

Advanced Data Analysis with GIS

Follow along at: <http://bit.ly/advanced-analysis-gis>

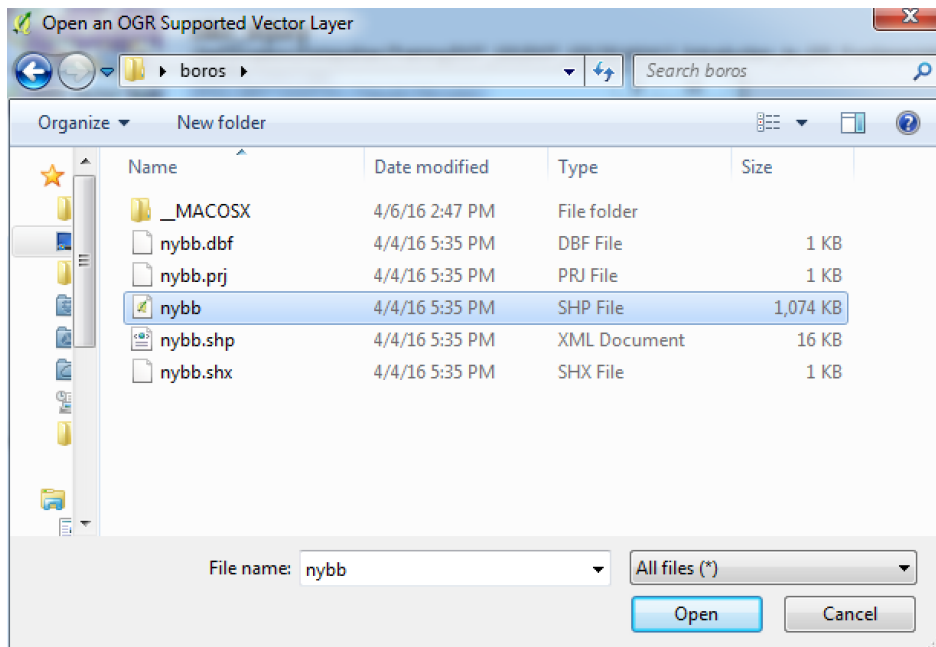
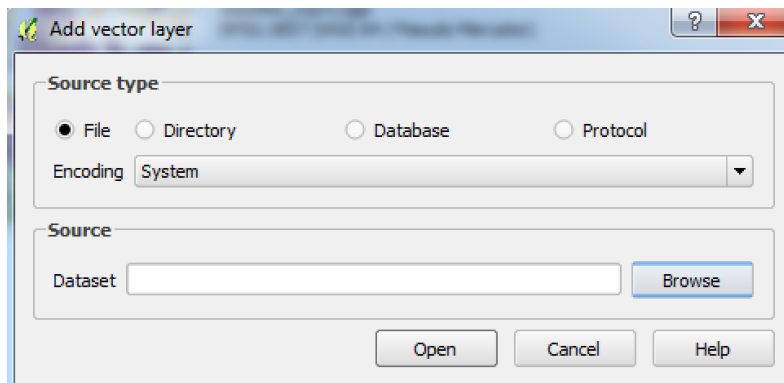
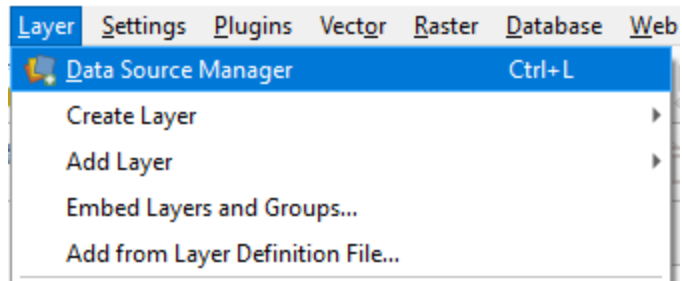
See the code at: <http://bit.ly/advanced-analysis-gis-code>

Key Questions for the Morning

- What is a GIS?

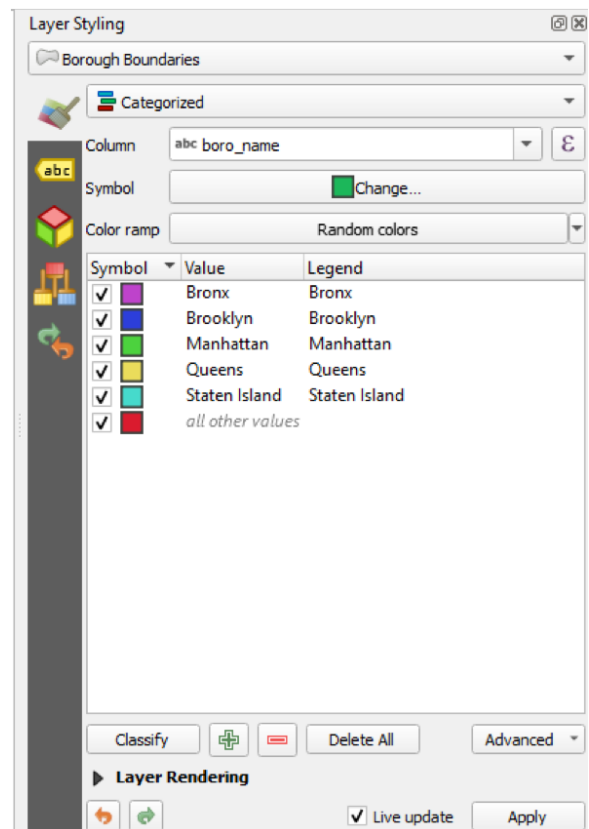
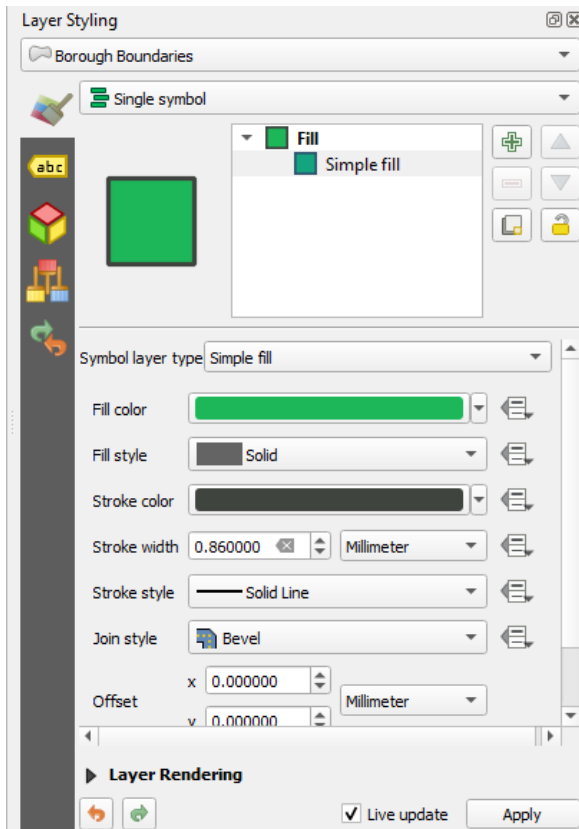
- Why do we use GIS?

Loading a Shapefile



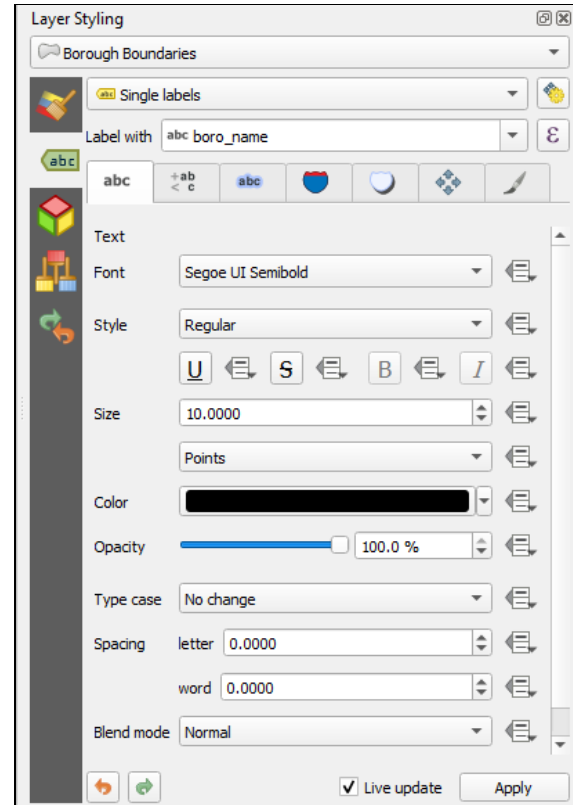
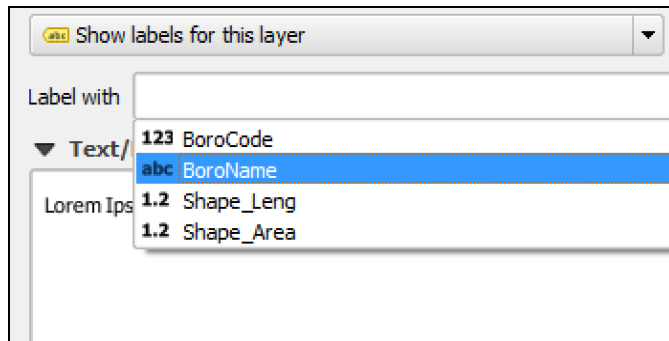
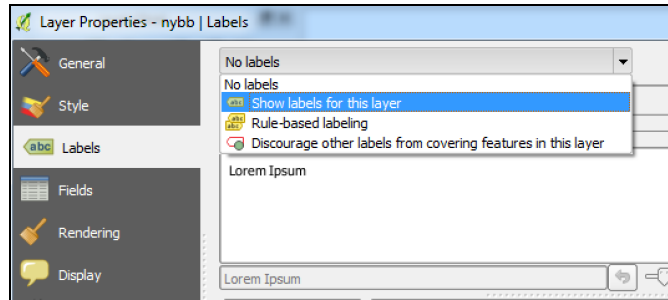
Styling Features

- Click the button on the top left of the Layers panel
- In the Layer Styling panel, select "Categorized"
- Select the column that has the data you want to style



Add Labels to Data

- In the Layer Styling panel select "Labels" -> "Show labels for this layer"
- Select the column that has the data you want to use for labels
- Select the label attributes you want



Shapefiles

- Key things to know

Adding Data from Data Warehouse

Create a New MSSQL Connection

Connection Details

Connection name

Provider/DSN

Host

Login

Trusted connection

Username Save

Password Save

Database Details

Database

Only look in the geometry_columns metadata table

Also list tables with no geometry

Use estimated table parameters

Skip invalid geometry handling

- Enter **“Parks DWH”** in the Connection name field (this can be whatever you want)
- Don't enter anything in Provider/DSN
- Enter **“data.nycdpr.parks.nycnet”** in the Host field
- Login with your Parks username and password

Filtering Data in QGIS

Coordinate Reference System (CRS)

- What is it?

- Why is it important?

Data Types in QGIS

Type	Notes
integer	
real	
string	
date	

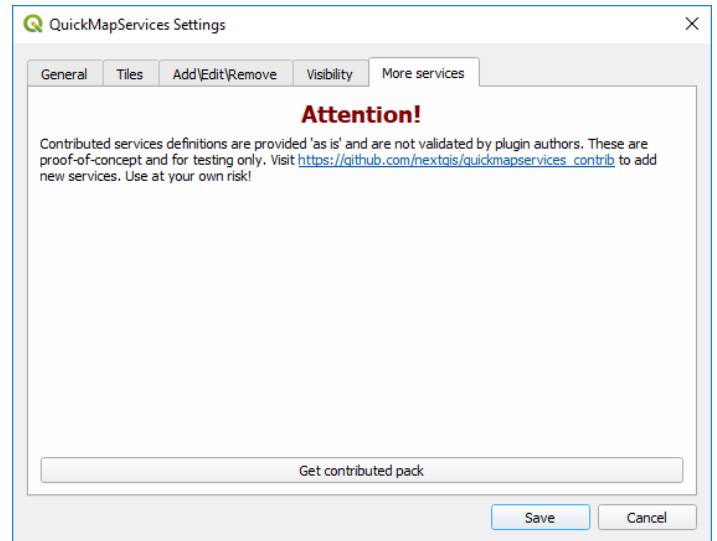
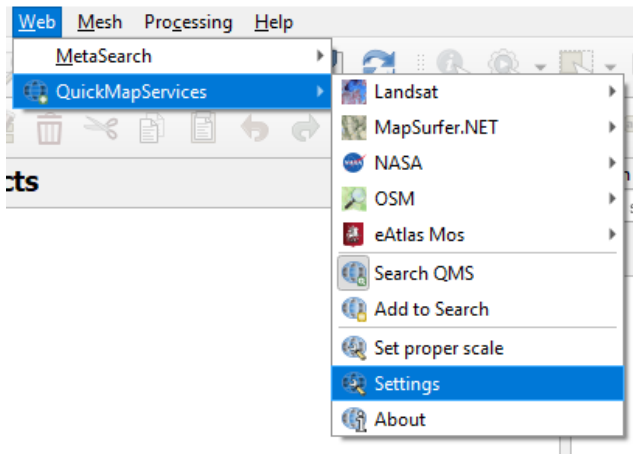
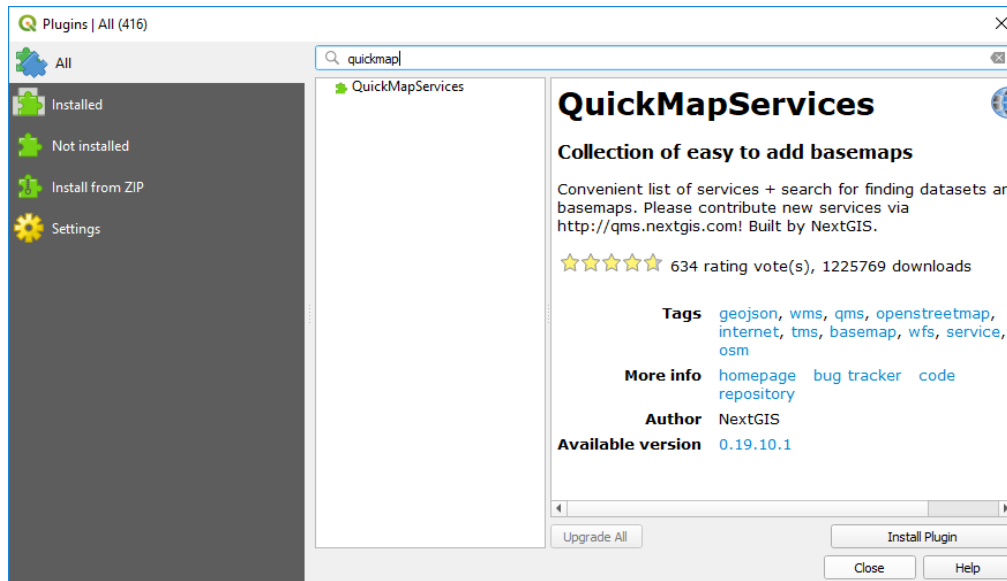
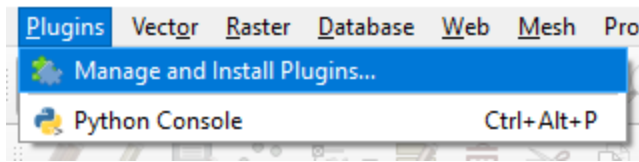
Key Questions for the Afternoon

- What are Spatial Joins?

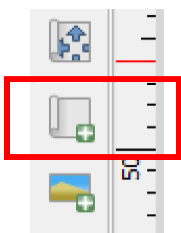
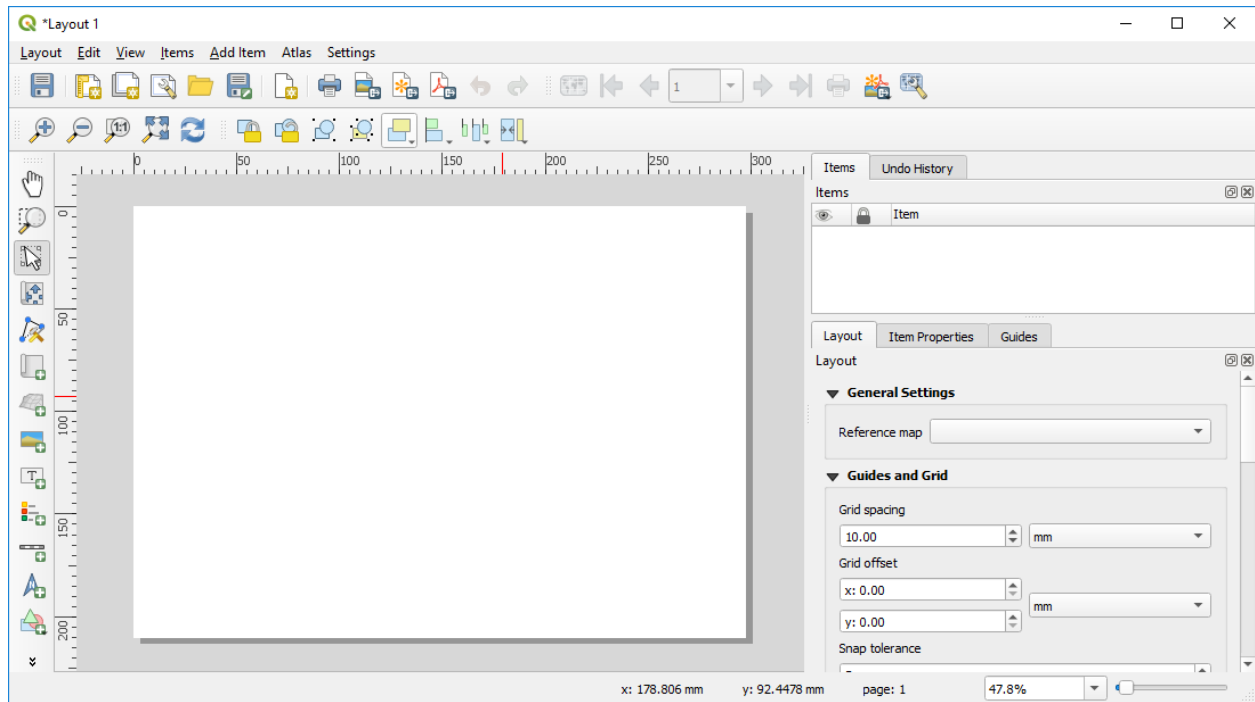
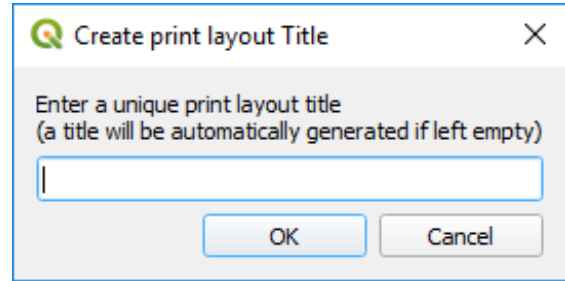
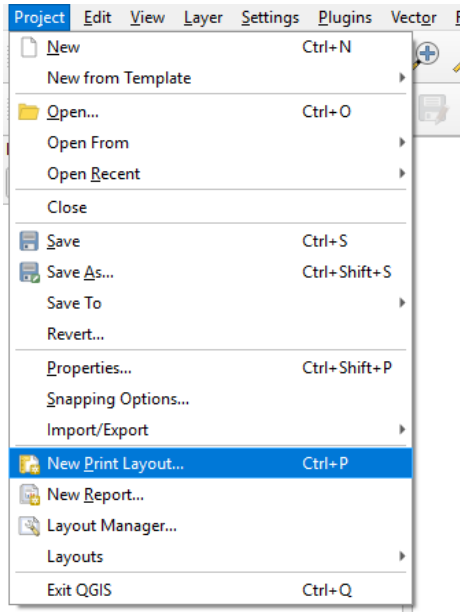
- Why do we use them?

- Types of Maps

Adding Base Maps



QGIS Print Layout



Add New Map



Add Title/Annotation

- What is Open Source?

- Why is it Important?

Resources

- Download QGIS: <https://qgis.org/en/site/>
- GIS Stack Exchange: <http://gis.stackexchange.com/>
- Kurt Menke, *Discover QGIS 3.x: A Workbook for Classroom or Independent Study*: <http://locatepress.com/dq3>
- Anita Graser and Gretchen N. Peterson, *QGIS Map Design*: <http://locatepress.com/qmd2>
- *A Gentle Introduction to GIS*: https://docs.qgis.org/3.4/en/docs/gentle_gis_introduction/
- *QGIS Tutorials and Tips*: <http://www.qgistutorials.com/en/index.html>
- Eric's YouTube Channel: <https://www.youtube.com/channel/UCsmBq4ziqRgBZSJK8sGF0Fg>

Contact Us



training@datapolitan.com



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<http://www.datapolitan.com>

About Datapolitan

For over 5 years, Datapolitan has worked to empower public sector clients with the skills, techniques, concepts, and mindsets necessary to make data meaningful and actionable to effectively manage their resources and realize operational value from the information they collect. We do this through a range of consulting and training services for local government agencies and nonprofit organizations, customized to their strategic vision and operational needs.

Your Notes

Implementation Guide

Concept/Technique	Why It's Important	How I Can Use It
What is a GIS?		
What is a Layer?		
Data Types		
File Formats		
Styling Features		
Coordinate Reference System/ Projections		