CYME
Power Engineering Software and Solutions

Distribution System Analysis

Reliable analytic and planning tools to improve electrical network performance

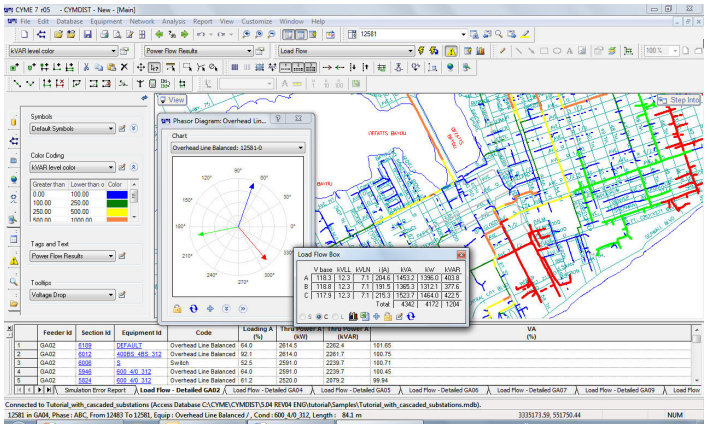
The Distribution System Analysis of the CYME Power Engineering Software is designed for planning studies and for the analysis of the entire distribution network.

The modeling capabilities of CYME includes the detailed representation of medium and low-voltage distribution networks, and secondary grids. From planning to contingency scenarios to optimization, the CYME software is the perfect tool to address any distribution system analysis need.

The CYME power engineering software features a powerful graphical user interface that is fully customizable to provide the one-line diagram representation, results and reports in a level of detail needed by each user. In addition, innovative engineering technologies and industry standards are at the core of the CYME algorithms. With its extensive built-in equipment libraries and advanced analyses, the CYME software can help you create the most accurate network representation to yield the accurate results that are needed.

Major features

- Customizable interface and reports
- Load flow
- Motor starting
- Load allocation
- Fault analysis:
  - Short-circuit
  - Fault locator
  - Series and simultaneous fault
  - Voltage sag
- Load balancing
- Optimal capacitor placement and sizing



Powering Business Worldwide

Distribution System Analysis

Reliable analytic and planning tools to improve electrical network performance.

Power Flow Analysis

Main analysis tool for the design, planning and operation of any electrical power system.

Fault Analyses

Tools to assess the effects of different types of short-circuits, evaluates fault contributions from machines and helps the verification of equipment rating.

Enhanced Substation/Sub-Network

To model and analyze all the major components of distribution substations and sub-networks such as industrial facilities, switchgear and vaults.

Secondary Grid Network Analysis

Detailed modeling and analysis of heavily meshed secondary grids, which include complete vaults with their transformers, protective devices such as network protectors, secondary lines and cables.

Low Voltage Distribution Network

Detailed modeling of low-voltage distribution network with single-phase center tap transformers and service drop cables. It also allows comprehensive analysis to calculate technical losses and identify overloaded equipment.

Volt/VAR Optimization

To achieve peak shaving, reduce system losses and improve voltage profile to optimize network efficiency.

Optimal Voltage Regulator Placement

Network optimization through voltage regulation by finding the optimal location and tap settings for voltage regulators.

Optimal Recloser Placement

To achieve a better level of reliability by placing reclosers at optimal locations.

Network Configuration Optimization

To reconfigure radial networks to an optimal topology through switching configurations.

Single Contingency Assessment and Restoration

To study what-if situations of a single outage on a radial system to establish an optimal switching plan.

Reliability Assessment

To assess the historic and predictive performance of network assets and evaluate improvements due to different initiatives and configurations.

Protective Device Analysis

Wide range of tools and analyses to assist in the design and validation scheme of power networks.

Long-Term Dynamics

Time-series simulation to study the impact of insolation variations, wind fluctuations and load variations on network controls.

Steady-State Analysis with Load Profiles

To perform time series load flow analysis based on a combination of historical consumption patterns and real-time monitoring based on a combination of AMR data and historical consumption patterns.

Load Flow Contingency (N-p)

Allows the study of what-if scenarios and N-p contingencies to establish optimal network operation.

Advanced Project Manager

To manage time-based projects and assess multiple scenarios in a flexible framework.

Automated Network Forecast Analysis

To manage and analyze time-referenced projects in batch mode.

Arc Flash Hazards Analysis

To assess the safety risk of the network to help ensure a safer work environment.

Harmonic Analysis

To evaluate the impact of non-linear loads on the network to help engineers find mitigation methods to harmonics issues in the system.

Geographic Overlay

To display raster or vector map images (geographical land-base) as layers directly underneath the electrical model for a better visualization of the electrical network.

Online Maps Service

To display map images from online map providers as background of the distribution network and locate specific equipment and devices using street addresses and GPS coordinates.

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