

## SIMATIC S7-1200 Basic Course (TIA-MICRO1)

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### Short Description

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You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1200 automation system, a Touchpanel, and a belt model.

### Objectives

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The Totally Integrated Automation Portal (TIA Portal) for SIMATIC S7-1200 forms the work environment for integrated engineering with SIMATIC STEP 7 Basic and SIMATIC WinCC Basic.

In this first part of the SIMATIC TIA Portal S7-1200 training, we teach you the handling of the TIA Portal, basic knowledge about the structure of the SIMATIC S7-1200 automation system, configuration and parameterization of hardware, and the basics of programming. You will learn how to clear simple hardware faults and software errors in the SIMATIC S7-1200 automation system and to create, modify and expand small STEP 7 programs. You will thus be capable of reducing downtime. You will also get an overview on operator control and monitoring.

After attending the course, you can do the following:

- Understand the fundamentals of the interaction of the SIMATIC S7-1200 with an operator control and monitoring device.
- Reliably operate the "TIA Portal" engineering platform
- Create, change, and expand small STEP 7 programs
- Configure, parameterize, and exchange SIMATIC S7-1200 modules
- Diagnose and fix simple hardware faults using the wiring test
- Diagnose and fix simple program errors using the status block
- Perform simple commissioning of the SIMATIC S7-1200

### Target Group

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Programmers  
Commissioning engineers  
Engineering personnel  
Maintenance personnel  
Service personnel  
Operators

### Content

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Overview and significant performance characteristics of the SIMATIC S7-1200 system family  
The components of the TIA Portal: SIMATIC STEP 7 Basic and WinCC Basic  
Program execution in automation systems  
Binary and digital operations in the function block diagram (FBD)  
Setup and assembly of the SIMATIC S7-1200 automation system  
Addressing and wiring the signal modules  
Hardware and software commissioning of the SIMATIC S7-1200 with the TIA Portal  
SIMATIC S7-1200 hardware configuration and parameterization  
Introduction to the Touchpanel  
Saving and documentation of the implemented program changes with the TIA Portal  
Deeper understanding of contents through practical exercises on SIMATIC S7-1200 system model

### Prerequisites

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Basic knowledge of automation technology

You can use the available online entry test to ensure that the selected course matches your area of expertise.

This blended learning course combines web-based training (WBT) on the Internet with a 3-day attendance course: To prepare for the attendance course, you will receive the WBT "PLC Knowledge for Beginners". This allows you to improve your personal learning achievement in the attendance course.

### Note

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For more in-depth knowledge, we recommend the course TIA-MICRO2.

### Type

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Face-to-face training

### Duration

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3 days

### Language

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