

Electric Distribution Utility Network Foundation March 2023 Release Notes

General

- Phase propagation has been configured for all tiers.
- A new design for connected units has been incorporated into this model. Units in the JunctionObject table can be contained and connected to the terminals of a device. The devices terminal path is set to None so the flow goes through a terminal of the device, into the units and back out the terminal of the device. This provides the ability to operate and analyze the system by phase and maintain a single spatial feature representation of an asset.
- More Generic Asset Types added to most classes. These Asset Type share codes across Asset Groups and can be used for a simpler design.
 - Some devices were added Overhead, Underground and Station types
 - Types with Banks in their name are designed to support Units in the Junction Object Table
 - Many Unknown Asset Type were renamed to the Asset Group
 - For Low Voltage, AC and DC types were added
- Transformer Winding Asset Groups added to Devices and JunctionObjects to allow model different subnetworks for secondary and tertiary windings on a transformer.
- Electric Line Conductor Asset Groups split into Overhead, Underground and Submersible Terminal Configurations
- The Path for Three Winding was changed from Default to Primary to Both
- Added Transformer Winding
- Removed SCADA Devices Terminal Assignment on High Voltage, Medium Voltage and Low Voltage Control Unit
- Balanced and Unbalanced D_Configuration tables split up and provided in separate geodatabases.

Network Attributes

- E:Device Status was renamed to E:Field Operation
- E:Device Status Normal was renamed to E:Operating Status Normal
- E:Device Status Plan was renamed to E:Operating Status Plan
- E:Device Status Summer was renamed to E:Operating Status Summer
- E:Device Status Winter was renamed to E:Operating Status Winter
- E:Phases Current was renamed to E:Phases Propagated
- Added Is Critical
 - Assigned to iscritical field on Devices and JunctionObject
- Added E:Riser
 - Assigned to isriser field on Devices and Junctions

- Phase Domain revised and bit 8 has been removed

Network Categories

- Revised Naming convention for better sorting and organization of categories
- Added E: Bank
 - Assigned to Bank Assembly Asset Types
- Overhead Spans

Subnetwork Definitions

- Condition Barriers updated to revised Network Attribute
- E:Operating Status Normal is equal to Open,Tracable Conditional Barrier added
- Category is equal to E:Open Point Conditional Barrier added

ElectricAssemblies

- Revised Arrester Asset Type nomenclature Arrestor Bank
- Added Network Asset Type to Transformer Bank
- Removed Electric Transmission Station, Electric Subtransmission Station and Electric Distribution Station Asset Groups
- Added Medium Voltage Connector Bank, Medium Voltage Line Monitor and Relay Bank, Electric Grouping Equipment, Low Voltage Connector Bank and Low Voltage Fuse Bank

ElectricDevices

- All devices that have a container association role set to Restricted
- Category assignments updated
- Remove Low Voltage, Medium Voltage and High Voltage Arrester Asset Groups
- Transformer Winding Asset Groups added to Devices to allow model different subnetworks for secondary and tertiary windings on a transformer.
- More Generic Asset Types added to most classes. These Asset Type share codes across Asset Groups and can be used for a simpler design.
 - Some devices were added Overhead, Underground and Station types
 - Types with Banks in their name are designed to support Units in the Junction Object Table
 - Many Unknown Asset Type were renamed to the Asset Group
 - For Low Voltage, AC and DC types were added
- Line Hardware Asset Groups added to High Voltage and Medium Voltage
- Ground
 - Asset Type codes changed
- High Voltage Transformer

- Asset Types Station - HV->MV and Station Three Winding - HV->MV-LV added
- Medium Voltage Generation
 - Asset Type Interconnect MV added
- Medium Voltage Power Factor Correcting
 - Asset Type Synchronous Condenser MV added
- Medium Voltage Transformer
 - Asset Type Pad Mounted Single Phase Step Up - LV->MV and Pad Mounted Single Phase Step Up - LV<->MV added
- Low Voltage Fuse
 - Asset Type Service Fuse added

ElectricJunctions

- Revised and reorganized Line Ends and Connection Points
 - Line Ends are now features that are at the end of the line
 - The exception is a splice which can be mid-span
 - Connection Points are now features that are midspan and should not be at the end of the line
 - Subnetwork Tap category is only set on Taps and Phase Connectors

ElectricLine

- Wire added to Asset Groups Ground and Neutral
- Conductor Asset Groups split into Overhead, Underground and Submersible
- High Voltage and Medium Voltage Service Asset Group added

ElectricEdgeObjects

- Connector Asset Group added

ElectricJunctionObjects

- Recreated to align with devices with the exception that most JunctionObjects have a Single Terminal assignment