

## On line-Training Diagnostica di base con TIA Portal (TIA-DIAG1)

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### Short Description

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The course provides basic knowledge for performing analysis activities necessary to identify hardware and software issues within the TIA Portal environment. Through the use of system diagnostics and integrated tools, participants will learn how to identify the cause of a fault or machine downtime, assess its severity, and take action to restore the automation system. Basic knowledge will also be provided for identifying faults in communication networks.

### Objectives

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- Understand the typical components of an automation system
- Identify hardware errors
- Use diagnostic tools to troubleshoot and restore the automation system

### Target Group

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- Electrical and mechanical maintenance technicians
- Operators

### Content

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- Typical architecture of a SIMATIC S7-1500 automation system
- Installation and replacement of SIMATIC S7 hardware components
- Interpretation of hardware errors using integrated diagnostic tools (CPU display, expansion module LEDs, etc.)
- Use of the SIMATIC TIA Portal environment for diagnostics and error detection
- Use of diagnostic tools for analyzing machine/plant downtimes: variable tables, forcing, online functions, etc.
- Main user program instructions (Boolean instructions, timers, counters) and their analysis using the block monitoring tool
- Basic diagnostics on PROFINET networks

### Prerequisites

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No prerequisites required

### Type

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Online-Training

### Duration

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18 hours

### Language

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