

## CDN-Automation HMI

# WINCC SCADA Configuration

### General Information

Course Code: CDN-ST-WINCCS  
Length: 4½ Days

### Audience

Control system users with engineering or maintenance experience.

### Prerequisites

- MS Windows Expertise
- PLC Programming Expertise

### Profile

This course begins with a system overview of WinCC (Windows Control Centre), emphasizing both the capabilities and special features using a model application.

Detailed configuration procedures are studied based on the typical development of an industrial application. Students learn the correct development process beginning with creating a project and concluding with reporting and printing. Throughout this course, lecture materials are complemented with lab exercises which build a working WinCC application and examples of programs that can be written to take advantage of WinCC open architecture.

### Objectives

*Upon completion of this course, the student shall be able to:*

- Create and manage WinCC projects.
- Establish communication with PLC.
- Design complex graphics.
- Configure internal and external tags.
- Set and test the WinCC alarms and messages.
- Configure, view and print trends.
- Configure and print reports.

### Topics

- WinCC System Overview
  - Applications and available s/w packages
  - Core functions, configurations
  - System architecture
- WinCC Project and Tags
  - Create a new project in WinCC
  - Communication drivers and configuring tags
  - Tag Simulation, cross-reference
- WinCC in TIA

- Overview of TIA functions
- Configuring a PC Station
- Creating tags in WinCC
- Graphics Designer
  - Configuration interface
  - Creating pictures, dynamization, Library
  - Integrating a project
- Scripts
  - Basics of C and VBS
  - Global scripts, functions and actions
- User Administration
  - Authorization levels, user groups and users
  - Protecting objects
- Faceplates
  - Picture windows with tag prefix
  - Faceplate types
- Tag Logging
  - Measurement Point
  - Trend Display
  - Trend Archive
- Alarm-Logging/Messages
  - Message line, messages
  - WinCC Alarm Control
  - Message classes, archives and groups
- Reports Designer
  - Report Designer editor, creating reports, adapt existing reports
- User Archive
  - Creating, viewing, accessing
  - Data transfer to the controller