# Geopandas in KNIME

## Quick start

- 1. In KNIME click File > Import KNIME Workflow...
- 2. Browse to N:\Projectbureau\KNIME\geopandas-workflow\ and open the example workflow geopandas-workflow.knwf.
  - Or clone this repository to your local computer take it from there.
- 3. Copy the entire folder py into your KNIME workspace folder. This is where the nodes will import the source code from.
- 4. Copy and paste the specific nodes you need from the example workflow to your own workflow.
- 5. Optionally (probably) edit parameters in the nodes. See the # PARAMETERS section inside each node.

## Available nodes

- Read shapefile
- Inspect shape
- Reduce precision
- Simplify
- WKT to AC
- Centroids
- Distance/duration matrix
- Isochrones
- Dissolve
- Spatial join

View the KNIME workflow and the demos folder for examples on how to use these.

### Some extra info

#### Geographic projections

Geopandas has great documentation about projections and coordinate reference systems.

Some properties of two very common CRS:

- WGS84 (EPSG: 4326)
  - Amersfoort at (52.1561110, 5.3878270)
  - o In degrees
  - ~ 70 km/degree longitude (horizontal)
  - ~ 110 km/degree latitude (vertical)
- RD New Amersfoort (EPSG: 28992)
  - Amersfoort at (142892.19, 470783.87)
  - In meters