Open Source &

The QGIS Project
History

I just want to see my data on a map!

The QGIS project
History

- 2002: Created as a viewer for the PostGIS spatial database
- 2007: Became a project of the OSGeo Foundation
- 2009: QGIS 1.0
- 2013: QGIS 2.0
- 2018: QGIS 3.0 - ready for prime time!
- Currently:
  - ~2000 contributors
  - millions of users (and growing fast!)

The QGIS project
Free & open source

What is Free & Open Source Software (FOSS)?
- Free = no cost ("gratis")
- Free = freedom ("libre")

QGIS:
- Permissive licence (GPL)
- Powered by community

The QGIS project
Funding

Core funding ~€210K per year
- security, installers, bug fixes
- A small fraction of the total "QGIS economy"

Top 3 sources in 2023: [1]
- Sustaining Members Program - 65%
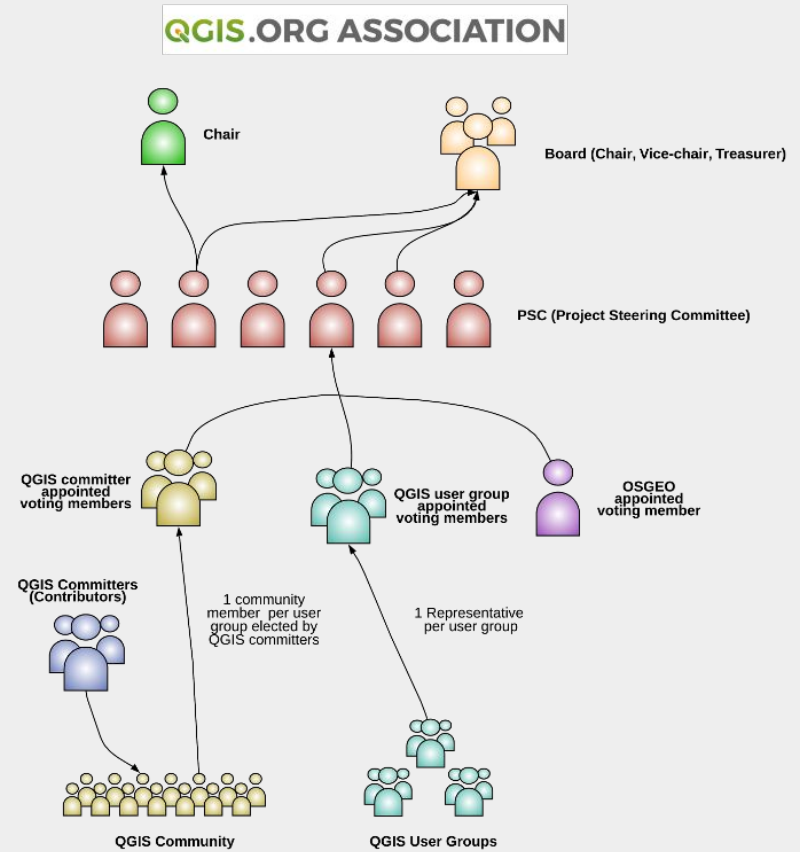- Donations - 25%
- Training courses - 8%

[1] https://www.qgis.org/en/site/getinvolved/governance/finance

The QGIS project
Governance

Community-driven

QGIS.ORG ASSOCIATION

Chair

Board (Chair, Vice-chair, Treasurer)

PSC (Project Steering Committee)

QGIS committer appointed voting members

QGIS user group appointed voting members

OSGEO appointed voting member

QGIS Committers (Contributors)

1 community member per user group elected by QGIS committers

1 Representative per user group

QGIS Community

QGIS User Groups

The QGIS project
Road map[3]

Latest release (LR) every 4 months
- contains the latest functionality
- currently v 3.34 (RC)

Long term release (LTR) every 12 months
- optimized for stability instead of new features
- currently v 3.28

LR/PR	3.32.0	3.28.8		2023-06-23	26	4
PR	3.32.1	3.28.9		2023-07-21	30	4
PR	3.32.2	3.28.10		2023-08-18	34	4
PR/FF	3.32.3	3.28.11	3.33	2023-09-15	38	6
LTR/PR	3.34.0	3.28.12		2023-10-27	44	4
PR	3.34.1	3.28.13		2023-11-24	48	4
PR	3.34.2	3.28.14		2023-12-22	52	4
PR/FF	3.34.3	3.28.15	3.35	2024-01-19	3	5
LR/PR	3.36.0	3.34.4		2024-02-23	8	4

The QGIS project

Plugins

- >1000 plugins in the QGIS Official Plugin Repository
- Plugins in this repo are also free & open source
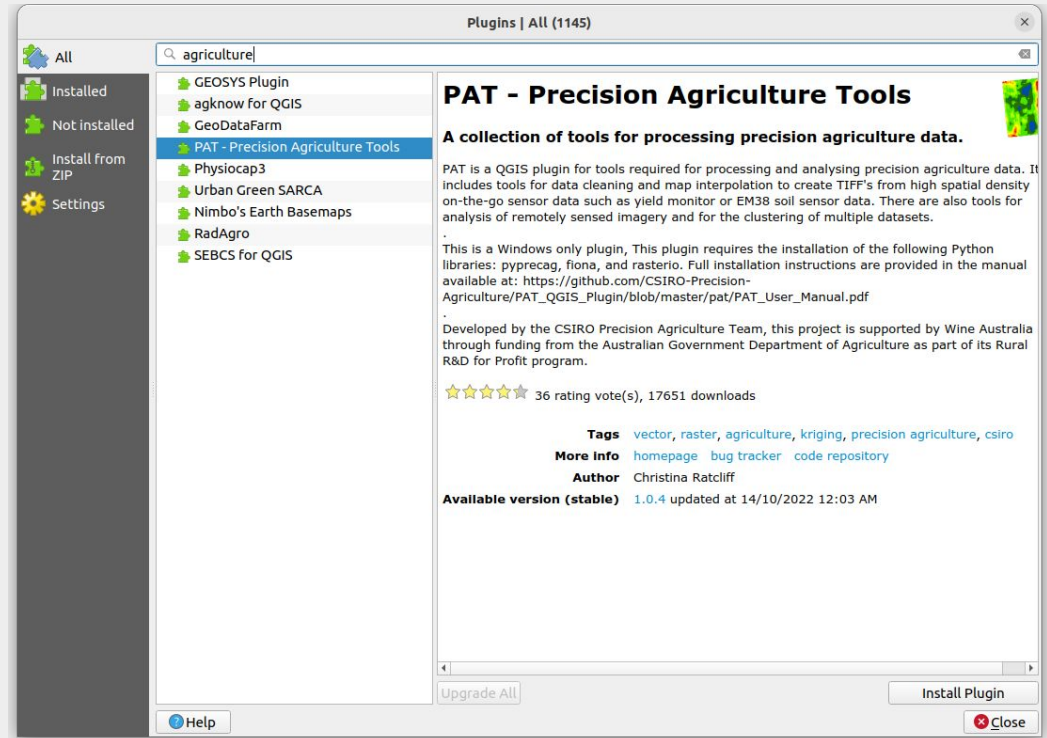
The QGIS project
User & organisation support

Massive user community

Hundreds of companies around the world provide QGIS
development & support services

The QGIS project
How to contribute & get involved

It's not just writing code!

- Write bug reports in the [issue tracker](#)
- Documentation & translation
- Participate in support channels
- Sustain & donate
- Hire the community to help you

The open source geospatial "stack"
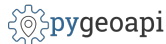
GIS concepts

Layers

Working with data as "layers"
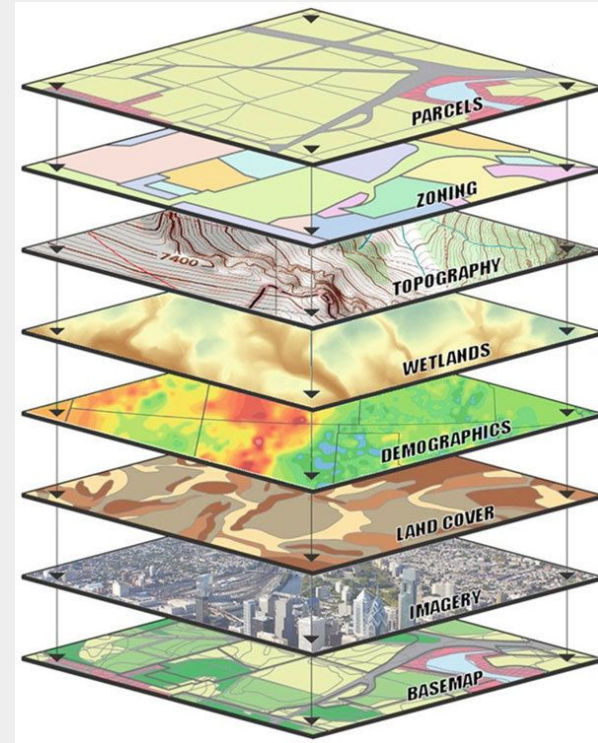
GIS concepts

Vector vs Raster

Vector

Raster

GIS concepts

Points, lines, and polygons

POINTS: Individual **x, y** locations.

ex: Center point of plot locations, tower locations, sampling locations.
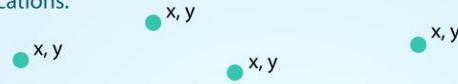
LINES: Composed of many (at least 2) vertices, or points, that are connected.

ex: Roads and streams.
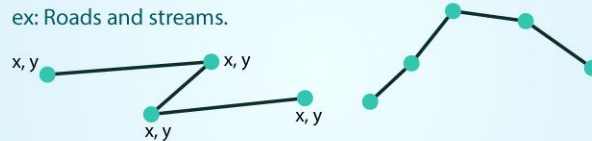
POLYGONS: 3 or more vertices that are connected and **closed**.

ex: Building boundaries and lakes.
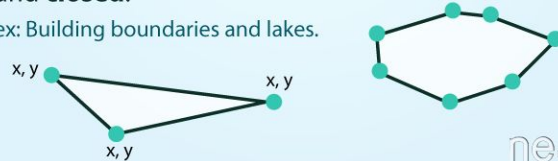
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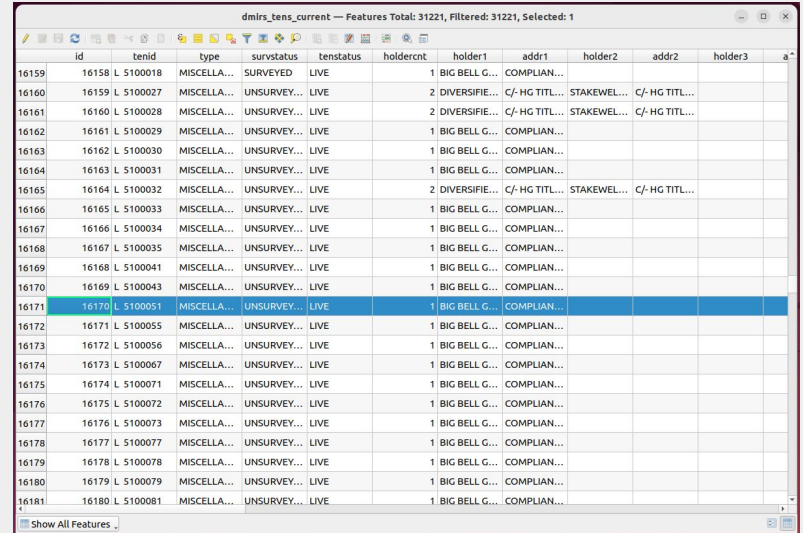
Image Source: National Ecological Observatory Network (NEON)

GIS concepts
Geometry & attributes

Geometry

Attributes

GIS concepts

Coordinate systems

Geographic

Map Projection Families
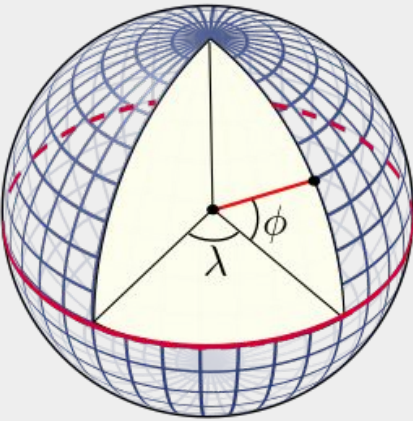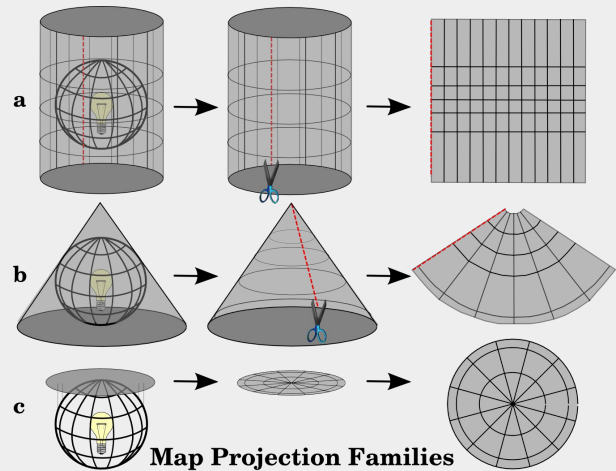
Projected

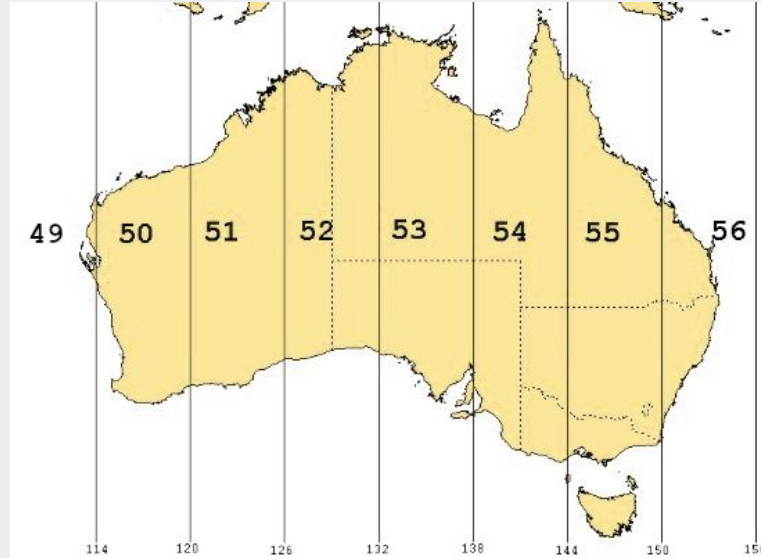# GIS concepts

Coordinate systems

MGA zones of Australia

GDA94: EPSG:28349 - EPSG:28356
GDA2020: EPSG:7849 - EPSG:7856