EXPERION PKS: FUNDAMENTALS – UOC CONTROLLER IMPLEMENTATION

COURSE OVERVIEW

Course Number: EXP-2001UOC
Course Duration: 4.5 days

Prerequisite Course (s): None

This course provides participants the ability to perform the following Experion PKS System tasks:

- Build control strategies in the Control Execution Environment that can be applied to the UOC/vUOC (CE900 IO, Ethernet IP IO, Profinet IO and CNet IO)
- Plan the UOC/vUOC controllers including the selection of appropriate I/O, Redundancy, Topology, and communications
- UOC/vUOC IO Reference configuration
- UOC/vUOC Control Module configuration. This includes configuring Data Acquisition, Regulatory Control and Logic
- Perform Checkpoint Save and Restore
- UOC/vUOC Sequential Control Module configuration. This includes the use of Steps and Transitions to implement process sequences
- The use of productivity tools like Engineering Data Builder

The course presents the basic concepts and strategies needed to develop guidelines for effective and consistent planning of the system. It includes extensive hands-on lab exercises where participants will build and configure a Control Execution Environment applicable to the UOC/vUOC.

COURSE DELIVERY OPTIONS

- Asynchronous Training (AT)
  - ➢ Self-paced with 10 days to complete

COURSE OBJECTIVES

- Recognize the role of the major hardware and software components and learn how data flows through the UOC/ vUOC controllers
- Plan the UOC/vUOC controllers
- Select appropriate components of the UOC/vUOC controllers including processors, I/O, Topology, and communications
- Configure the UOC/vUOC controllers including:
  - o Hardware
  - o Converting a SPARE channel in an IOM to corresponding channel type and Configure IO references
  - o Control Modules, which incorporate Data Acquisition using IO's Reference, Regulatory Control and Device Control Logic
  - o Sequential Control Modules which are used to control process sequences, such as startup, shut down and batch operations
  - o Checkpoint Save and Restore
  - o UOC/vUOC performance calculation
- Use Productivity Tools
  - o Engineering Data Builder
- Perform Database Search operations
  - o Parameter search
  - o Where Used search
  - o Dangling / Missing Connections
  - o Online Data Search

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