SIEMENS

Learning Journey - SIMATIC Programming 2 in TIA Portal (TIA-PRO2-LJ)

Краткое описание

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. The second learn-ing journey of the SIMATIC TIA Portal programming training is based on the knowledge of the TIA Portal gained in the SIMATIC S7 TIA Portal programming Basic learning journey, including STEP 7, SIMATIC S7, HMI and PROFINET IO. You expand your knowledge of complex operations and the reusability of program blocks. In addition to analog value processing and data management with complex data types, program-related error evaluation and handling is also considered. Build-ing on this, you will learn how to connect an operating and monitoring system (HMI). Thanks to the knowledge imparted, you will gain new impetus and ideas for efficient PLC programming.

An optimal mix of guided live modules (online) and self-learning modules will provide you with all of the content imperative for your work and sustainable learning success. Various practical tasks in our virtual exercise environment throughout the learning journey help you to prepare for practical application. The learning journey provides curated on-demand content to support you in your own personal practice transfer..

More information on learning journeys

Цели

After this learning journey you will be able to ...
- Understand the interaction of TIA components
- Apply classical program development methods
- Solve comprehensive programming tasks
- structure programs and using software units in the TIA Portal
- use complex / PLC data types
- Implement data administration (arithmetic and management functions) with the SIMATIC S7 automation system
- Apply system blocks and versioned blocks
- Program classical software error handling and evaluation
- Operator control and monitoring system (WinCC Unified Panel)
- Configure TIA system comprising SIMATIC S7, HMI and PROFINET IO

You will deepen your theoretical knowledge through numerous practice-oriented exercises in our virtual learning environment on a TIA system model. This consists of a SIMATIC S7-1500 automation system, WinCC Unified Panel and a virtual learning environment of a production plant

Целевая группа

Programmers
Commissioning engineers
Engineering personnel

Содержание

The Learning Journey TIA-PRO2-LJ (Level:Advanced) consists of:
- 8 live modules (3.5 hours each)
- 18 self-study modules (approx. 12 hours); In addition to the live modules, you should plan about 1 hour of self-study time per day as well as dial-in and follow-up times.
- On-demand themed content
- Individual transfer support in the form of a 1:1 coaching (1 hour)

A learning membership to work through the self-learning modules and access to on-demand content is included for 1 year.

topics
- Tools for program creation (e.g. structograms)
- Analog value processing
- Functions, function blocks, and multi-instances using the IEC-compliant timer/counter as an example (International Electro technical Commission)
- Ways to structure programs and using software units in the TIA Portal
- Working with complex data
- Classical software error handling and evaluation with error organization blocks (OBs)
- Evaluation of diagnostic data
- Integrating WinCC Unified Panel
- Working with Structured Control Language (SCL)
- Deeper understanding of contents through practical exercises in the virtual learning environment of a production plant

Требования к участнику

Basic knowledge of automation technology
With the help of the available online entrance test, you will ensure that the course you choose matches your competences.

- Online Assessment Test.

- Technical requirements > VLab

Примечания

Participation in the learning journey is personal and non-transferable.

Тип

Learning Journey

Продолжительность

40 часы

Язык

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