

Objectives of the OPC UA Trainings:

- Improved interoperability in Mechanical Engineering for the manufacturing sector
- Quick introduction to OPC UA for SME's
- Transfer of basic OPC UA and OPC UA Companion Specifications knowledge
- Enabling independent implementation of OPC UA projects
- Enhanced by interactive web content
- Demonstrating the benefits of interoperable communication using practice-oriented examples



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OPC UA Trainings

For Executives, Product Manager and Developers.

Funding note:

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OPC UA for Executives and Product Managers *

Format: Online (E-Learning)

Duration: 27 modules, 6-8h

Target audience: Management, Sales & Distribution, Purchasing, Product Manager, Operations Manager

Prerequisites: No programming knowledge required

Qualification goal: Introductory overview of OPC UA with a focus on decision making, strategic planning, and internal process optimization

Course description: This course is intended for Executives and Product Managers and aims to provide a basic understanding of the relevance and applicability of OPC UA in the context of their own business unit. The focus is on how the technology can help to increase business efficiency.

Contents:

- Added value of OPC UA
- “Introduction of OPC UA in mid-sized businesses“ process model
- Basics of OPC UA Security
- Introduction to OPC UA Profiles
- OPC UA Use Cases
- Integration in production
- Introduction to umati

* All trainings are available in German and English.

OPC UA for Developers (Junior Level)*

Format: Online (E-Learning) + In-person Exercises

Duration: 40 modules, 8h-16h (4h-6h In-person)

Target audience: Developers, PLC Developers, Commissioning Engineers, System Architects

Prerequisites: Programing knowledge beneficial

Qualification goal: In-depth understanding of the development of OPC UA Applications and the ability to carry out simple projects independently

Course description: This course is specifically designed for Technical Professionals who want to get started in the development of OPC UA Applications. It provides a deeper understanding of the basic and advanced concepts of OPC UA, with a mix of theory and hands-on exercises. The combination of online E-Learning and In-person exercises provides a flexible but thorough introduction to the subject matter.

Contents:

- OPC UA Security
- Introduction to integration
- OPC UA Profiles
- OPC UA Modeling + Exercises
- Overview of Companion Specifications
- “Introduction of OPC UA in mid-sized businesses“ Process Model + Exercises
- Establishing OPC UA Connections + Exercises
- OPC UA PubSub
- OPC UA Use Cases
- System Architectures

OPC UA for Machinery *

Format: Online (E-Learning) + Exercises

Duration: 15 modules, 4h-6h

Target audience: Developers, PLC Developers, Commissioning Engineers, System Architects

Prerequisites: OPC UA Modeling knowledge beneficial

Qualification goal: In-depth knowledge of the structure and application of OPC UA for Devices as well as OPC UA for Machinery

Course description: This in-depth course is aimed at Developers with previous knowledge of OPC UA. Participants will receive a detailed introduction to the required types and concepts of the OPC UA Model. They will also become familiar with the Companion Specifications (Devices, Machinery, ISA 95) that are relevant to Mechanical Engineering. Practical exercises enable participants to apply their acquired knowledge using concrete examples.

Contents:

- Introduction to the OPC UA Basic Model: Basic Types, Alarms and Conditions, State Machines
- Overview of Companion Specifications
- Introduction to OPC UA for Devices
- Introduction to OPC UA Machinery Basic Building Blocks
- In-depth review of: Machinery Process Values, Result Transfer, ISA 95 Job Control, Machinery Job Management
- Exercises: Modeling Machinery, Demonstration of OPC UA Job Management