SIEMENS

OPC UA-Systemkurs (IK-OPCSYS)

Short Description

This training offers you a detailed introdocution into the basic concepts of the OPC UA system and its interfaces. You will learn the terminology behind the abstract model and test and deepen your understanding of it with several OPC UA capable components. You will learn about the most important OPC UA servers and clients in the SIMATIC product portfolio and will configure and program them in practical exercises. A continous exercise concept will lead you gradually to a communication model that is soley based on OPC UA communication.

Objectives

At the end of this training you will be familiar with the basics, the terminology and the data models of OPC UA in the automation environment. You will understand the interaction of its components and be able to configure the most important OPC UA servers and clients of the SIMATIC product portfolio.

Target Group

- Automation engineers
- Programmers
- Commissioning engineers

Content

- Introduction to OPC
- Infrastructure of OPC UA
- Security of OPC UA
- Information model, data access types and profiles of OPC UA
- SIMATIC controllers as OPC UA servers and clients:
    - Configuring the OPC UA server
    - Programming OPC UA methods
    - Programming an OPC UA client
- OPC UA Companion Specifications and modeling the server interface with SiOME
- SIMATIC HMI products as OPC UA servers and clients
    - SIMATIC HMI Comfort/Mobile Panel
    - SIMATIC WinCC Runtime Advanced
    - SIMATIC WinCC Runtime Professional
- OPC UA gateways
    - SIMATIC NET OPC Server
    - SIMATIC CloudConnect 7
- SIMATIC Ident RF600 Reader as OPC UA server
- Integration of 3rd Party OPC UA servers using a 2D code reader
- Standard OPC UA clients (UaExpert, OPC Scout)
- Performance of OPC UA connections
- Diagnostics and debugging of OPC UA components
- Migration from OPC Classic to OPC UA

Prerequisites

- Basic knowledge of network engineering
- Knowledge according to TIA-PRO2
- Basic knowledge of SCL

Type

Face-to-face training

Duration

4 days

Language

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