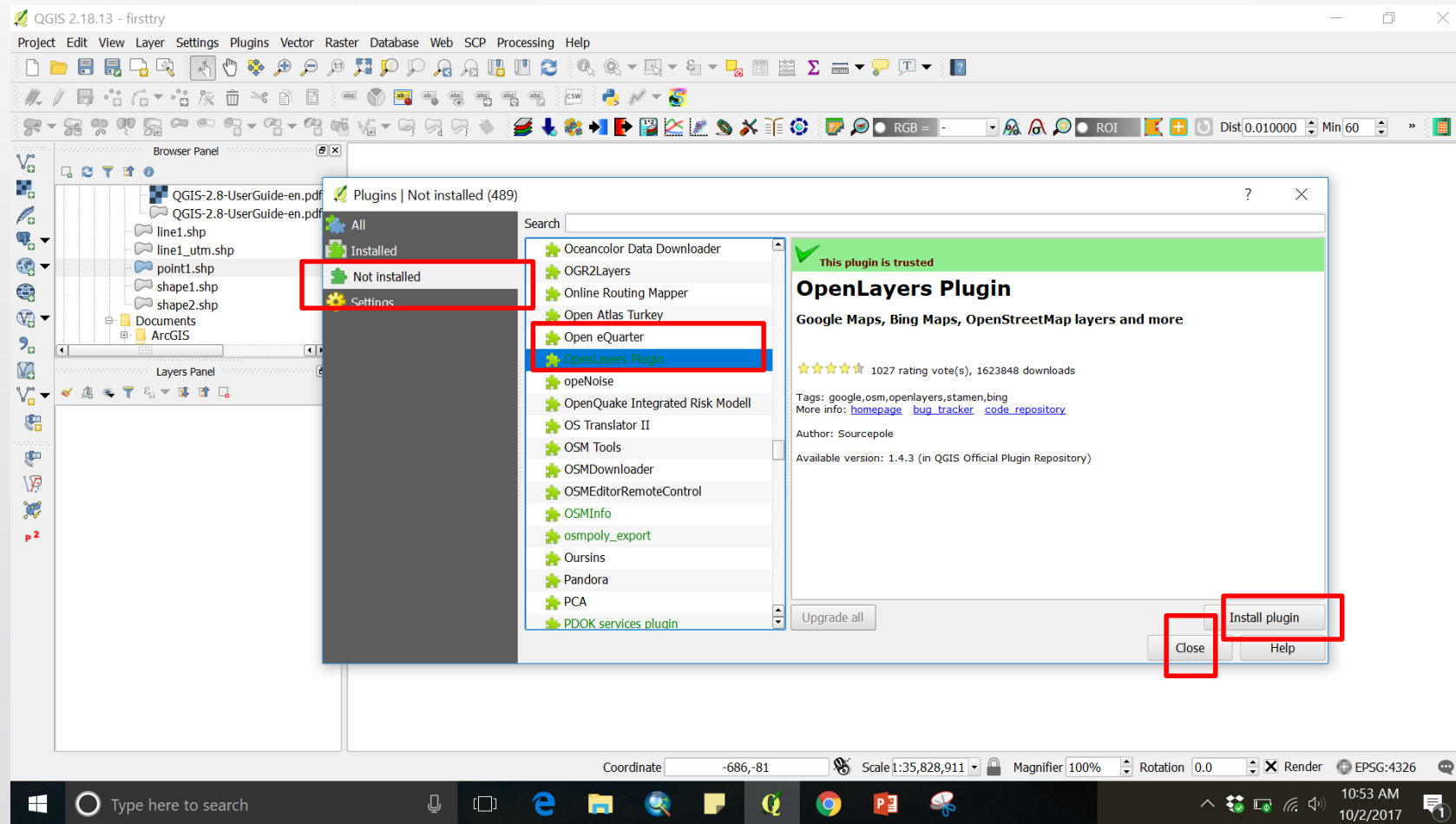


# Adding Geometry attribute to Vector file

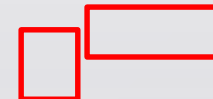
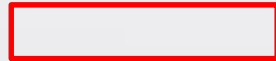
# Installing Plugins



# Installing Plugins: OpenLayers



# Installing Plugins: OpenLayers







Next: Demonstration



Thank you