

# **CYME Basic Web Training**

November 13th-17th, 2023

#### **Further Information**

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# **Overview of Training**

This training course reviews the fundamental use of the software CYME 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 13th 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 14th 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 15th 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 16th 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 17th 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