SIEMENS

SIMATIC Programming 3 in TIA Portal (TIA-PRO3)

Breve descrizione

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. The third part of the SIMATIC TIA Portal programming training is based on the knowledge of the TIA Portal gained in the SIMATIC S7 TIA Portal programming courses 1 and 2, including STEP 7, SIMATIC S7,HMI, connection of drives, and PROFINET IO. You will expand your knowledge regarding the reusability of STEP 7 blocks and their storage in user libraries. You get an introduction in ProDiag. You will create user-specific blocks for reporting, handling and analyzing program errors. You will set up communication between SIMATIC CPUs based on Industrial Ethernet. The comprehensive knowledge that is imparted to you will allow you to shorten configuration times and to react flexibly to the need to optimize your plant.

Obiettivi

After attending the course, you can do the following:
- Understand the principle of object-oriented programming
- Program reusable STEP 7 blocks based on IEC 61131-3 in an object-oriented manner
- Create usable blocks as well as user libraries
- Program STEP 7 blocks for program-related error handling and evaluation
- Program alarm messages with Programm Alarm and ProDiag
- Configure CPU – CPU communication via Industrial Ethernet

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7 automation system, distributed I/O ET 200, a Touchpanel and a virtall plant model.

Gruppo target

Programmers
Commissioning engineers
Engineering personnel

Contenuti del corso

Commissioning of the TIA system model with distributed I/O on PROFINET IO
Local and global error handling in STEP 7 blocks
Reuseable blocks and optimized data access
Indirect addressing of complex data structures and parameters ARRAY*, VARIANT, REF_TO und DB_ANY
Block versioning in Project and Global Libraries
Use of corporate libraries
Creating alarms with Program_Alarm and ProDiag
CPU – CPU communication via Industrial Ethernet
Using technology functions PID controller and drive functions
Working with the test suite
Creating user documentation and using add-ins
Deeper understanding of contents through practical exercises on SIMATIC S7-1500 system model.

Included in the course price: Free access to the digital learning platform SITRAIN access – starting one week before the start of the course until two weeks after the end of the course. Here you will find web-based trainings on
TIA Portal - SW Units , and many more. With the Learning Membership, you can deepen or repeat the content of this Learning Event as well as continue your education on other interesting topics.

Prerequisiti partecipante

SIMATIC S7 knowledge corresponding to TIA-PRO2 or TIA-SYSUP and practical experience in using the knowledge.
Basic knowledge of the SCL programming language according to TIA-SCL1 is mandatory.
You can use the available online entry test to ensure that the selected course matches your area of expertise.

- Online Assessment Test

Nota

In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal.
This is the third of three courses that prepare you for certification as a "Automation Technician Projecting acc. ZVEI, based on the TIA Portal" (CPT-FAP). The examination is a "SITRAIN Certification Program" module.

CPT-FAP

The Learning Membership starts 7 days before the start of the course and ends 14 days after the end of the course. During this period, you have access to all available web-based trainings.

Tipologia

Corso in aula

Durata

5 giorni

Lingua

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