

# Experion PKS: Fundamentals - Control Execution Environment Controller Implementation



## Course Overview

**Course number:** EXP-2001

**Course length:** 4.5 days

### Need to plan and implement your Experion® Process Knowledge System (PKS) C200, C200E or C300 Controller?

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 C200E (Chassis and PMIO), C300 (PMIO and Series C)
- 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
- C300 Series C Reference 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. This includes the use of Steps and Transitions to implement process sequences
- The use of PMIO in C200E and C300 control strategies
- The use of productivity tools, Engineering Data Builder, Bulk Build, and Bulk Edit

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 C200, C200E and C300.

## Course Benefits

### Efficient planning and implementation of your Experion PKS C200, C200E and C300 Controller

- Conceptual understanding of the C200, C200E and C300 controllers to enable optimum utilization
- Design and configure the C200, C200E 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 PKS System Implementers

Experion System Engineering and configuration tasks can impact the following job roles. Other job roles performing these tasks could also participate.

- **Experion System or Application Engineer** responsible for configuring the controller, adding to or changing the controller configuration

## Prerequisite/Skill Requirements

### Prerequisite Course (s)

- None

### Required Skills and/or Experience

- Some would benefit by taking the EXP-02
- Ability to navigate the Experion Station
- Ability to call up point details, group details, and custom displays
- Working knowledge of Windows Server 2016 Standard (64 Bit) and/or Windows 10 (64 Bit)

### Desirable Skills and/or Experience

- Plant, process, and controls knowledge
- Experience configuring DCS Controller

## Course Topics

### Note:

- The Unit Operations Controller (UOC) and/or Virtual UOC will be utilized for Experion PKS R505 courses

### You will learn how to...

- Recognize the role of the major hardware and software components and learn how data flows through the C200, C200E and C300 controllers
- Plan the C200, C200E and C300 controllers
- Select appropriate components of the C200, C200E and C300 controllers including processors, I/O and communications
- Configure the C200E and C300 controllers including:
  - Hardware
  - Converting a SPARE channel in an IOM to corresponding channel type and Configure Series C IO references
  - Control Modules, which incorporate Data Acquisition using Reference IO's, Regulatory Control and Device Control Logic
  - Sequential Control Modules which are used to control process sequences, such as start up, shut down and batch operations
  - Checkpoint Save and Restore
- Configure additional I/O functionality for Honeywell Process Manager I/O applicable to both the C200E and C300 controllers
- Use Productivity Tools
  - Bulk Build
  - Bulk Edit
  - Engineering Data Builder
- Perform Database Search operations
  - Parameter search
  - Where Used search
  - Dangling / Missing Connections
  - Online Data Search

## 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](http://www.honeywellprocess.com/en-US/training).**