



GridGeo ERCOT's New Visualization Tool

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Key limitations of Macomber Map

- May 2014 the Transmission Service Providers requested that ERCOT expose MMap to the TSP control rooms (SCR780)
- However, ERCOT is not equipped to support applications installed at other sites
 - MMap uses a thick client
 - Rendering performance limits ERCOT to 2 concurrent users per Citrix server with a 400 concurrent user max limit

Key design paradigms for GridGeo

- No applications (thick or thin) will be installed by the user, and maintained by ERCOT
- Graphics will be rendered by the client's workstation
- Data change in EMS rendered by client in <10s
- Bare minimum user functionality with v1.0

- Base framework was prototyped in Fall 2015
- But no project was available to drive this technology

Driving Project chosen Spring 2016

Multi-Station Breaker-to-Breaker Oneline

Multi-Station Oneline

Multi-Station 1-line

MS1L

“Missile” project!

GridGeo base functionality

- Model defined Geospatial network map
 - Line voltage and outages identified by color
 - Dynamic data driven popups
 - Satellite imagery layer
 - Easy pan, zoom, and search
- Model defined Substation onelines
- Multiple data sources
 - SCADA
 - State Estimator
 - Study Network
 - PI

“Missile” functionality

- Programmatically drawn compressed oneline
- Retrieve older model and topology
- Add & connect additional onelines
 - Geo-logically positioned onelines
 - Connecting line routing

Demo

- Place demo here