SIEMENS

Online training: SIMATIC - Motion Control in the TIA Portal (TIA-MC)

Short Description

In this course, you will learn to program the motion control functions integrated in the SIMATIC S7-1500 or S7-1200 controllers using TIA Portal. Core topics are the technology objects speed axis, positioning axis and synchronous axis with practical exercises on training devices (SIMATIC S7-1500 and SINAMICS).

Objectives

You will program the SIMATIC S7-1500 or S7-1200 controllers in the TIA Portal. You will be able to precisely control the motion of axes with the integrated motion control functions. In this technology course, you will learn step by step the benefits and the use of these functions. After each learning step, you will deepen your knowledge with hands-on programming. After attending the course you will understand the interaction of the technological functions. You will be able to select and configure appropriate technology objects, such as speed axis, positioning axis and synchronous axis, and integrate them in your program.

Target Group

Programmers, Commissioning engineers, Engineering personnel

Content

- Basics of Motion Control
- SpeedAxis technology object
- PositioningAxis technology object
- Homing and traversing movements
- Programming with PLCopen
- Error messages and diagnostics
- Communication and libraries
- Output cam and measuring input
- Closed-loop control and optimization
- SynchronousAxis technology object
- Practical exercises on training devices with SIMATIC S7-1500 and SINAMICS drives

Prerequisites

Knowledge of programming in the SIMATIC TIA Portal (equivalent to knowledge after completion of the TIA-PRO1 or TIA-SERV2 course)

Note

The motion control function of standard CPUs is seamlessly extended with technology CPUs. In the TIA-MC2 course, you work with the T-CPU and learn the benefits of functions such as absolute synchronous operation and camming.

Type

Online-Training

Duration

5 days

Language

mu