# **Process Control**

PlantPAx System Design and Configuration

# **Course Number**

PRS019

## **Course Purpose**

This course introduces the core components of a PlantPAx distributed control system, including system architecture, configuration, alarms, and security.

During this course, you will focus on designing and configuring a PlantPAx system and learn how to:

- Architect a PlantPAx process automation system
- Create process control applications with the PlantPAx library of add-on instructions, faceplates, and process strategies
- Create interactive displays for operator workstations, including alarms
- Secure a PlantPAx system

### **COURSE AGENDA**

Rockwell Automation

#### DAY 1

- Getting Started with a PlantPAx<sup>®</sup> Distributed Control System
- Architecting a PlantPAx Distributed Control System

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• Verifying a PlantPAx Distributed Control System Architecture Using the PlantPAx System Estimator

### **DAY 2**

- Integrated Practice: Designing a PlantPAx Distributed Control System
- Configuring a PlantPAx Distributed Control System Using Studio 5000 Architect™ Software
- Configuring a Studio 5000 Logix Designer® Project for a PlantPAx Application
- Developing PlantPAx Application Code Using the Rockwell Automation Library of Process Objects

### DAY 3

- Developing a PlantPAx HMI Application Using the Rockwell Automation Library of Process Objects
- Integrated Practice: Configuring Application Code and HMI Applications in a PlantPAx Distributed Control System
- Configuring a Sequencer in a PlantPAx Application

### DAY 4

- Configuring Alarms for a PlantPAx Application
- Configuring Basic FactoryTalk® Security for Use in a PlantPAx Distributed Control System
- Configuring Software Product Security in a PlantPAx Distributed Control System

### DAY 5

• Integrated Practice: Configuring Alarms and Security in a PlantPAx Application

#### WHO SHOULD ATTEND

System Integrators who have a background in automated process control and Rockwell Automation products should attend this course. This course covers concepts related to PlantPAx components. For details on the topics covered, please see the Course Agenda.

#### **PREREQUISITES**

To successfully complete this course, the following prerequisites are required:

- PlantPAx System Configuration Fundamentals (Course Number PRS013) or
- Practical work experience with process applications, ControlLogix<sup>®</sup> systems and programming, and FactoryTalk® View SE applications

#### **STUDENT MATERIALS**

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.
- The following PlantPAx Documentation:
  - PlantPAx Process Automation System Selection Guide (PROCES-SG001)
  - PlantPAx Process Automation System Reference Manual (PROCES-RM001)
  - Rockwell Automation Library of Process Objects Reference Manual (PROCES-RM002)
  - PlantPAx Distributed Control System Application Configuration User Manual (PROCES-UM003)
  - PlantPAx Distributed Control System Infrastructure Configuration User Manual (PROCES-UM001)

#### HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises.

To complete the exercises, you will use a process workstation (Catalog Number ABT-TDHART) and a VMware image designed to imitate a real production facility. You will practice designing and configuring the system.

You will also have the opportunity to combine and practice groups of key skills by completing an integrated practice at the end of the course.

#### NEXT LEARNING LEVEL

Once you have an understanding of a PlantPAx process system and the skills covered in this course, you may want to attend specific training such as:

- FactoryTalk Historian Site Edition Configuration and Data Collection (Course Number RS-FTHSEC)
- FactoryTalk AssetCentre System Design and Implementation (Course Number FTAC)
- FactoryTalk VantagePoint Configuration and Reporting (Course Number FTVP)

#### **COURSE LENGTH**

This is a four-an-a-half day course.

#### **IACET CEUS**

Rockwell Automation is authorized by IACET to offer 3.2 CEUs for this program.



### **TO REGISTER**

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley® Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at http://www.rockwellautomation.com/training

Rockwell Automation is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU. Click here to view the Rockwell Automation Certificate of Accreditation.

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444 EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640 ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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