



HOOTENANNY:

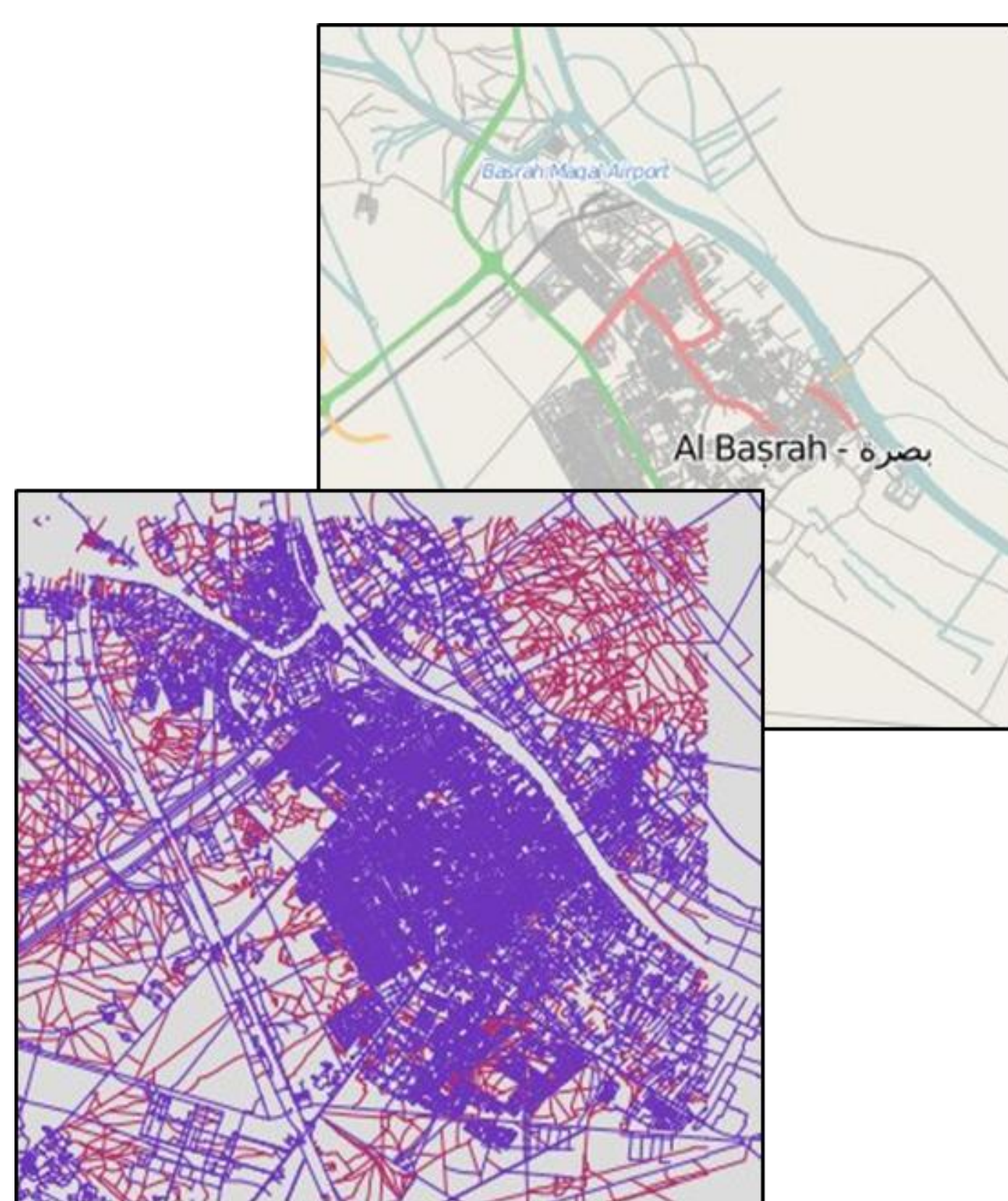
Web Enabled Geospatial Vector-Data Conflation and Map Generation

Merging the Data

Lots of disparate data from various sources:

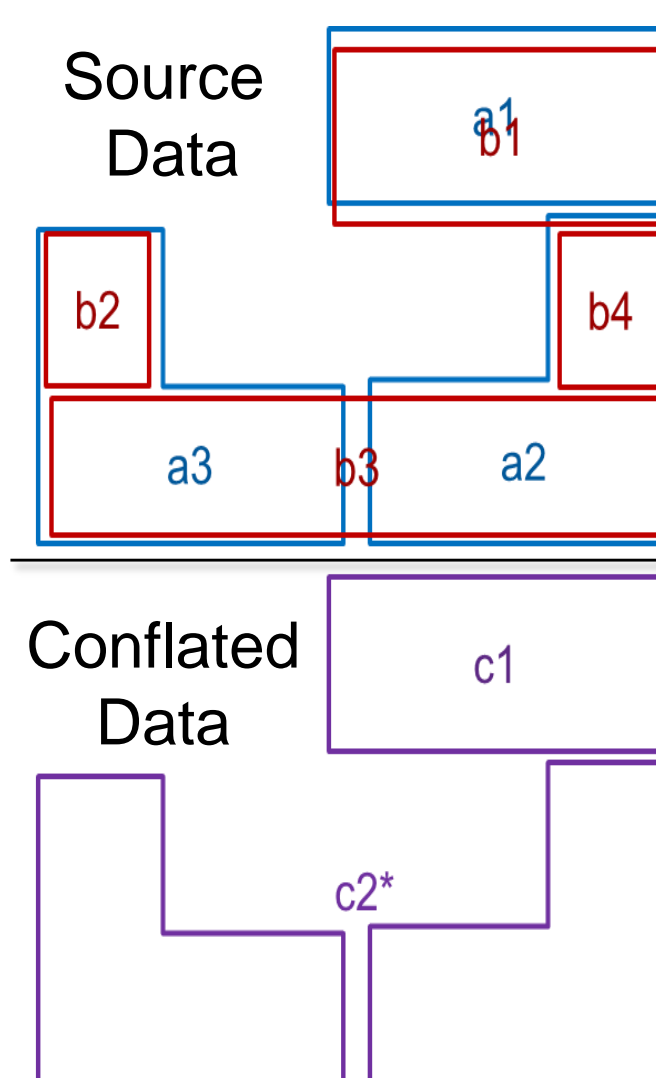
- Commercial
- Crowdsourced
- Government

No single source provides all the necessary contextual information. Merging together the desirable features of attribution and geometry from multiple datasets creates a "best of breed" dataset.

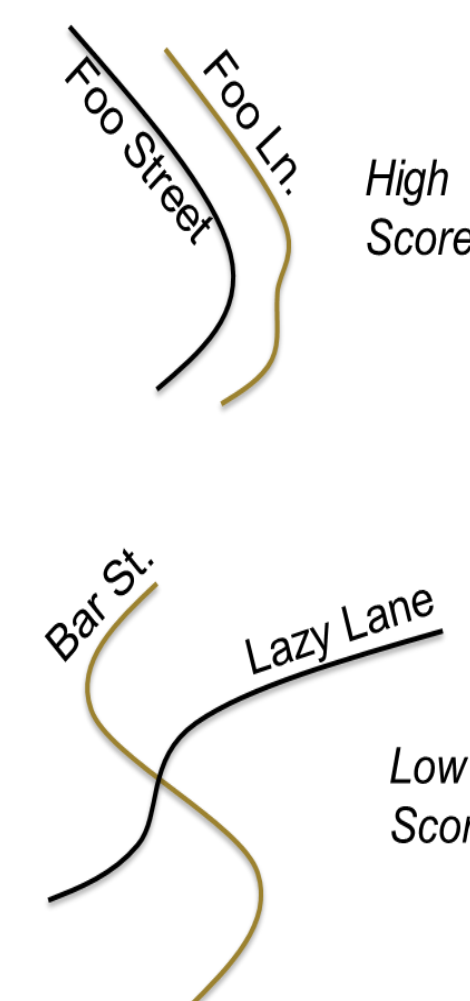


Reference Conflation Principles

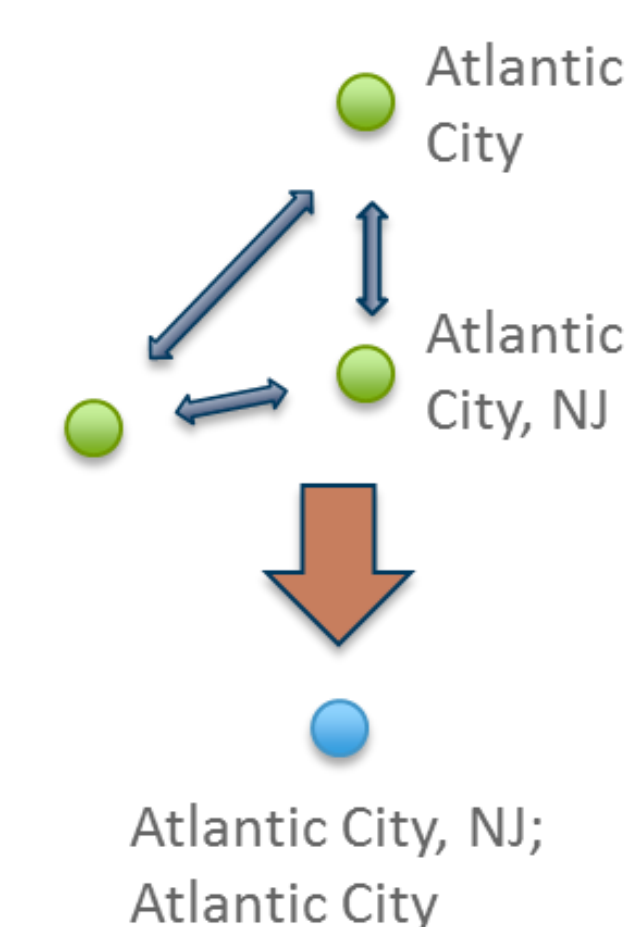
Polygon conflation selects the most detailed depiction regardless of source. In the example, c2 is a new multi-part building that contains the tags of a2, a3, b2, b3 and b4.



Line conflation looks at attribution, geometry, and distance to decide if lines match. Unmatched lines will be added as new features to the dataset.

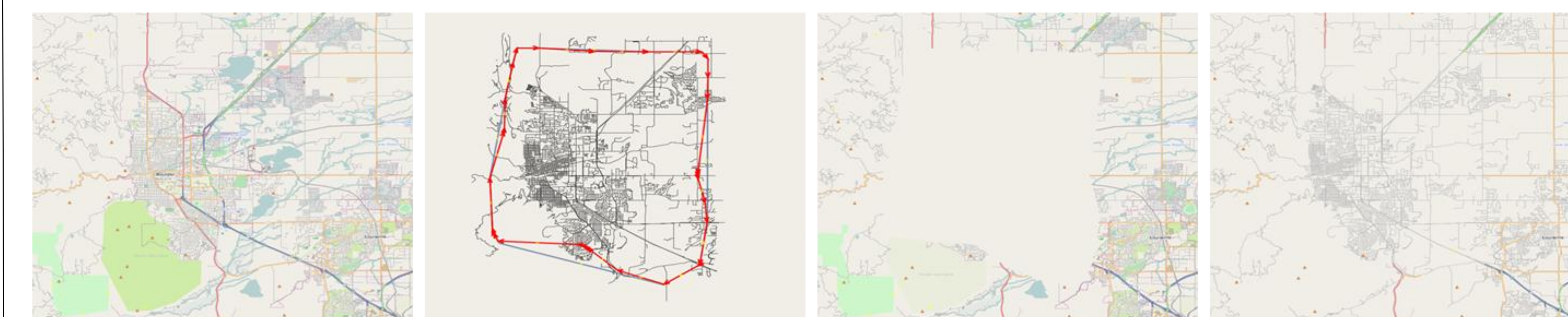
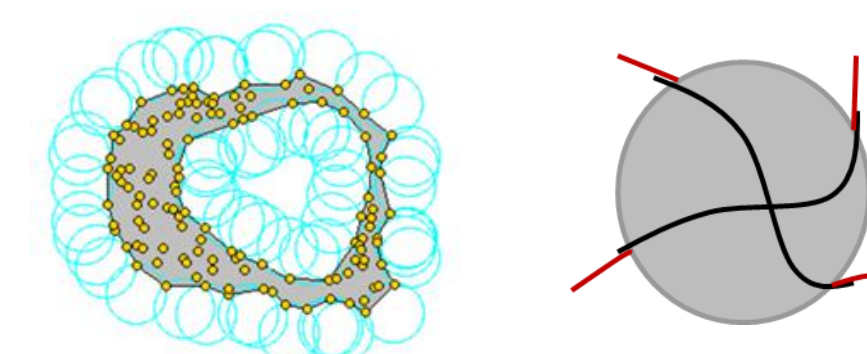


POI conflation merges points based on attributes and distance. It favors the reference location and transfers attribution information.

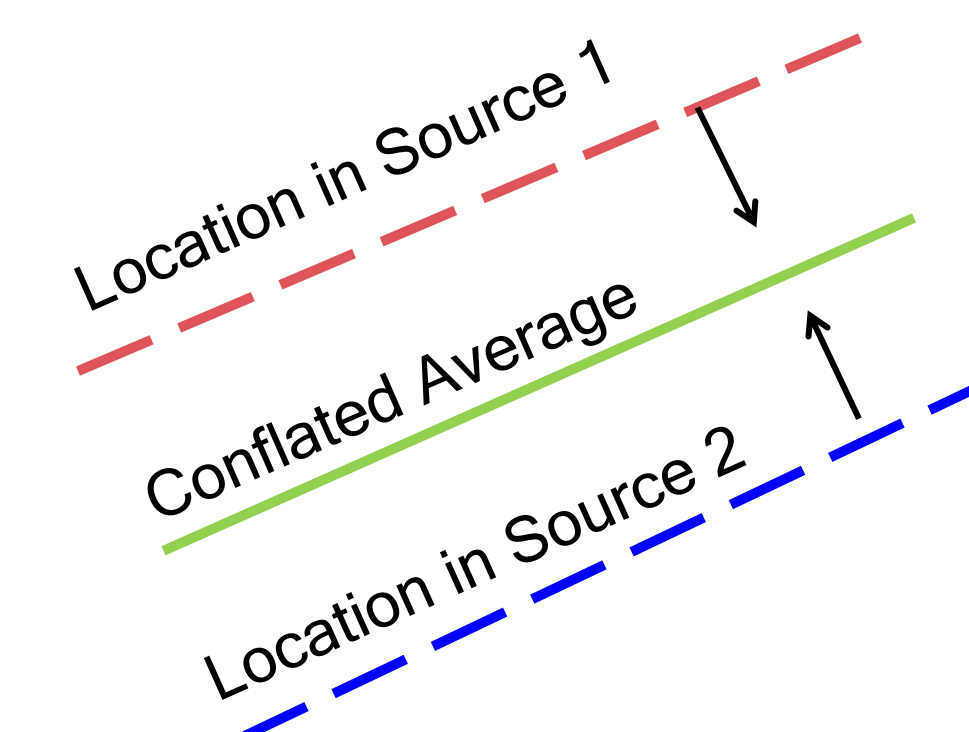


Cookie Cutter and Average Conflation

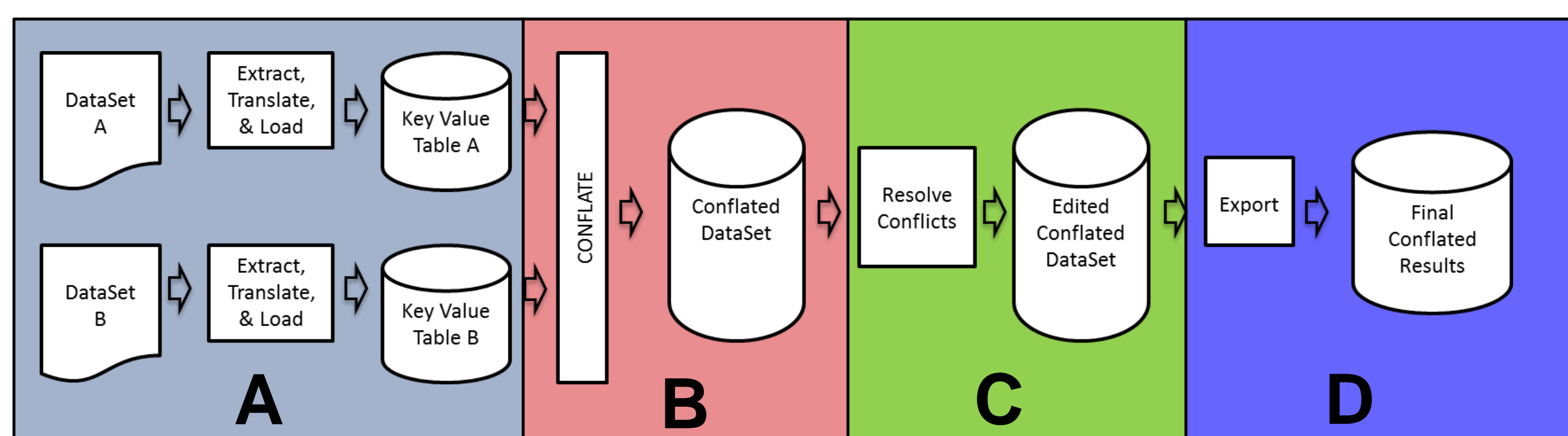
Use **Cookie Cutter** when one data set is clearly superior. Cut out a part of the larger file, replace with the more detailed "cookie" file, and conflate around the edges.



Use **Average Conflation** when it doesn't make sense to use reference or cookie cutter. It places the conflated dataset line at the average distance between the two sources.

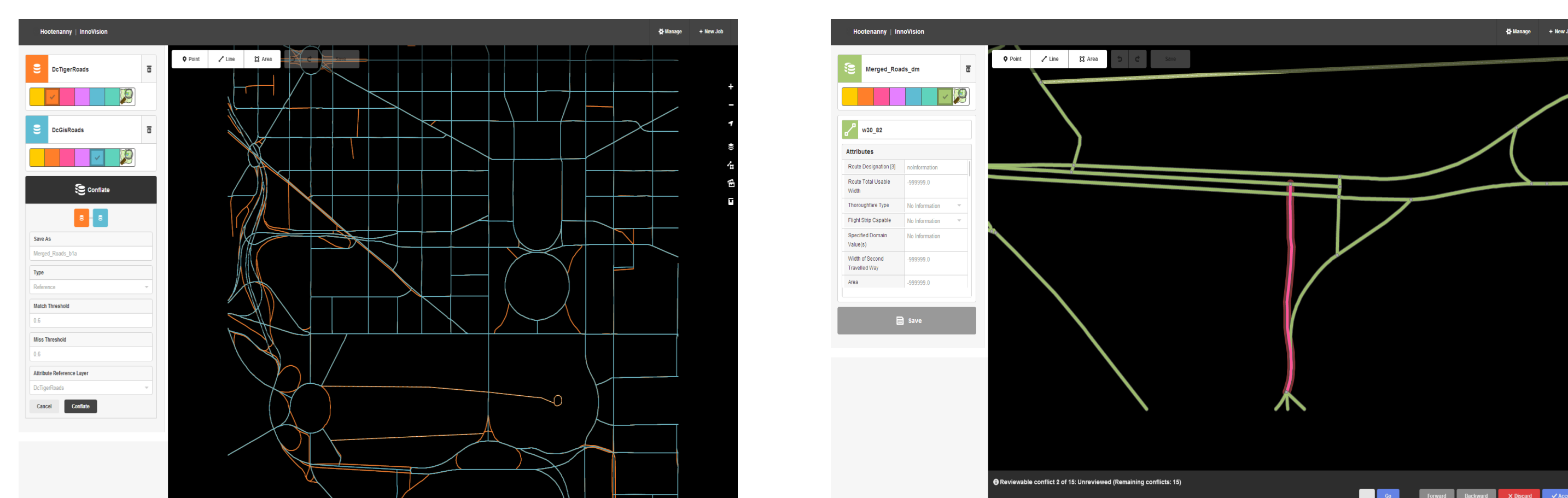


The Hootenanny Conflation Workflow



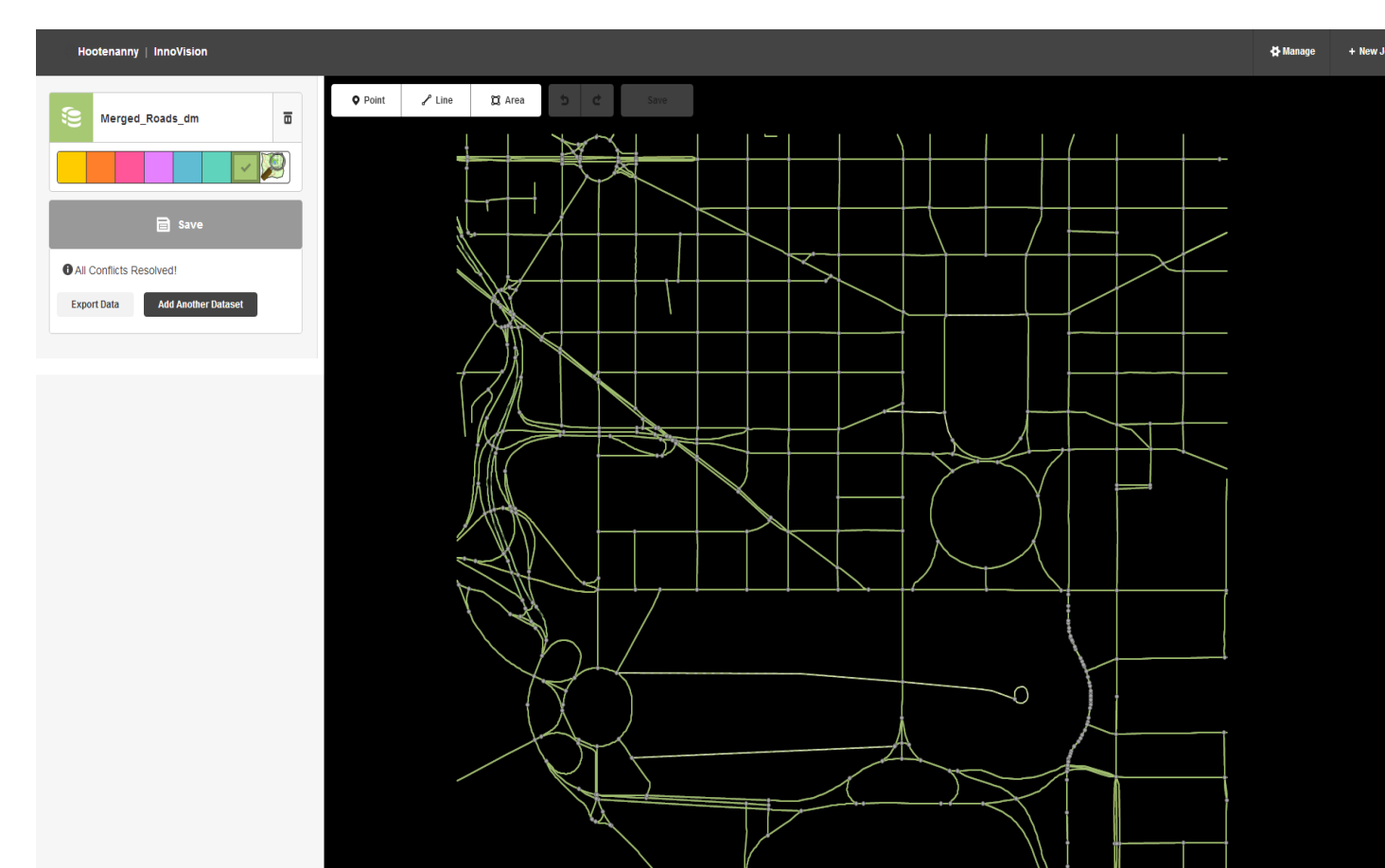
A	Extracting, translating, and loading data into the same key value schema
B	Using the algorithm to match points of interest (POIs), roads, and buildings in an automated fashion. Creates one aggregate dataset
C	Manual resolution of conflicts where the algorithm is uncertain if a feature should be merged or added as a new feature
D	Export final results in a variety of schemas and data formats for import into other software

Screenshots Using Hootenanny



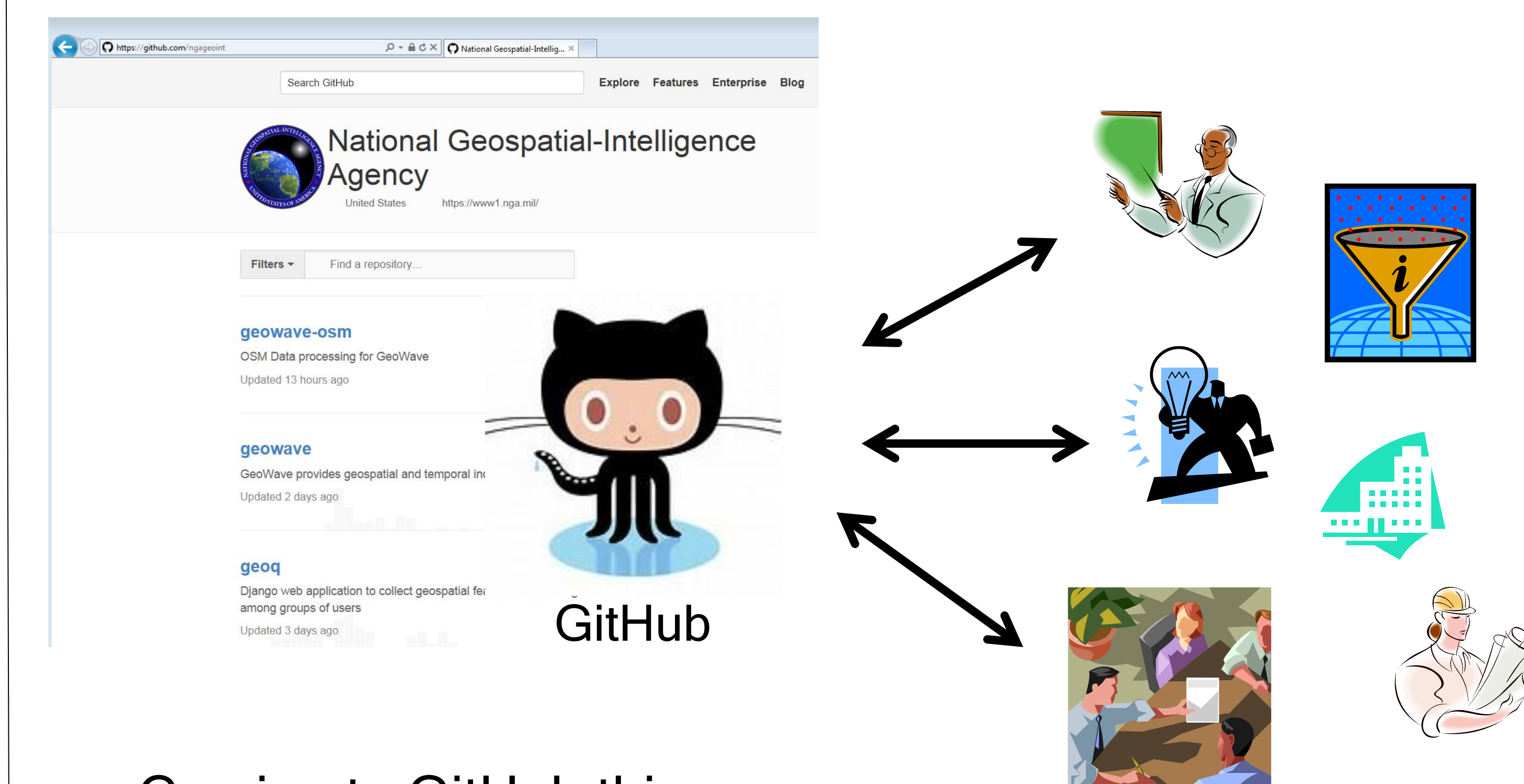
Put two datasets into the UI and hit conflate

Manually resolve conflicts



That's it! Export data for use in other software

Open Source Technology



Coming to GitHub this summer for all to use and contribute!

<https://github.com/ngageoint>