

## TIA Portal Openness Programmierung 1 (DI-OPEN1)

### Short Description

TIA Portal Openness is the API or programming interface provided with TIA Portal, with which you can efficiently automate engineering tasks without using TIA Portal itself. This includes tasks such as project management, configuration and parameterization of hardware, automatic generation of block code as well as various online functions. During the training, you will create, commission and test your own simple Openness applications. The course will introduce you to the programming language C# in combination to TIA Portal Openness.

### Objectives

The aim of the course is to provide you with an introduction to programming with C#. You will learn the basics of the range of languages and performance of the Openness API in Visual Studio and how to use the C# programming language.

By the end of the course you will be able to

- program with Visual Studio and the C# programming language
- create small applications with TIA Openness

### Target Group

- Programmers
- Configuring engineers

### Content

- Introduction to Visual Studio and the C# programming language
- Control structures (branches and loops)
- Introduction to the most important data types integrated in C#
- Using of methods
- Introduction to the structure of classes and the object-oriented programming concept of C#
- Introduction to the use of interfaces with Windows forms
- Introduction to TIA Portal Openness
- Tools for debugging programs
- Outsourcing of recurring tasks to methods

This course includes a 4-week Learning Membership for our digital learning platform [SITRAIN access](#). Here you will find web-based trainings on [TIA Openness](#) as well as other topics such as [Digital Enterprise](#), [SIMATIC Automation Systems](#) and many more. With the Learning Membership, you can deepen or repeat the content of this learning event as well as continue your education on other interesting topics.

### Prerequisites

- Good TIA Portal knowledge
- Basic high-level programming language knowledge

### Note

The Learning Membership starts 7 days before the start of the course and ends 14 days after the end of the course. During this period, you have access to all of the more than 270 web-based trainings available.

### Type

Face-to-face training

### Duration

3 days

### Language

de