# ANALYTICS USE CASE | Utility

## Advanced Analytics Visualization – 811 Call Before You Dig Locates

At a publicly traded gas utility company, a number of different advanced analytics tools, designed to process large datasets, provided immediate visibility and value.

### 811 Repeat Locates

After multiple requests from the business users studying facilities damages and 811 locate data, plus the creation of several individual reports, the Data Analyst was looking for a better way to satisfy the client's informational demands.

The Analyst took time to do some self-study with RStudio's visualization tool, Shiny, and in a matter of days developed a custom interactive application that allowed the business client to self-serve and analyze her data. Almost immediately, she was able to investigate a hunch and identify cases of repeat underground gas asset locating services. The data was presented both as data tables and geo-spatially on the service territory map.

Data was curated by parsing through publicly available 811 locate data and developing a regularly scheduled job to load the data into an R server running on a Hadoop cluster. Custom aggregations and multiple data dimensions of locating service data provided the ability to view the data at a lower level of granularity than previously possible. This made it easy to pinpoint repeat locates.

Interestingly, this Use Case shaped the Analytics team's charter and operating principles. The excitement of such a quick and decisive answer, and the potential savings associated with reducing repeat locates, almost got baked into an Executive review before the Operations folks had a chance to review the data. Knowing that there could be missing factors that explained the situation, or, if it was accurate, could serve as a political blind-side to Operations, the Analytics Analyst and Business client decided to meet with and review the data with Operations.

It turns out that there was a rationale for the practice, and, there was an opportunity to improve efficiency. The lesson learned was, had the Analyst and Business client charged ahead with the data, they may have damaged the trust of their colleagues. It was agreed within the Analytics team that, good or bad, insights and outcomes belong to the business function that had accountability for the business process. Leave no fingerprints. Trust is the catalyst for partnership and advanced analytics. Ultimately, the data was shared with Operational leaders and led to a positive discussion about current practice and opportunities for improved efficiency and cost management.

**Summary Key Points:**
- Even though the data was "clean" in the sense that it came from a structured source with limited columns, 80% of the time for this Use Case was accessing, parsing, and preparing the data to make it fit for use.
- Once the data was ready, and with a small investment to learn an advanced analytics visualization tool, generating insights was relatively easy.
- Conclusion? Data Science was the easy part. It was 10% inspiration and 90% perspiration!

## Keller Schroeder's Data Strategy Group

At Keller Schroeder, we absolutely subscribe to the idea that Data Science, Machine Learning, and Artificial Intelligence are skills that every organization should have, and, in a connected, social media, *Internet of Everything* world, are vital to your company's future. **We think it is that simple - not easy, but simple.**

Keller Schroeder's *Data Strategy Framework* is a comprehensive implementation framework developed to help your organization establish the data lifecycle management practices necessary to successfully apply advanced analytics for your business benefit.

**DATA STRATEGY FRAMEWORK**

*Contact Us For Your Complimentary Data Strategy Framework*

**manage data. do science. get better**

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