

The Evolving World of Substation Asset Data

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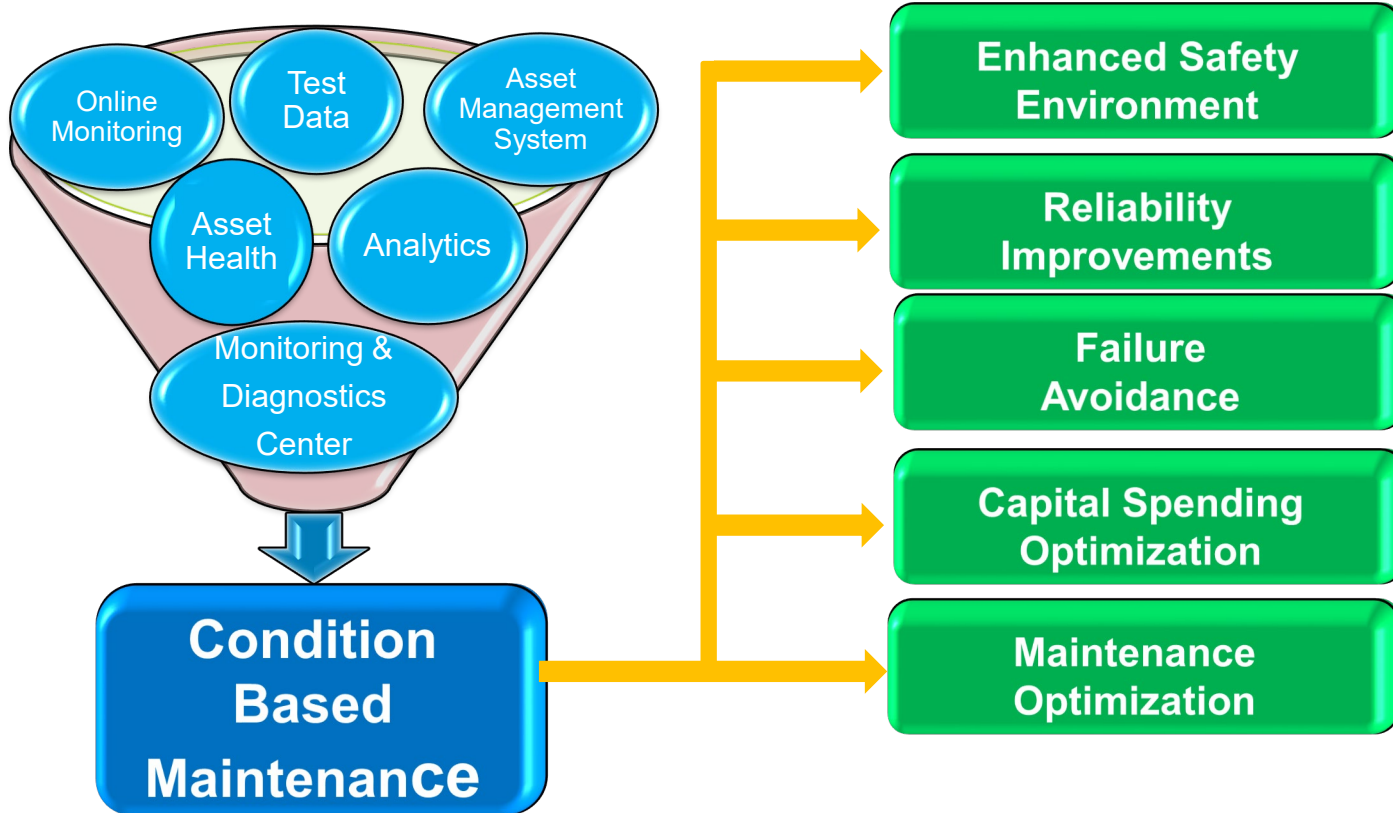
Operations



Substation Assets



Opportunity







Acknowledge the Challenge

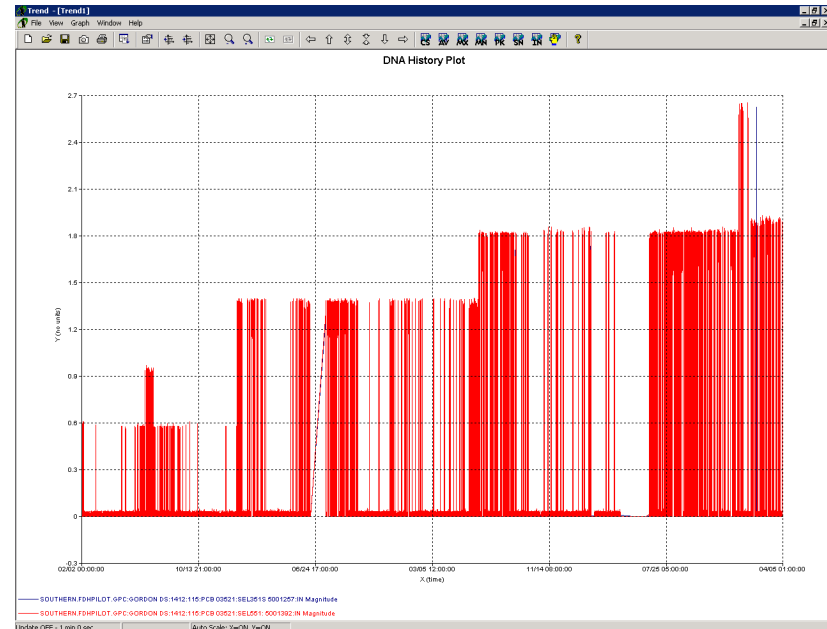
- Data
 - Lack of Data
 - Silos
 - Validity
- New Approach
- Need for Resources



The Build to Analytics



- Rise of Online Monitoring Equipment
 - Microprocess relays
 - Online transformer monitors
 - Battery monitoring
- OpEX Cost Pressure



Analytics Growth



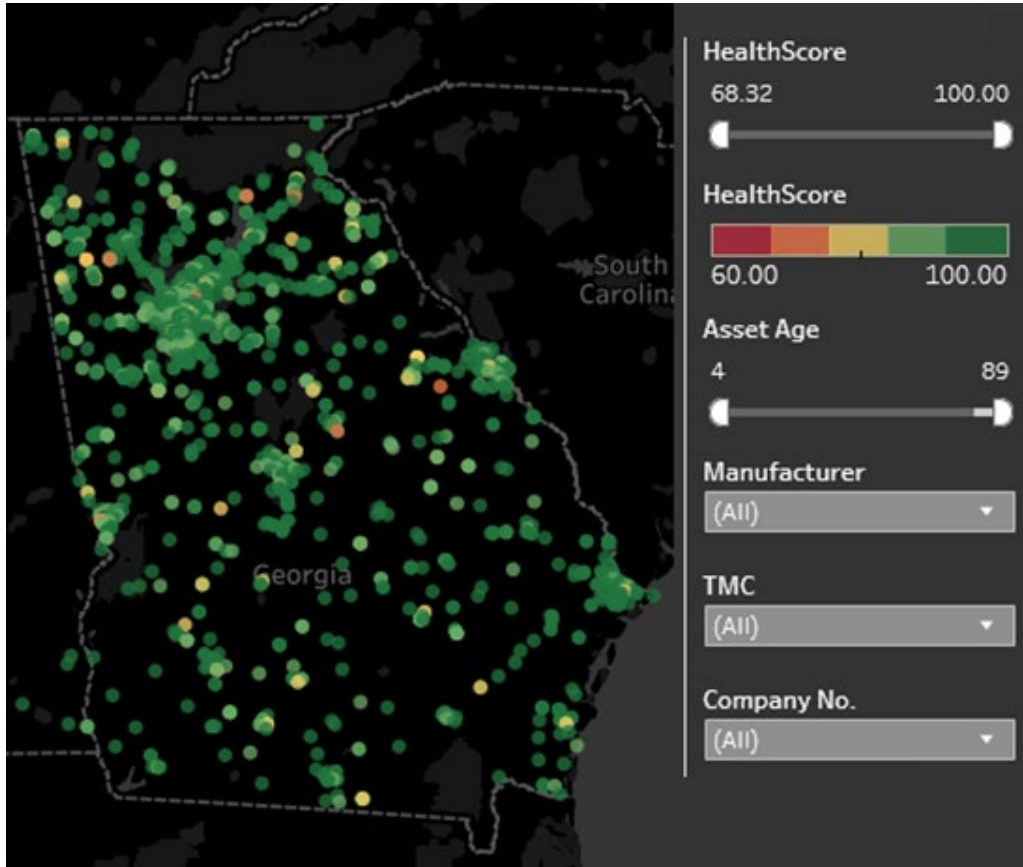
Current Applications

- Simple analytical tools
 - Data historian features
 - Excel
- APR tool

Where We are Heading

- Substation Situational Awareness

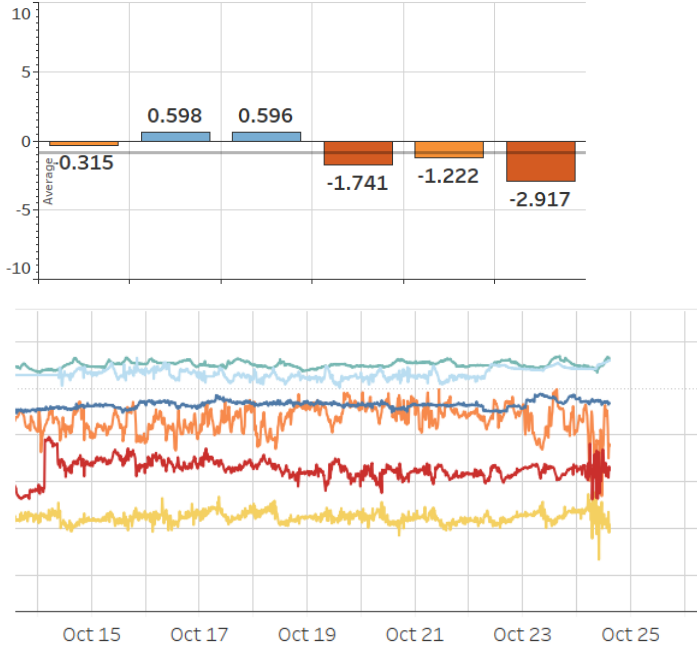
Analytics Examples





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GEOMAGNETIC DISTURBANCE INTERFACE



- Previous GMD Observations
- Input GMD Observation
- Neutral Current Report
- General Report

