

Automation - SIMATIC HMI with TIA Portal

TIA Portal WinCC Professional Configuration (SCADA)

General Information

Course Code: SCT-PTWCSP1A

Length: 4½ Days

Audience

This course is for PLC users with engineering or maintenance experience who will be designing and configuring automation systems and their application programs using Siemens TIA Portal Windows Control Center (WinCC) Professional SCADA (Supervisory Control and Data Acquisition). NOTE: This TIA Portal course is for configuring WinCC SCADA applications. For Panels and/or Machine mounted HMI applications see Course TIA Portal WinCC Advanced – Code: SCT-PTWCMP1A.

Prerequisites

- Basic knowledge of automation technology.

Profile

2.9 CEUs (Continuing Education Credits)

Using a model application, this course provides a system overview of WinCC Professional with emphasis on its capabilities and special features. Detailed configuration procedures will be studied in an order compatible with the typical development of an industrial application. Participants will learn the correct development process beginning with creating a project and concluding with reporting and printing. Examples of programs written to take advantage of WinCC open architecture are discussed. Throughout this course lecture materials are complimented with hands-on exercises which build a working WinCC Professional application.

Objectives

Upon completion of this course, the student shall be able to:

- Create and manage WinCC Projects.
- Integrate components between WinCC and TIA Portal.
- Create WinCC tags in STEP 7 symbol table.
- Establish communications with the PLC.
- Design a complex graphic.
- Configure internal and external tags.
- Define & Administer User Security.
- Set and test the WinCC Alarms and Messages.
- Configure, archive and display Trends & Tables.
- Configure, preview and print Reports.

Topics

1. System overview TIA Portal, SIMATIC WinCC (SCADA)
2. Creating a SIMATIC WinCC Professional project
3. Configuring the connection to the SIMATIC S7 automation system
4. Structuring the operator interface .
5. Fundamentals of creating graphics displays for human machine interfaces .
6. Navigating through the plant displays
7. User administration
8. Message representation, message logging, message configuring
9. Variable logging, trend configuring, and trend plotting
10. Message representation including logging of data in the database
11. Recipes
12. Re-usable faceplates and centralized modification of graphics blocks
13. Global Scripting & Background processing