



POPULATION ANALYSIS SERVICE

Supports Risk Assessment and Pipeline
Classification Projects

OUR SOLUTIONS

In today's dynamically changing world, operators rely on data systems to make data drive decisions that impact their operating systems. As these data systems mature, operators can begin asking and answering tough questions. One such maturing field is asset proximity analysis. In particular, structures and occupancies are major considerations for operators. The demand for this analysis is driven by stakeholders and regulators alike as they generate information useful for asset classification, load forecasting, and more.

A major hurdle of asset proximity analyses is the scale of the problem. Assets span vast distances and frequently reside in densely populated areas. Furthermore, population behaviors are dynamic and difficult to model.



EN Data Solutions is uniquely positioned to offer a team with extensive GIS, analytics, and integrity management expertise. EN's team understands operators' systems and can answer their difficult questions.

EN Data Solutions specializes in custom solutions to help its clients locate, analyze, and interactively connect data to their assets and customers. This can be done through several services EN offers using various tools, processes, and modeling systems. This provides EN's clients with a deeper understanding of their data and enables them to make and support critical decisions within their organization.



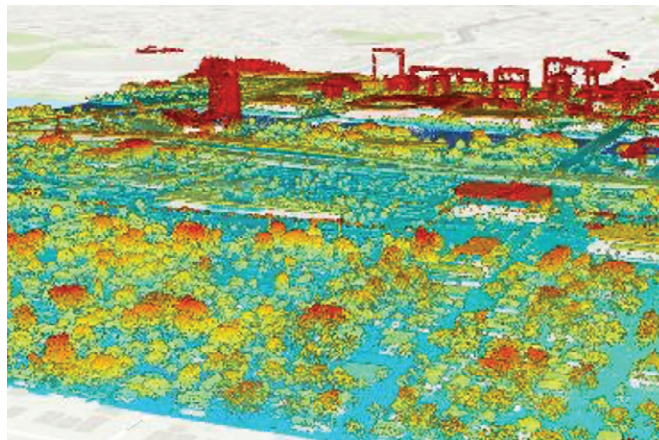
One of these solutions, a custom population analysis tool, provides operators with an aggregated structure data source with an assigned estimated population. The tool outputs can be used as a supplemental data source to drive operating and planning decisions and to satisfy regulatory requirements. Activities that can benefit from this analysis include:

- Class location determination
- HCAs & MCAs assessments
- Risk modeling
- Demand forecasting
- Business district identification

POPULATION ANALYSIS TOOL

The custom population analysis tool aggregates multiple structure data sources and operators' customer information into one data collection. As the structure data sets are aggregated, the structures are classified as residential and non-residential.

The residential structures are assigned an estimated population based on census data and/or other data sources to meet operator needs. The non-residential structures are further classified into a structure type, that uses either data sources or Natural Language Processing (NLP) to classify the structure type based on the business name that is currently occupying the structure. The non-residential structures are then assigned an estimated population based on the structure type and size.



The analysis tool results are aggregated into a single structure feature class representing the spatial location of the structure, assigned population, and other relevant information. The results can be used in various analyses to meet the operator's needs.

POPULATION ANALYSIS TOOL EXPERIENCE

EN's data solutions team has developed a custom population tool that can be applied to any service area. The tool parameters are fully customizable to meet the needs of EN's clients.

For example, EN Data Solutions assisted a client by estimating population for 1.7 million structures within their service area. The results from this population analysis were used within the client's natural gas distribution risk model to calculate the consequence factors within their system.