SIEMENS

SIMATIC Programming 2 with SCL in TIA Portal (TIA-SCL2)

Short Description

The Totally Integrated Automation Portal (TIA Portal) provides the working environment for end-to-end engineering with SIMATIC STEP 7 and SIMATIC WinCC. Select this course if you want to program SIMATIC S7 using a high-level programming language. Using complex examples, we will show you the advantages offered by a high-level programming language. The course aims to inform participants about the complete language and performance scope of the Structured Control Language (SCL) development environment. During the training, you will create your own SCL programs, commission and test them.

The course has been innovated and renamed, please follow the link to the new course:
TIA-PROEXP

Objectives

Following the course, you will be able to:
- Significantly reduce the amount of time spent creating and maintaining programs through the use of a high-level programming language (SCL) instead of using a Statement List (STL) as well as LAD/FBD (ladder logic/function block diagram)
- Create, commission and test complex programs in SCL

You put your theoretical knowledge of a TIA system model consisting of an automation system SIMATIC S7-1500 directly into practice and thereby increase your learning success.

Target Group

Programmers
Commissioning engineers
Configuration engineers
Maintenance engineer
Maintenance personnel
Service personnel

Content

Complex data types
Error handling in the block
Handling of SCL sources
Create SCL blocks for optimized performance
Create blocks that are compatible with libraries
Working with array DBs
Working with multi-instance arrays in SCL
Working with tags and symbolic block names
Creating enclosed functions and function blocks in SCL
Introduction to the extended SCL command set
Strings and string processing in SCL
Use of the data types DB-ANY, ARRAY[*] & VARIANT in SCL
Universal block creation using indirect addressing with the help of the VARIANT data type
Creating, commissioning and testing your own SCL programs
Reinforcement of the content using practical exercises on the SIMATIC S7-1500 system model

Prerequisites

Knowledge of SIMATIC S7 based on the TIA Portal corresponding to TIA-SCL1 or extensive experience with related high-level languages such as Pascal, C or Basic. For the latter, experience with SIMATIC STEP 7 based on TIA Portal corresponding to TIA-SYSUP or TIA-PRO2 is mandatory. You must pass the available online entry test in order to register for this course. If you do not pass the test, we recommend attending TIA-SCL1 beforehand.

- Online Assessment Test

Note

In this course you will work with the SIMATIC STEP 7 software based on TIA Portal.

Type

Face-to-face training

Duration

2 days

Language

en