

## TIA Portal Programming 3 (SCT-PTTIAP3A)

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### Global Reference

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SIMATIC Programming 3 in the TIA Portal (TIA-PROEXP)

### Type

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Face-to-Face Learning

### Duration and Continuing Education Units (CEU)

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29 Hours over 4.5 Days  
2.9 CEUs

### Target Group

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- Engineer

### Short Description

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This course is the third in a three-part series which increases advanced skills with Siemens SIMATIC TIA Portal. Students will learn to leverage the power of TIA Portal software with advanced structured programming techniques. A systems approach to efficiently programming the S7-1500, S7-1200, S7-300, and S7-400 PLC is covered. Students will expand their knowledge regarding the reusability of STEP 7 blocks and their storage in user libraries while gaining an introduction to programming languages statement list (STL), Structured Control Language (SCL) and S7-GRAF.

### Objectives

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- Apply knowledge of the advantages of optimally created blocks and be able to program them
- Efficiently implement the concepts of multiple Instances
- Declare variables of complex data types
- Commission a given SCL block
- Configure alarms according to the Alarm Number Method
- Commission a PID controller with automatic optimization

### Content

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- Training Units and Addressing
- Hardware and Software Commissioning
- Reusable Blocks
- Complex Data and their Addressing
- Structured Control Language - SCL
- Recipes and Alarm Number Method
- Introduction to Industrial Communication
- Technology Objects

### Mandatory Prerequisites

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[TIA Portal Programming 2: SCT-PTTIAP2A](#)

OR

[TIA Portal Programming 2 - Virtual: SCT-PTOILTIAP2A](#)

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**Note**

The core issues of efficient use of CPU resources, establishing communications, passing information, and managing integrated diagnostics are included. This course includes classroom instruction, demonstration, and considerable hands-on lab work.

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**Language**

English

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