

SIMATIC – Motion Control 2 in the TIA Portal

General Information

Course Code: SCT-PTTIAMC2A
Length: 2 Days

Audience

This course is for Programming and/or Commissioning Engineers who are responsible for maintaining systems with Siemens motion-based control systems.

Prerequisites

- SIMATIC – Motion Control 1 in the TIA Portal (SCT-PTTIAMC1A)
OR
- SIMATIC – Motion Control 1 in the TIA Portal - Virtual (SCT-PTOILTIAMC1A)

Profile

1.3 CEUs (Continuing Education Credits)

Using the motion control functions of the SIMATIC S7-1500 technology CPU, the learner will be able to extend applications with absolute synchronous axes or camming. In this technology course, attendees learn step by step the benefits and use of these functions. After learning each step, attendees will deepen their knowledge through hands-on programming.

After completing the course, the learners understand how camming works and can efficiently assign parameters for technology objects.

Objectives

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

- Use the SIMATIC S7-1500 controller to extend applications with absolute synchronous axes or camming using motion control functions.
- Interpret the interaction of the technological functions.
- Select and configure appropriate technology objects, such as: speed axis positioning axis, synchronous axis and integrate them into a program.

Topics

1. Overview of S7-1500T Technology CPU
2. Absolute and relative gearing
3. Strategies for synchronization and desynchronization
4. Cam disc creation using the graphical cam editor and during runtime
5. Kinematic functions configuration and control
6. Interplay between Motion Control and Safety Integrated
7. Cam disc creation using libraries
8. Practical exercises on training devices with SIMATIC S7-1500T and SINAMICS drives