

# Field Express Chameleon – A Case Study

## Trinidad & Tobago Electricity Commission: Making Enterprise GIS A Reality

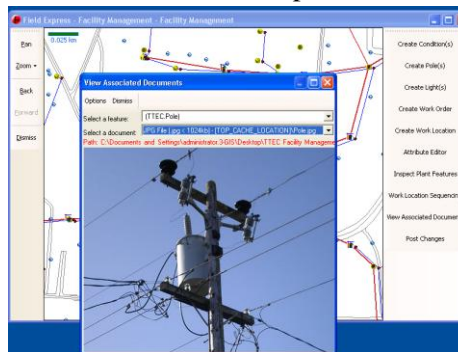


The Trinidad & Tobago Electricity Commission (T&TEC) provides power to the twin island republic of Trinidad and Tobago. Since its inception in 1946, T&TEC has been focused on the operation and maintenance of the country's Transmission and Distribution network. T&TEC generates and distributes electricity to 400,000 domestic, commercial, industrial and street lighting customers in 5 regional divisions. With the goal of improving reliability and customer service, T&TEC recently identified the need to develop an Enterprise GIS.

As part of T&TEC's analysis, envisioned benefits of an Enterprise GIS were:

- Better Customer Care – Meter Readers, Consumer Investigators and Emergency Crews will be able to locate customers and therefore improve responsiveness to customers' service needs.
- Improved Plant Maintenance – The status and condition of outside plant and equipment will be efficiently assessed, categorized and prioritized for maintenance based on location and criticality.
- Improved Facilities Management – A solid inventory of Transmission and Distribution assets; the location of these assets in relation to the environment and the performance of these assets will provide the necessary information needed to make decision relative to maintenance or replacement of the plant.
- Engineering Analysis – Distribution System analyses such as load flows, protection coordination and load balancing would be possible, resulting in improved reliability and quality of the supply for all customers.

To meet these needs, T&TEC turned to 3-GIS to act as its GIS consultants. With a long history of implementing GIS at utilities and an industry leading suite of ArcGIS Server based products, 3-GIS was well positioned to lead T&TEC in this effort. 3-GIS held extensive requirements workshops with T&TEC's GIS team and developed a GIS data model for its Transmission, Distribution and Communication departments. In mid-2008, 3-GIS began migrating T&TEC's existing landbase data from shapefiles, CAD files, and other proprietary formats into T&TEC's geodatabase. To collect distribution data for the geodatabase, T&TEC utilized 3-GIS's Field Express Chameleon software. One of the main reasons they selected 3-GIS was the ability to bring GIS into the field and utilize the full power of ArcGIS Server using handheld devices for:



- Data capture, editing, updating
- Design of line extensions
- Location of plant and customers
- Vegetation and corridor management
- Line tracing and inspections

3-GIS's Field Express Chameleon software brings the following capabilities to utilities seeking a mobile GIS solution:

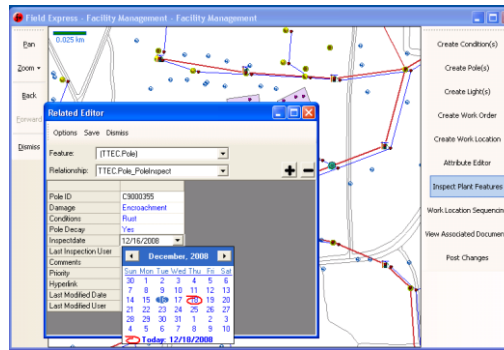
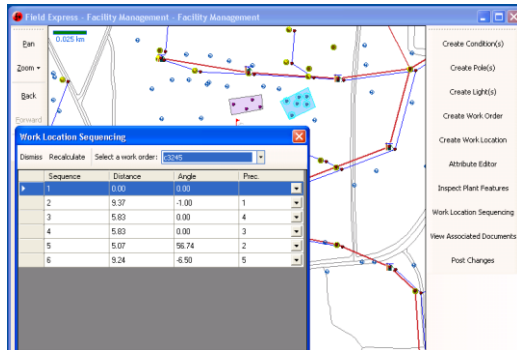
- A dynamic user interface based on the user's responsibilities

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- Map symbology and data dictionary driven from geodatabase
- Automatic synchronization of edits with geodatabase
- Ability to work in a connected or disconnected mode
- Rapid deployment and minimal user training



Working with T&TEC's GIS team members, 3-GIS configured Field Express for data collection activities. T&TEC began testing with a pilot group of 10 technicians utilizing Field Express on Trimble Juno's to inventory their distribution infrastructure.

After 5 months of data collecting with the pilot group, T&TEC decided to move forward in production. "Field Express allowed us to input much more field data than was previously collected under Terrasync and thus reduced the overall cost of data collection – one of the highest costs in development of a GIS," said Curvis Francois, T&TEC GIS Project Manager.

In June 2009, technicians began using Field Express Chameleon as a staking tool to plan new construction. T&TEC has also used Field Express to perform inspections on poles, transformers, lines, substations, and transmission structures. Eventually, T&TEC field crews will utilize Field Express to perform damage assessments and vegetation management activities.



With the GIS rolled out, T&TEC is now looking at integrating the GIS with its other enterprise solutions including AMI, OMS and Asset Management systems. And, later this year, T&TEC will deploy Network Express, the 3-GIS browser-based design and editing engineering tool. With 3-GIS' Field Express Chameleon software and consulting expertise, the Trinidad & Tobago Electricity Commission successfully deployed an enterprise GIS that will aid them in achieving their reliability and service goals.

3-GIS is a premier GIS software development and services company. The company provides customized software and solutions to a variety of companies in the Utilities, Telecommunications and Emergency Management markets. 3-GIS builds, interfaces, and integrates many diverse asset management systems, work management systems, analysis packages and other specialized software. 3-GIS offers an ArcGIS Server-based suite of thin-client asset management products.



[www.3-GIS.com](http://www.3-GIS.com)

Phone: 256-560-0744  
Fax: 256-560-0746  
E-mail: [info@3-GIS.com](mailto:info@3-GIS.com)