CYME Basic Web Training

November 14th-18th, 2022

Overview of Training

This training course reviews the fundamental use of the software for distribution analysis.

This training is designed to help you use the software more effectively. Users learn to collect and assemble network data to build the distribution system model. Furthermore, the course explores the full range of functionality that is offered in **CYME International T&D Inc** software as well as its output capabilities. Finally, users will gain the skills necessary to analyze and interpret the simulation results.

CYME INTERNATIONAL T&D INC personnel who are thoroughly familiar with the software products and techniques applied instruct the course. Class size is limited so that each user may receive personal attention.

Session 1 – Basic Operation

Monday November 14ᵗʰ 9h00am-12h00pm EST

1. Startup and Installation

2. Interface and Preferences

3. Databases
   a. Setting up the Database
       i. Creation
       ii. Selection of Databases, Profiles
   b. Import/Export

4. One-line Diagram Navigation
   a. Loading Feeders
   b. Navigating on the One-Line Diagram

Session 2 – Load Flow and Saving

Tuesday November 15ᵗʰ 9h00am-12h00pm EST

1. Load Flow
   a. Analysis
   b. Analysis Layers
   c. Result Box
   d. Reports
       i. Use in Relation to the Graphical Display
       ii. Customizing
       iii. Exporting

2. Results Customization

3. Saving Options
   a. Study vs. the Database
   b. Self-Contained Study vs. the Database
   c. Network Updates

Session 3 – Modeling and Display

Wednesday November 16th 9h00am-12h00pm EST

1. **Load Modeling**
   a. Load Model
   b. Load Allocation

2. **Equipment Modeling**
   a. Conductors, Cables, Overhead Lines and Construction Details
   b. Source Equivalents
   c. Generators and Motors
   d. Protective Devices

3. **Network Modeling**
   a. Network Creation
      i. Feeders
      ii. Secondary Networks
      iii. Substations
      iv. Low Voltage Secondary Distribution
   b. Section Structure
   c. Editing a Network
   d. What to Include or Exclude from the Model
   e. Common Errors in Data Models

4. **Graphical Display Options**
   a. Show Options
   b. Symbols and Colors
   c. Default Layers

5. **Geographic Overlay and Online Maps Service**

Session 4 – Analyses

Thursday November 17th 9h00am-12h00pm EST

    1.   Load Growth

    2.   Motor Start
   a. Locked Rotor Analysis
   b. Running and view the results
   c. Maximum Start Size

    3.   Overload & Voltage Mitigation
   a. Load transfer
   b. Load balancing
   c. Shunt capacitor installation
   d. Line conductor replacement
   e. Rephasing
   f. Voltage regulators

    4.   Fault Analyses
   a. Short Circuit Analysis
   b. Fault Flow Analysis
   c. Fault Locator
   d. ANSI and IEC Short Circuit

Session 5 – Protection Analysis

Friday November 18th 9h00am-12h00pm EST

    1.   Equipment database and device settings

    2.   Operations on the One-Line Diagram
   a. Plotting the Curves
   b. Send branch coordination

    3.   Performing Device Coordination
   a. Visual Check
   b. Margin Calculation
   c. coordination Analysis
   d. Reach and Load Analysis

    4.   Sequence of Operations