

# Experion<sup>®</sup> Process Knowledge System (PKS) SYSTEM LEVEL TROUBLESHOOTING AND MAINTENANCE



## Course Overview

**Course number:** EXP25

**Course length:** 9.5 days

### Need to troubleshoot an Experion<sup>®</sup> PKS system?

This course provides participants with the ability to troubleshoot both the hardware and software of the Experion<sup>®</sup> PKS system.

- Hands-on lab exercises comprise 90% of the course.
- Participants will be required to verify reported problems, create a hypothesis regarding the likely problem area, and apply a planned troubleshooting procedure to isolate the problem boundary in twenty one scenarios.
- Locate the issue causing the problem, propose a solution and identify the implications to the control system and process of implementing the solution.
- Participants will learn safer and more effective troubleshooting procedures along with improved navigation skills of system displays and programs.
- Each student will study in Team System Environment comprising three students per team.
- Each Team System Environment includes a Domain Controller, redundant ESVT nodes, ACE-T node, EST node, OPC Server, redundant C200's with PM I/O, HC900 SCADA controller and redundant C300 controllers with C300 I/O.

## Course Benefits

### Builds confidence in maintaining your System

- Information on common problem causes and resolutions.
- Locate, analyze and rectify faults associated with the Domain Controller, Servers, and stations. FTE networks and Switches; C200/C300 controllers with PCDI and SCADA points; TPN/TPS and OPC points. Also PCDI to Safety Manager.
- Required to identify faults in other parts of the Experion<sup>®</sup> PKS.

## Course Delivery Options

- In-Center Instructor-Led Training

## Who Should Take This Course?

**Experion<sup>®</sup> PKS Plant Engineers or Advanced System Technicians:**

- Responsible for troubleshooting and correcting problems in the entire system from the Domain Controller, Servers, and stations to the primary controllers.

## Prerequisite/Skill Requirements

### Prerequisite Course(s)

- Working knowledge of Windows 2003 Server or XP
- Completion of EXP02R30x and EXP2001R30x **Or** (formerly EXP20)
- Completion of EXP02R30x and EXP05R30x **Or**
- Completion of EXP23R30x

Related experience may not be an acceptable substitute

### Required Skills and/or Experience

- None

### Desirable Skills

- Plant, process, and controls knowledge
- Experience configuring DCS Controllers
- Working knowledge of your process.
- Working experience with field instruments, electrical components, valves, transmitters, and basic instrumentation.
- Experience with installation and operation of an Experion<sup>®</sup> PKS system
- Experience with installation and operation of an TDC 3000/ TPS system

## Course Topics

### Participants will be exposed to ....

- Use Experion<sup>®</sup> PKS operating, configuration and troubleshooting displays to identify and rectify network faults in FTE, Server, Station, and Security connections.
- Troubleshooting with system displays and programs to locate and rectify faults in a C200/C300 controller, with PMIO or Chassis IO.

**Course Topics continued**

- Troubleshooting controller to field instrument type problems
- C200 troubleshooting – error indications Local LED's and Station Displays
- C300 troubleshooting – error indications Local LED's and Station Displays
- PM I/O troubleshooting (either C200 and C300 connected) - error indications Local LED's and Station Displays
- SCADA problems
- OPC problems
- TPS/LCN – Experion® communication and connection problems
- Experion® System Logs and Analysis Tools
- Server and Security issues
- Station and Server redundancy issues
- EMDB and ERDB corruption issues
- FTE and Ethernet Switches
- Network Tree and Analysis Tools
- Experion Backup and Restore
- TPN Backup and Restore
- Safety Manager – C300 PCDI Connections

**Additional Training**

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

**For more information and registration, visit**  
[www.automationcollege.com](http://www.automationcollege.com).