

Getting Your Data Ready for OMS, Distribution Analysis and Trouble Calling

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Using Your GIS

- Outage Management
- Distribution Analysis
- Trouble Calling

Overview

- Type of data
- Outage management
- Distribution analysis
- What data needs to be modified?
- Trouble calling
- Database modifications for trouble calling
- Demonstration
- Questions

Major Types of Data

- Billing Data
- GIS Data
- Dispatch
- AMR Data

Billing Data

- Consumer Name
- Consumer Phone Number
- Consumer Address
- Usage Numbers
- Priority Service

GIS Data

- Electrical Line Data
- Consumer Data
- Connectivity of the Geometric Network
- Field Data (sizes)

Dispatch Data

- Customer Name
- Customer Phone Number
- Time Power Goes Out
- Account Number

AMR Data

- Is the meter still on line?
 - Twacs
 - Cannon
 - Turtle

Outage Management

- Electric Utilities #1 Headache
 - Unplanned stress
 - Restore power to its customers
- Recording your outages for reliability standards

Types of Outage Management

- Third Party Software
- Linked Database
- Paper Records

IEEE Standards

- SAIDI
 - Sum of all customer interruption durations/ total number of customers served
- SAIFI
 - Total number of customer interruptions/ total number of customers served
- CAIDI
 - Sum of all customer interruption durations/ total number of customer interruptions

OMS Reports

- Name
- Phone Number
- Account Number
- Time of Power Failure
- Time of Power Restored
- Duration of Outage
- Cause of Power Outage

Yearly Reliability Indices Report for 20XX

Consumers Interrupted	Number of Interruptions	Total Consumer Minutes	CAIDI	SAIDI	SAIFI	Average Time to Restore Totally	Average Time to Restore Once on Site
23041	645	913930	39.66538	112.23505	2.82955	81.32713	51.88992

Cause Code	# of Outage	Consumers Affected	Consumers Hours Out	Total Consumers on Feeder	SAIDI	SAIFI	CAIDI
Planned	1	31	14.47	414	0.03	0.07	0.47
Squirrel	1	1	1.15	414	0	0	1.15

Distribution Analysis

- Work Plans
- Long Range Plans
- Sectionalizing Studies
- Age Maps

Distribution Analysis Uses

- Creating Voltage Drop Down
- Creating Load Arrows
- Capacitor & Regulator Planning
 - Size and Location

What needs to be updated in my GIS before I can use my data in a third party software?

- Data Model
- Geometric Network

Data Model

- Correct feature class names
- Correct field names
- Correct field data types

#1 Thing That Needs to be Updated for Data Transfer

- Geometric Network
 - Everything needs to be connected
 - Flow needs to be establish
 - No loops in conductor
 - Phase needs to be correct

Other Things That Need to be Updated in the GIS

- Service Location
 - Name
 - Address
 - Account Number
 - Notification of Outage
 - Substation & Feeder Information
 - Phase Designation

Other Things That Need to be Updated in the GIS

- Transformers
 - Number of services
 - Size
 - Sub and feeder information
- Recloser, Fuses, Regulator
 - Size
 - Location
 - Phase
 - Sub & Feeder Information

Other Things That Need to be Updated in the GIS

- Switches
 - Normally Open, Closed
 - Location
 - Phase
 - Sub & Feeder Information
- Primary Overhead, Underground
 - Phase
 - Material
 - Size
 - Neutral
 - Sub & Feeder Information

Other Things That Need to be Updated in the GIS

- Substation
 - Enable
 - Source
 - Sub & Feeder Information

Trouble Calling

- Who is out of power?
- Why are they out of power?
- How do we get them back up?
- Where are our crews?

How Are You Receiving Your Information?

- Calls to Dispatch
- AMR Readings

Database Adjustments

- Service Location
 - Online (Yes/No)
 - Phone Number
 - Sub and Feeder Information
- Sectionalizer Equipment
 - Location of Equipment
 - Sub and Feeder Information

Geometric Network

- Have very few feature classes selectable
 - Service Location
 - Fuses
 - OCRs
 - Regulators
 - Substation

How Would I Show My Outage Information?

- Change consumer color
- Emphasize your sectionalizing equipment (reclosers, fuses and transformers)
- Display wire size and maybe conductor material.

Questions