

## Project Profile - Garland Power & Light

1755 Gasoline Alley, Garland, TX 75040

<http://www.garlandpower-light.org>



### GIS Retired Assets & Electric Transmission

A locally owned and controlled not-for-profit municipal utility, Garland Power & Light (GP&L) serves 68,000 customers, making them the third largest municipal utility in Texas and the 39th largest in the nation. Garland's electric distribution system has 1,007 miles of overhead lines and 1,000 miles of underground lines. Its transmission system consists of 22 substations and 133 miles of transmission lines.

#### Project Highlights:

- Retirement Data Model
- Custom Retirement Tool
- Transmission Data Model
- Transmission Tracing

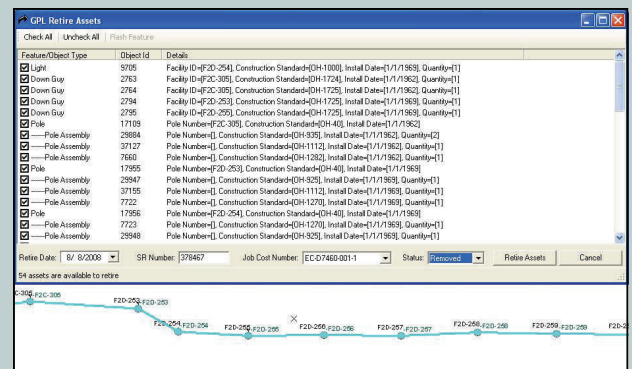
GP&L initially deployed their ESRI and Telvent Miner & Miner GIS in late 2004 based on the standard ESRI Multispeak model. This approach was chosen because it was a cost effective path to getting the GIS deployed with a proven and standardized methodology. The Multispeak data model satisfied the initial requirements of the GIS department but as exposure to the new GIS grew, so did the requirements for capturing additional levels of asset-based data. When GP&L management deemed the GIS as the most accurate source of financial asset data within the company, the pressure only intensified.

In 2007, GP&L decided to enhance the enterprise GIS data model to better capture retired assets and to include transmission assets which were previously documented in spreadsheets and shapefiles. GP&L enlisted SSP Innovations to assist with updating the Multispeak data model to effectively manage the new data and to create software to maintain the data going forward.

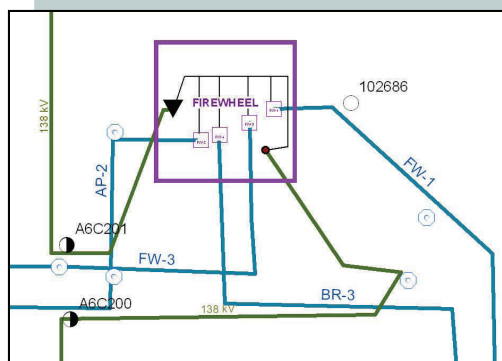
#### Technology:

- ESRI ArcGIS Desktop
- ESRI ArcIMS
- ESRI ArcSDE
- TM&M ArcFM
- Microsoft SQL Server
- Microsoft .Net

SSP Innovations began the project by holding data modeling workshops to determine the exact requirements for capturing the retired and transmission data. It was determined that the retired assets must be tracked with the same level of detail as when the assets were active in the GIS. The data model was updated with a new retirement dataset which included feature classes for each reportable asset type. SSP Innovations then developed an automated retirement tool to allow the GIS technicians to quickly and accurately retire large numbers of feature and object data on a job by job basis.



Custom retirement tool captures key data and applies en masse



Substation with transmission & distribution

The transmission data was mostly modeled as new subtypes of the existing electric feature classes. For example a new overhead transmission subtype was added to the overhead conductor feature class. This allowed SSP Innovations to use the existing ArcFM Feeder Manager configuration to trace out the transmission features between each substation. Once the new data model was in place SSP Innovations loaded all of the existing transmission data from the spreadsheets and shapefiles into the ArcSDE database, QA'ed the data ensuring that full connectivity was intact, and finally traced out the full transmission network.