

## Corso di sistema OPC UA (IK-OPCSYS)

### Short Description

This training offers you a detailed introduction 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.

### Objectives

After attending the course, you can:

- Be familiar with the basics, terminology and data models of OPC UA in the automation environment
- Understand the interaction of OPC UA components
- Configure the most important OPC UA servers and clients from the SIMATIC product portfolio

### Target Group

Automation engineers  
Programmers  
Commissioning engineers

### Content

- Introduction to OPC
- OPC UA infrastructure
- OPC UA security
- OPC UA information model, data access types and profiles
- SIMATIC controllers as OPC UA server and client: OPC UA server configuration, OPC UA method programming, OPC UA client programming
- OPC UA Companion specification and server interface modeling with SiOME
- SIMATIC HMI products as OPC UA server and client: SIMATIC HMI Comfort, SIMATIC WinCC Runtime Advanced, SIMATIC WinCC Runtime Professional
- SIMATIC NET OPC Server
- SIMATIC Ident RF600 Reader as OPC UA server
- Integration of third party OPC UA servers using a 2D code reader
- Standard OPC UA client (UaExpert, OPC Scout)
- Performance of OPC UA connections
- Diagnostics and debugging of OPC UA components
- Migration from OPC Classic to OPC UA

The theoretical knowledge will be deepened with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1500 automation system, a SIMATIC WinCC Advanced operator control and OPC UA applications on a PC.

### Prerequisites

S71500S1 or S71500P1 course or equivalent basic knowledge of automation systems.  
Basic knowledge of the operating principles of the ISO/OSI model.

### Note

You can prepare for this activity through the **SIE-learning 4.0** SIE-OPCUA preparatory course.

### Type

Face-to-face training

### Duration

2 days

### Language

it