

Introduction to QGIS

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Housekeeping

- **Video recordings of tutorials found here:**

<https://www.bu.edu/tech/support/research/training-consulting/access-training-materials/>

- **Link to Presentation:**

http://rcs.bu.edu/examples/gis/tutorials/qgis/intro_to_qgis.pdf

- **Training Data Set:**

<https://github.com/qgis/QGIS-Training-Data/archive/master.zip>

Agenda

- What is QGIS?
- Resources/Documentation
- Contributing to QGIS
- Troubleshooting
- Let's Explore QGIS

What is QGIS?

What is QGIS?

- Free open source desktop GIS application
 - Analyze and edit spatial data
 - Create and export maps
- Incorporates other GIS open source tools
 - GDAL
 - GRASS GIS
 - PostGIS
 - Spatial Lite



Source: <https://en.wikipedia.org/wiki/QGIS>

What is QGIS?

- Originally developed by Gary Sherman in 2002 (Quantum GIS)
- Open Source Geospatial Foundation adopted it in 2007
 - OSGEO: <https://www.osgeo.org/>
 - QGIS Project Description: <https://www.osgeo.org/projects/qgis/>
- 2013 – named changed to QGIS
- Latest version is 3.22.3 – (Testing)
- Long Term Release (LTR) – 3.16.16



Source: <https://en.wikipedia.org/wiki/QGIS>

What is QGIS?

- ArcGIS Pro is the closest commercial product similar to QGIS.

QGIS	ArcGIS Pro
Free	Annually pay for License
Works in Windows, Mac, Linux	Windows Only
Can examine and modify code.	Black box
Lots of Googling to troubleshoot	Full tech support
Documentation outdated	Documentation up to date
Training material available (maybe outdated)	Many training material and examples available
User interface can be confusing	Very User Friendly
No multi-threading support for spatial tools	Some multi-threading support for spatial data

Another Opinion: <https://gisgeography.com/arcgis-pro-vs-qgis-3/>

Resources/Documentation

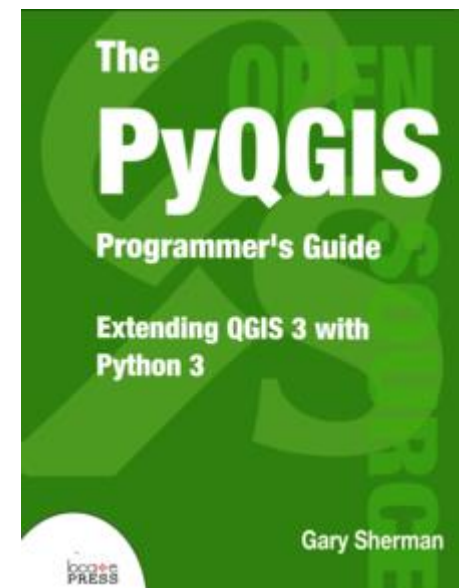
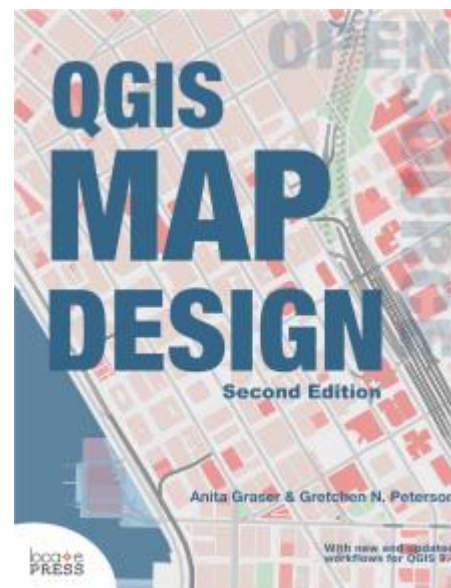
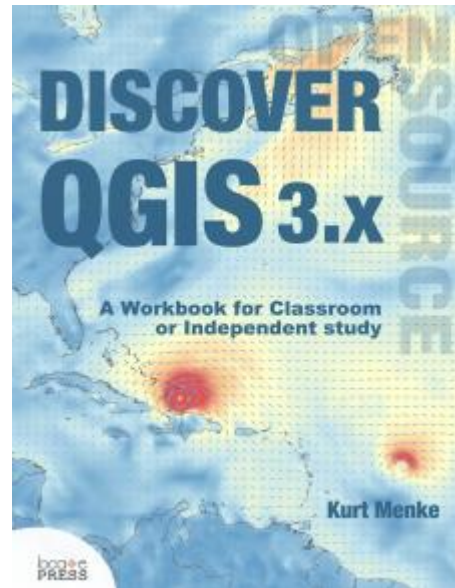
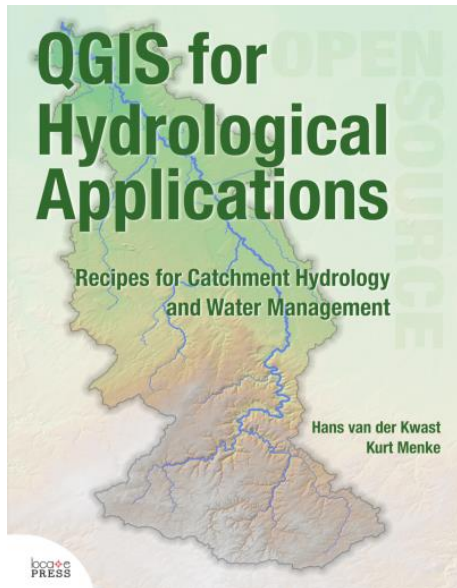


Resources/Documentation

- Project Website - <http://qgis.org>
- QGIS Documentation
 - Training Manual - https://docs.qgis.org/3.16/en/docs/training_manual/
 - User Manual - https://docs.qgis.org/3.16/en/docs/user_manual/
- pyQGIS Documentation
https://docs.qgis.org/testing/en/docs/pyqgis_developer_cookbook/

Resources/Documentation

- <https://www.qgis.org/en/site/forusers/books/index.html>



Resources/Documentation

Today's Tutorial

- [QuickMap Services Plugin](#)
- [Overview of Interface](#)
- [Navigating the Map Canvas](#)
- [Reprojecting and Transforming Data](#)
- [Adding Your First Layer](#)
- [Working with Vector Data](#)
- [Symbology](#)
- [Classifying Data](#)
- [Labels](#)
- [Saving a Dataset to Another CRS](#)

Contributing to QGIS

Contributing to QGIS

- Main GitHub Project - <https://github.com/qgis>
- QGIS Code - <https://github.com/qgis/QGIS>
- Documentation - <https://github.com/qgis/QGIS-Documentation>

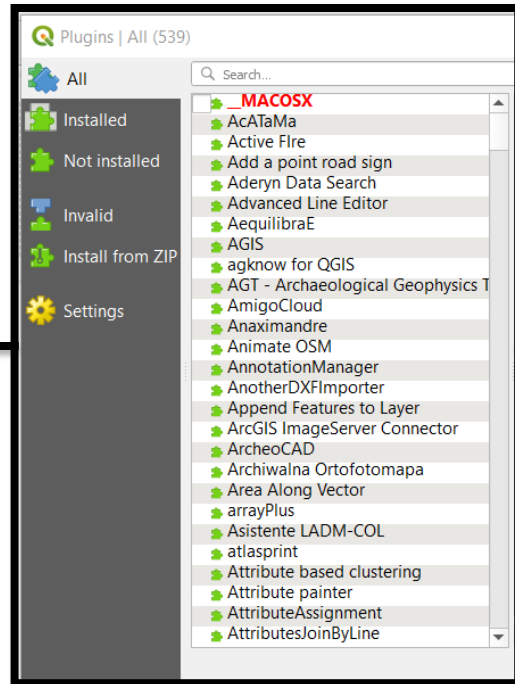
- General guidance on Contributing
 - <https://opensource.guide/how-to-contribute/>

- QGIS Contribution guidelines
 - https://docs.qgis.org/testing/en/docs/developers_guide/
 - https://docs.qgis.org/testing/en/docs/documentation_guidelines/index.html
 - https://docs.qgis.org/testing/en/docs/training_manual/appendix/contribute.html

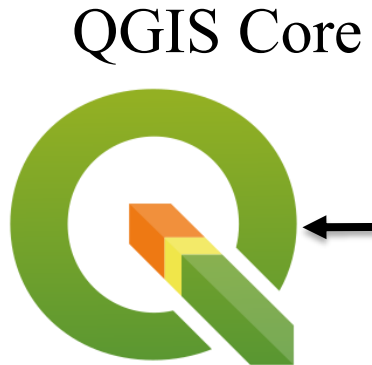
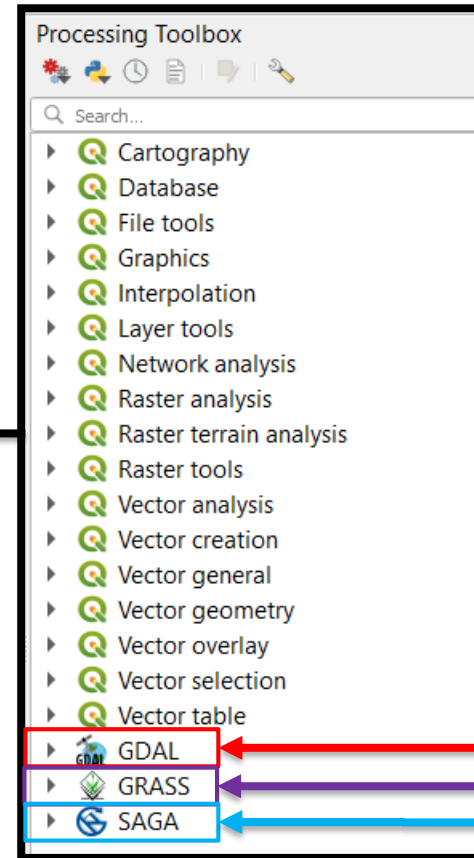
Troubleshooting

Troubleshooting

Plug Ins



Processing



<http://gdal.org>



<https://grass.osgeo.org/>

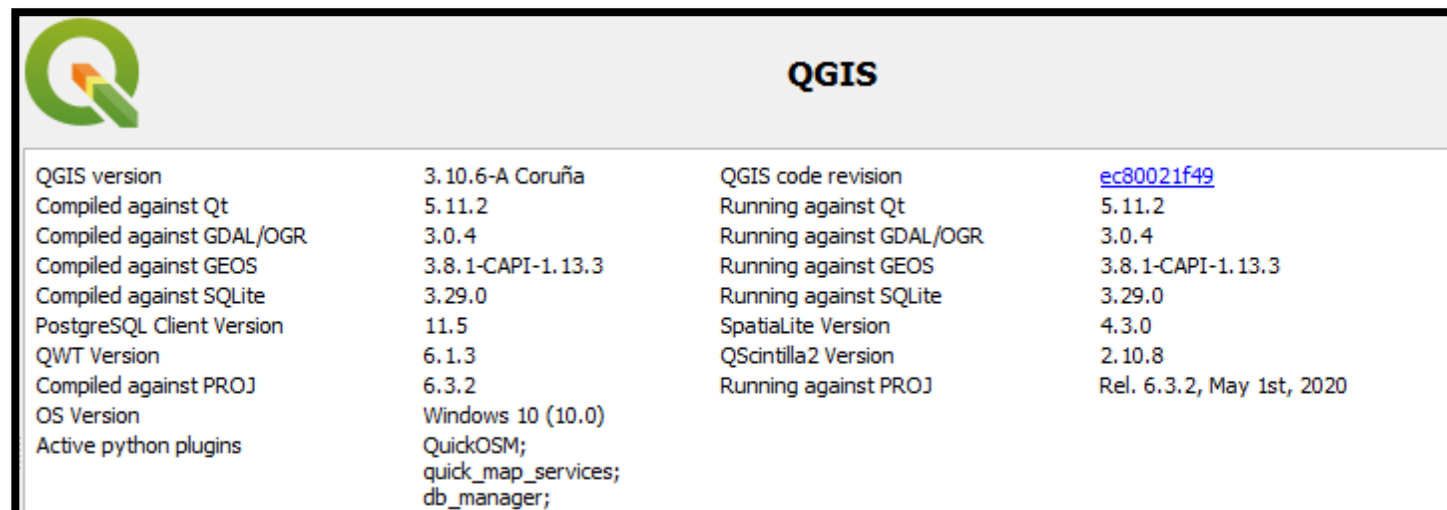


<http://www.saga-gis.org/en/index.html>



Troubleshooting

1. Determine if its QGIS or a Plugin
2. Check version numbers (In QGIS: Help → About)
3. Look up documentation – make sure you are running it properly
4. Check gis stackexchange - <https://gis.stackexchange.com/>
5. Do a web search
6. Check Github project and check if an “issue” is reported (<https://github.com/qgis>)
7. Report issue – or post on stackexchange to get help.



QGIS			
QGIS version	3.10.6-A Coruña	QGIS code revision	ec80021f49
Compiled against Qt	5.11.2	Running against Qt	5.11.2
Compiled against GDAL/OGR	3.0.4	Running against GDAL/OGR	3.0.4
Compiled against GEOS	3.8.1-CAPI-1.13.3	Running against GEOS	3.8.1-CAPI-1.13.3
Compiled against SQLite	3.29.0	Running against SQLite	3.29.0
PostgreSQL Client Version	11.5	Spatialite Version	4.3.0
QWT Version	6.1.3	QScintilla2 Version	2.10.8
Compiled against PROJ	6.3.2	Running against PROJ	Rel. 6.3.2, May 1st, 2020
OS Version	Windows 10 (10.0)		
Active python plugins	QuickOSM; quick_map_services; db_manager;		

Let's Explore QGIS

Questions

Please fill out tutorial evaluation:

<http://rccs.bu.edu/eval>

Email me at:

help@scc.bu.edu