

COURSE DESCRIPTION

EcoStruxure Power Monitoring Expert (PME) 8.x Fundamentals

Overview

This 4-day course focuses on how to use a StruxureWare Power Monitoring Expert 8.x (PME) system. Students will be exposed to power monitoring fundamentals in order to set a baseline for class. Students will practice using PowerLogic and ION meter front panels to verify the configuration of devices that already exist in the system. In a hands-on lab environment, students will use the software interfaces (Vista, Management Console and others) to add meters and monitor on their electrical system. Lab activities include viewing real-time, historical and alarm/events. Activities around the new web applications offered in PME are featured as well. We will teach students how to quickly extract and analyze data from their system using tools like the Active Alarm viewer (AAV), Tables, Trends, Dashboards, Diagrams and Web Reporter. This course provides a basic overview of the capabilities of a PME system and the practical skills to begin using it more efficiently.

Duration

4 Days (M-W 8am-4pm / Th 8am-1:30pm). *Please book departing flights for 4pm or later on the last day of class.*

Who should attend

Anyone who will be/ is using PME or migrating from our SMS platform

Prerequisites

- Basic computer skills and experience with Microsoft Windows
- Basic metering terminology

Students will be able to

- Understand basic power fundamentals and terminology
- Verify the configuration of meters in an PME system
- Conduct real-time monitoring in Vista
- Analyze historical loads and consumption using Vista and Diagrams
- Manage events and alarms in new Active Alarm Viewer web tool
- Analyze power quality and waveform data in Vista
- Create, manage, and automate reports with Web Reporter
- Create and manage tables in Tables web tool
- Create and manage Trends in Trends web tool
- Create and manage Dashboard web tool

Agenda

Day 1

Course Introduction

- Student and Instructor introductions and overview of course logistics
- Overview of course topics and agenda

Review Power Fundamentals

- Understand the power fundamentals topics and the variety of quantities that can be measured

Understand the key features of a PME system

- Understand all component of PME system and what they are used for
- Review Dashboards Tool
- Review Web Reporter Tool
- Review Alarm Viewer Tool
- Review Real Time Tables Tool

Intro to ION/Powerlogic Devices

- Overview of ION hardware
- Overview of Powerlogic hardware
- Overview of hardware placement in systems
- Overview of hardware clocks, synchronization and settings

Familiarize and Use meter front panels

- Navigate the display screens to view meter information
- Access the front panel setup menus to configure meter settings

Introduction to PME

- Understand the products and tools within PME and how they can be used

Day 2

Introduction to the web client in PME

- Understand the navigation flow
- Utilize the SETTINGS selection to personalize the web client

Introduction of Dashboard web tool

- Review of the Dashboard Tool
- Understand navigation of Dashboard tool
- Creation of gadgets within Dashboard tool
- Editing of created Dashboards

Create and manage reports using Web Reporter Tool

- Describe the types of reports available with Web Reporter
- Create a "Trend" report for voltage
- Configure a "Load Profile" report
- Generate an "Energy Cost" report
- Generate a "Power Quality" report
- Review and manage automated report distribution via email, file share or printer

Create and manage Trends using the Web tool

- Review existing trends, and understand their capabilities
- Modify and manage existing trends
- Create new trends using upper and lower thresholds with left/right axis
- Create single trends with 2 axis

Manage events and alarms in the Active Alarm Viewer

- Understand the features and benefits of the Alarm Configuration tool
- Understand what ION Setup is and what role it plays in the alarm configuration topic
- Understand the different types of alarms
- Manage alarms within the active alarm viewer

Evaluate the PME system within VISTA and Diagrams Tools

- Review history of meter events
- Locate real-time values in default meter diagrams
- Use control actions in default meter diagrams to reset and enable system functions

Analyze historical loads and consumption using Vista and Diagrams

- Determine what measurements are logged in specific PowerLogic meters
- Compare the daily, weekly and monthly loads across multiple metering points
- Retrieve the peak demand for any time interval
- Determine monthly energy consumption

Analyze power quality and waveform data using Vista and Diagrams

- Analyze the waveshape and harmonic composition of specific loads
- Verify PQ meters are setup correctly for voltage disturbance monitoring
- Interpret PQ events and plot voltage disturbance events on a CBEMA - ITIC curve
- Analyze the waveforms of captured voltage disturbance events

Create and manage Tables in the Web tool

- View a pre-configured Table
- Use the filtering capabilities to filter data within the Table

- Save a custom Table
- Export a Table to an Excel spreadsheet

Day 3

Intro to PME client types and communication design

- Overview of the different client types of PME
- Overview of Communication designs and system integration

Modify and add meters to PME through Management Console

- Maintaining your system using Mgmt Console
- Determine communication details for newly installed meter
- Create new meters in PME system
- Verify communications of newly installed meters by network generation

Modify and Create Diagrams using the Vista tool

- Understand objects in the Vista Toolbar
- Create basic screens with values, statuses, and other Toolbar objects
- Create 3-page user diagrams with objects and navigation

Day 4

Introduction and Overview of Alarm Optimization

- Understand Alarming problems in control systems
- Identify steps to resolve and maintain alarm systems
- Create a plan to correct/improve alarm functionality within your system

Course Review

- Practical exercise to assess what students have learned throughout the week
- Introduce students to next steps to managing their system and their knowledge