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Monitoring and Configuration of Industrial Networks

Industrial Networks Education

Description

The complexity and number of participants in Ethernet-based production networks are constantly increasing due to growing requirements. Failure of single devices in such networks may result in loss of production and, at the worst, cause a downtime of the whole production chain. To minimize unproductive times and the resulting costs, transparency and a continuous monitoring of the network is crucial.

Objective

In this course, participants will learn how to use the network monitoring and configuration system SINEMA Server to monitor, diagnose and document their network from a central location, as well as to plan, implement and maintain their network monitoring solution. Through in-depth practical exercises you will put the theoretical knowledge into practice.

At the end of the course, participants will be familiar with the requirements and solutions for monitoring industrial networks with SINEMA Server, and will be able to monitor, diagnose and document industrial networks with SINEMA Server.

Contents

- Fundamentals of network monitoring
- Documentation and inventory of networks to create transparency
- Detection and diagnostics of network events
- Customized and clear depiction of the monitored network
- Evaluation and optimization of the network performance
- Integration of the network monitoring data into a higher-level HMI system
- Monitoring of third-party devices (manufacturer-independent network monitoring)
- Implementation of basic network configurations with SINEMA Server
- Mutual monitoring of multiple SINEMA Server instances

Target Group

Plant Engineers, Control Engineers, System Engineers, Commission Engineers, Application Engineers, Operations or IT Network Engineers, Service and Maintenance Personnel, Facility Managers, technical Sales Personnel

Requirements

Knowledge in accordance with the course "Ethernet Fundamentals in Industrial Networks (IK-ETHBAS)": Participants should be familiar with topologies, transmission methods, addressing and transport of data, and understand the associated technical vocabulary. It is also helpful to be familiar with the functionality of routers and switches, as well as the OSI reference model.

Certification (Siemens CEIN-LEVEL)

Following the training, there is an option of taking a certification test. This test is part of the certification to become a "Siemens Certified Expert for Industrial Networks", which consists of several individual tests.