Course Overview

Course number: EXP-25-AT
Course length: 9.5 days (self-paced with 10 days to complete)

Need to troubleshoot an Experion® PKS system?
This course provides participants with the ability to troubleshoot both the hardware and software of the Experion 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/ML 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® PKS

Course Delivery Options

- Asynchronous Training (AT)
- IMPORTANT – Prior to registration for the e-learning courses (VILT, VT, and AT), you must perform the User Readiness Test. Go to Virtual Training Access Requirements to perform this test

Who Should Take This Course?
Experion 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)
- EXP-02 and EXP-2001 Or
- EXP-02 and (EXP-05 or EXP-05C3 or EXP-05C3S or EXP-05C2) Or
- EXP-23

Note: Related experience may not be an acceptable substitute

Required Skills and/or Experience
- R430 / R431 - Working knowledge of Windows Server 2008 R2 and/or Windows 7 (64 bit)

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 PKS system
- Experience with installation and operation of an TDC 3000/ TPS system
Course Topics

You will learn in R430/R431 how to...

- Use Experion 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
- 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
- Dynamic Alarm Suppression problem
- System Wide Events problem(R430)
- 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
- Configuration Studio, Network Tree
- Experion Support and Maintenance, Using Diagnostic Studio
- Experion Backup and Restore
- TPN Backup and Restore
- C300 PCDI Connections to HC900/ML and Safety Manager

Additional Training

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