Automation College

Honeywell

Experion PKS: Fundamentals - Configuration, Graphics Building and Control Strategy Implementation

Course Overview

Course number: EXP-50
Course length: 9.5 days

This intensive course covers all basic but essential aspects for the engineering and configuration of an Experion® Process Knowledge System (PKS):

- Station, Server, Fault Tolerant Ethernet Configuration
- Engineering Tools (Configuration Studio)
- Graphics Design (HMIWeb Display Builder)
- C200 and C300 Configuration (Control Builder)

The first section of this course presents the basic concepts and strategies needed to develop guidelines for effective and consistent planning of the system. In addition, there is an extensive hands-on workshop where participants build and configure the Server. Those labs alternate with the related theoretical parts.

The second section includes extensive hands-on lab exercises where participants build and configure a Control Execution Environment applicable to the C200 and C300. Lab exercises include troubleshooting typical errors in configuration.

The third section presents the basic concepts and strategies needed to develop guidelines for effective and consistent Display Design. Furthermore, there is also an extensive hands-on workshop where participants develop Experion PKS Operating Displays using the HMIWeb Display Builder. Lab exercises also include practice in building components for shape libraries.

Course Benefits

- Conceptual understanding of the Server to enable optimum utilization. Design and configure the Server for optimum data collection
- Conceptual understanding of Graphic Building guidelines to enable efficient Display Design. Design and construct Displays to create an effective interface for Plant Operations
- Conceptual understanding of the C200 and C300 controllers to enable optimum utilization. Design and configure the C200 and C300 controllers for optimum control

Course Delivery Options

- In-Center Instructor-Led Training
- On-Site Instructor-Led Training

Who Should Take This Course?

Experion System or Application Engineers

- Responsible for configuring the Server, adding to or changing the Server configuration
- Responsible for designing and creating Displays
- Responsible for configuring the controller, adding to or changing the controller configuration

Prerequisite/Skill Requirements

Prerequisite Course(s)

- None

Required Skills and/or Experience

- Working knowledge of Windows Server 2016 R2 (64 Bit) and/or Windows 10 (64 Bit)

Desirable Skills and/or Experience

- Plant, process or controls knowledge

Course Topics

Part 1 - System Configuration

- Recognize the role of the major hardware and software components and learn how data flows through the Experion PKS Server
- Overview of Dynamic Scanning
- Plan the Experion PKS Server and the Fault Tolerant Ethernet
- Configure Flex, Console, and Console Extensions stations and report printers
- Use the Configuration Studio for Server configuration.
- Describe Quick builder
- Configure integration functionality
- Configure the Experion PKS Server for Process Control functionality
- Describe different Documentation methods

Part 2 - Control Strategy Implementation

- Build control strategies in the Control Execution Environment that can be applied to the C200E (Chassis and PMIO), C300 (PMIO and Series C)

Course Topics continued

- Plan the C200, C200E and C300 controllers including the selection of appropriate I/O, redundancy and communications
- C200E Series A and C300 Series C IO configuration
- C200E and C300 Control Module configuration. This includes configuring Data Acquisition, Regulatory Control and Logic
- Perform Checkpoint Save and Restore
- C200E and C300 Sequential Control Module configuration
- The use of PMIO in C200E and C300 control strategies
- The use of productivity tools, Engineering Data Builder, Bulk Build, and Bulk Edit

Part 3 - Graphics Building

Build Displays using HMIWeb Display Builder:

- Use tools and navigation options
- Use Tabbed display option
- Enable callout Options versus Messages
- Create new operating displays
- Create display elements
- Use the Shape Library
- Create templates, dynamic shape files, shape sequences, trends and popups
- Use Display validation option
- Copy/Paste trend parameters
- Allow fast update option for data bound objects
- Insert shapes into operating displays
- Specify standard faceplate behavior
- Create custom faceplates and configure faceplate behaviors
- Use the Script Editor
- Attach scripts to objects
- Add Internet links and other navigation techniques
- Use Cascade Style Sheets
- Use Shortcut Menus
- Configure security level changes from HMIWeb Displays
- Build Safeview configurations to manage displays
- Use Shape file clean utility.

Additional Training

To increase your knowledge and skills, there are additional courses available from Automation College.

For more information and registration, visit www.honeywellprocess.com/en-US/training.