SIEMENS

On line-Training PROFINET con controllori SIMATIC in TIA Portal (IK-PNCOM)

Short Description

The increasing digitalization of companies and the resulting networking in almost all areas is opening up tremendous economic potential. For that matter, PROFINET and Industrial Ethernet are set standards in automation technology. This course shows you the possibilities PROFINET and Industrial Ethernet offer and enables you to implement efficient communication with SIMATIC controllers in TIA Portal. In this course you will get to know the real-time-capable standard PROFINET as well as IP based standards such as TCP/IP and OPC UA and how to use them in your automation. You will learn how to parameterize, commission and troubleshoot a PROFINET network quickly and effectively. You will also find out how to establish communication between controllers and beyond the controller and field levels.

Objectives

After attending the course, you can:
- Correctly organize a PROFINET network and solve its problems
- Configure and program devices via PROFINET IO
- Carry out the commissioning of a redundant network
- Use the web services integrated in the PROFINET devices
- Manage devices via Share Device, I-Device and PN/PN coupler
- Programming acyclic communication between devices

Target Group

Engineering personnel
Programmers
Commissioning engineers
Service personnel

Content

- Basics of Industrial Ethernet
- Basics of PROFINET IO (RT & IRT)
- Configuring PROFINET IO
- Media redundancy
- Device and network diagnostics
- Introduction to the integrated web servers of SIMATIC and SCALANCE devices
- Utilizing and configuring Shared Device
- Parameterizing and application of I device
- Gateways and communication via PN/PN couplers
- Communication via S7 connections
- Communication via Open User Communication (TCP, ISO-on-TCP, UDP)
- Basics of OPC UA and SIMATIC S7-1500 as OPC UA server

The theoretical knowledge will be deepened with numerous practical exercises on a TIA system model. This consists of several SIMATIC S7-1500 automation systems, a SIMATIC ET 200SP distributed I/O, and SCALANCE X-200 switches.

Prerequisites

S71500S1 or S71500P1 courses or equivalent basic knowledge of automation systems.

Note

In this course, the SIMATIC S7-1500 automation system and the SIMATIC STEP 7 (TIA Portal) software are used. PRONET course is available for the SIMATIC S7-300 automation system and the SIMATIC STEP 7 V5.x software.
You can prepare for this activity through the **SIE-learning 4.0** SIE-ETHBA and SIE-PNBA preparatory courses.
At the end of the course, you can learn more about the topics covered through our **SIE-learning 4.0** : SIE-PNADV, SIE-PNDIAG and SIE-OPCUA.

Type

Online-Training

Duration

18 hours

Language

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