

## OPC UA System Course (IK-OPCSYS)

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### Type

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Instructor-led Learning

### Duration and Continuing Education Units (CEU)

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4 Days  
2.6 CEUs

### Target Group

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- Programmer
- Maintenance
- Engineer
- Commissioning

### Short Description

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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 your understanding of all OPC UA capable components. You will also learn about the most important OPC UA servers and clients in the SIMATIC product portfolio. A continuous exercise will lead you gradually to a communication model that is solely based on OPC UA communication.

### Objectives

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- Describe the basic concepts of OPC UA
- Define the terminology and the data models of OPC UA in the automation environment
- Interact with the components in the OPCUA automation environment
- Configure OPCUA servers and clients of the SIMATIC product portfolio

### Content

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- 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
- OPC UA Companion Specifications and modeling the server interface with SiOME
- SIMATIC HMI products as OPC UA servers and clients
- SIMATIC NET OPC Server
- SIMATIC Ident RF600 Reader as OPC UA server
- Integration of 3rd Party OPC UA servers using a 2D code reader
- Standard OPC UA clients
- Performance of OPC UA connections
- Diagnostics and debugging of OPC UA components
- Migration from OPC Classic to OPC UA

### Mandatory Prerequisites

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[TIA Portal Programming 1: US-PTTIAP1A](#)

OR

[AB to S7 with TIA Portal: US-PTABSP1A](#)

**Language**

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English

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