

# Parallel DCEL Construction Report

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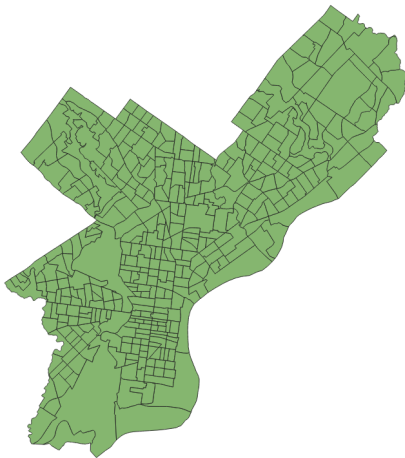
# Outline

DCEL construction test

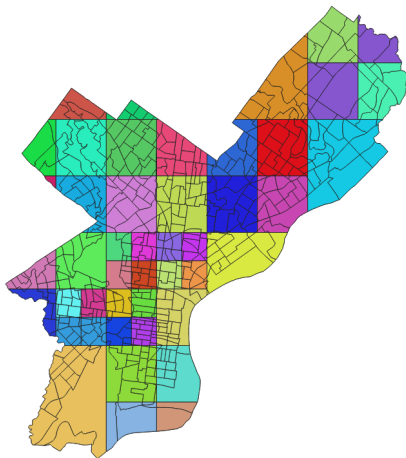
DCEL Merger

# Phili dataset

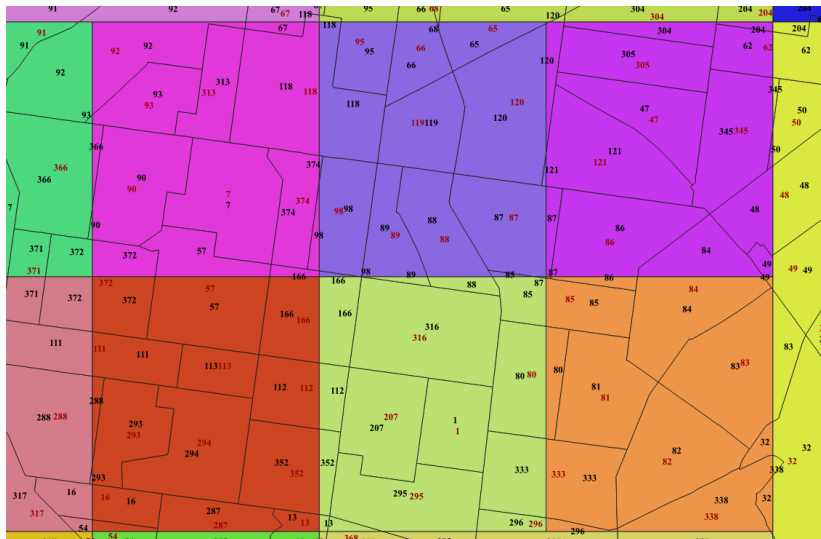
- ▶ Philadelphia counties 2010
- ▶ 385 polygons



# Phili dataset

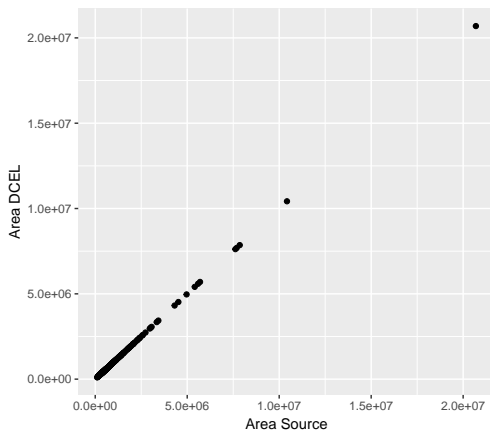


## Phili dataset



# Phili dataset

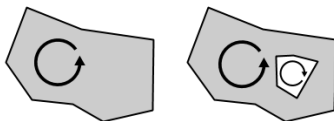
- ▶  $R^2 = 1.0$
- ▶  $RMSE = 0.0299 (\approx 3cm^2)$



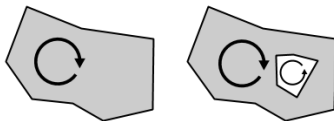
## Some notes

- ▶ Fixing issues with face label assignment.
  - ▶ Polygon orientation is quite important.
- ▶ Some problems with larger dataset:
  - ▶ How to deal with multipolygons and holes?

**Simple Features: Counter-Clockwise**



**ESRI Shapefile: Clockwise**



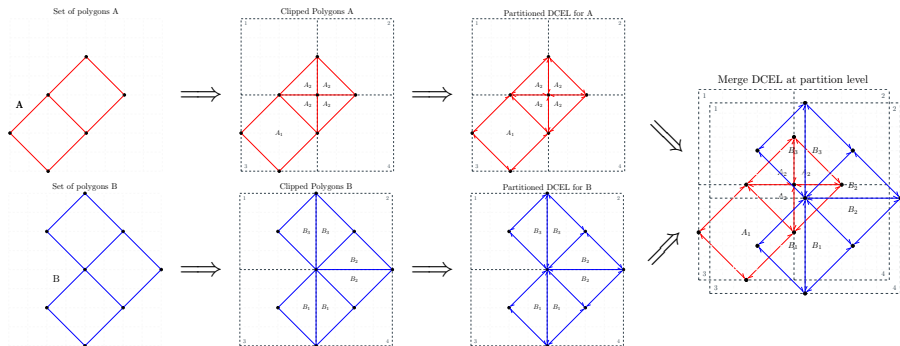
# Outline

DCEL construction test

DCEL Merger



## DCEL merger flowchart



## DCEL merger flowchart

