

# **TIA Portal Programming Expert (TIA-PROEXP)**

### **Short Description**

Choose this course if you want to become a SIMATIC S7-1500 expert using a higher level programming language (SCL). You expand your knowledge of the runtime and memory-optimized creation of standardized building blocks for a corporate library. Using a practice-oriented exercise environment with a virtual model of a manufacturing plant, you will deepen your knowledge of the higher programming language.

### **Objectives**

After attending the course, you can do the following:

- Indirect addressing of optimized data
- Programming of reusable STEP 7 blocks based on IEC 61131-3.
- Create versioning of blocks and user libraries
- Program STEP 7 blocks with program-technical error handling and evaluation
- Develop and implement in-house standards

You will deepen your theoretical knowledge through numerous practice-oriented exercises in our virtual learning environment. This consists of a SIMATIC S7-1500 and a virtual model of a production plant.

### **Target Group**

Programmers

#### Content

Reusable building blocks with optimized data access

Indirect addressing of complex data structures by using the parameter types ARRAY\*, VARIANT and REF\_TO

Versioning using typing in the project and global library

Block creation according to the IEC 61131-3

Use of ProDiag to generate block messages

Deepening of the SCL programming language

Deepening of the content through practice-oriented exercises on the SIMATIC S7-1500 and a virtual model of a production plant.

# **Prerequisites**

SIMATIC S7 knowledge corresponding to TIA-PROADV-LJ, 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

### Note

In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal.

## Type

Face-to-face training

### **Duration**

3 days

### Language

en