**e-terra distributionmodeler**

Is the industry’s most complete solution for distribution utilities of all sizes – from thousands to over 5 million customers.

**High performance DMS and OMS modeling solution**

*e-terra distributionmodeler* (ETDM) is an optional, stand-alone application module that can be supplied as part of the standard *e-terra distribution* Integrated Distribution Management System (IDMS) product suite. ETDM provides a complete platform for creating feeder models of the distribution system for *e-terra distribution*.

Distribution system model information is usually created and maintained in a GIS database. The GIS data describes electrical information, geographic coordinates, and physical characteristics of all of the assets in the model. ETDM can be used as either an intermediate point in the transfer of data from any GIS vendor’s database to *e-terra distribution* or it can be used in lieu of a separate GIS, as ETDM is built on the standard ESRI GIS platform as an add-in for ArcMap.

**e-terra distribution and ETDM – the Industry’s Most Complete Solution**

Regardless of whether your system model is comprised of thousands or fewer customers or more than 5 million customers, Alstom provides a complete, high-performance DMS and OMS modeling solution.
Automatic Schematic Generation

Feeder models are usually created as a geo-spatial representation in a GIS system. In ETDM, schematic views can be created automatically from the geo-spatial data. e-terra distribution allows the use of either or both views concurrently for real-time operation and control; dynamic modifications to one view (change in switch or breaker status, placement of cuts, jumpers and temporary devices, etc.) are automatically reflected in the other view.

GIS System & Schema Independence

For each GIS application (based on the version and vendor), the underlying data schema is usually different. The Alstom IDMS application also has its own CIM-like XML data model schema called the DNOM (Distribution Network Object Model). Data schema transform and exchange is required from the GIS to the DMS in order to initialize and/or update the models. If GIS data doesn’t exist, system model information can be loaded into ETDM from any other source of data enabling ETDM to be used as the single modeling tool of record.

Customer benefits:

- Common modeling tool for both DMS and OMS
- Model loading and updating in minutes
- Works with from less than 1000 to over 5 million customers
- Automatically create schematic views from the geo-spatial data
- Single User or Multiple User Access and Editing
- Data Editing
- Data Validation
- Container Support (Switch Cabinets, Vaults)
- Import from IDMS
- Export to IDMS
- Support for Model Updates (Comparison of Differences in Two Models)

Modeling Process
**Model Editing and Validation**

As part of the modeling development and change process, data must be checked for completeness and consistency. Rules and checks are performed in ETDM and in the e-terra distribution model validator that ensure that model data is consistent, correct and power-flow capable prior to going on-line.

**Templates**

ETDM provides an editor that enables you to easily create containers (e.g., switch cabinets, vaults, and transformer banks), import existing container templates and export container template definitions.

**Model Loading and Updates – Performance**

To be useful, models must load quickly and enable seamless updating with little or no impact on the system user. e-terra distribution is in production in many distribution companies throughout the world providing high-performance modeling and real-time model updates. As a file-based environment, loading the entire model is usually accomplished in a few minutes or less. While most utility companies update models on a daily basis, some companies push new models into e-terra distribution as fast as changes are made in the GIS – in one case over 25,000 updates were pushed into e-terra distribution in a single year.
System Requirements

ETDM is delivered as an ArcGIS for Desktop extension and its installation is supported by the ArcGIS Extension Installation Utility.

ETDM is supported on the following operating system platforms. Server components are only required for multiple user implementations.

- Client Component – Windows 7 [64 bit]
- Server Component – Windows Server 2012 Release 2 [64 bit]
- Esri ArcGIS for Desktop and Schematics for Desktop (single user versions)
- Esri ArcGIS for Server Enterprise Basic (multiple users)
- Microsoft SQL Server 2012 (multiple users)

For a product demonstration or to learn more about this product, please contact our team.