CODESYS version 3 – A hardware-independent introduction to PLC programming

PLC381

In order to master the fast-changing requirements of embedded and PC-controlled industrial applications, it is increasingly important to master and apply different programming languages. This is complicated by the huge variety of programming software available. Differences in user-interface, functionality and commands sets cause confusion and make mistakes more likely. Codesys – tried and tested, globally introduced hardware-independent software from 3S – offers a Controller Development System according to the IEC 61131-3 with all defined programming languages independent of the hardware manufacturer.
This course demystifies Codesys and gives participants confidence in using it.

Target groups

Maintenance staff, designers, engineers, trainers

Contents

- Design and functions of a PLC
- Overview of the standard IEC 61131-3
- Overview of automation structures and bus systems
- Functionality of the Codesys programming environment
- Use of the 6 programming languages IL, ST, LD, FBD, SFC, CFC
- Offline simulation
- Visualisation
- Configuration and commissioning Festo automation systems

Outcomes

The participant:
- can use and combine IEC 61131-3 languages (Codesys version 3.2) to program an professional solution for an industrial application quickly and efficiently
- can program IEC 61131-2-compatible industrial controllers
- can describe the sequence of the MPS® Distribution Station using GRAFCET
- can program the sequence of the MPS® Distribution Station using a language or combination of languages
- can use debugging tools to simulate, test and trace
- can use Codesys features to troubleshoot
- masters the fundamentals of visualisation
- can create and use different kinds of variables (local, global)
- knows how to find help within the software

Prerequisites

Basic electrical knowledge. We recommend taking the EL131, EL141 and PLC271 courses in advance.

Duration

2 days

Article number

577956