

## DCS: SIMATIC PCS7 AS ENGINEERING (AS-PCS7AS)

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### Objectives

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- In this course, SIMATIC PCS 7 users will become familiar with the possibilities of the SIMATIC PCS 7 process control software with an emphasis on the AS.
- The focus is on application of the various type/instance concepts in SIMATIC PCS 7, which support efficient AS engineering, including working with process tag types and control module types, application of SFC. With the help of SIMATIC PCS 7 Logic Matrix, you will create complex interlock functions in your user program quickly and easily.
- Through practical exercises put newly acquired theoretical knowledge into practice. This will increase your learning success.
- After the course, you will be able to configure process automation optimally and efficiently.

### Target Group

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- Project manager, project staff, Technologists
- Configuring engineers, programmer
- Commissioning engineers
- Maintainer

### Content

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#### Project management :

- Multiproject and multiuser engineering: Configuring in the network
- Update of block types in Run (TCiR)
- Comparison and versioning of project versions with Version Train and Version Cross Manager
- Licenses and configuration limits in PCS 7 as well as the current license model with the CPU 410-5H

#### Type/instance concept, process tag type and IEA :

- Bulk data processing with the Import/Export Assistant (IEA) and IEA file editor
- Changes to process tag type and synchronization of process tags
- Adaptation of existing charts as process tags (branches)

#### Type/instance concepts with control modules and technological list editor :

- Basics of the type concept with control module types
- Configuring of control module types
- Bulk data processing with the technological list editor
- Variants of control modules based on optional blocks
- Synchronization behavior

#### System layout and hardware configuration :

- Memory concept and system architecture
- Important CPU settings and response to maximum cycle time violation
- Updating of the HW CatLog
- Time synchronization
- Current redundancy concepts of PCS 7

#### Configuring of interlocks with the SIMATIC PCS 7 Logic Matrix :

- Positioning, definition of terms and signal processing
- Engineering and visualization of SIMATIC Logic Matrix

#### Sequential control systems with SFC types :

- Calculations, state logic and state transitions in the SFC
- Basics and configuring of SFC types
- Change of control strategy and setpoints for an SFC instance

#### Application of APC Library :

- Overview APC Tools in the PCS7 Libraries and APC-Examples, Controller optimization using the PID Tuner
- Digitalization offerings in Process Industries

#### Hands on :

- Exercises defined based on Topic explained.
- Hands on practice.

## Prerequisites

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- Completion of the PCS7 Basics course is recommended
- Basic knowledge of process control engineering
- Practical experience in configuring SIMATIC PCS 7

## Note

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**Software Version: PCS7 V9.0**

## Type

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Face-to-face training

## Duration

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5 days

## Language

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en

## Fee

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40,000 INR  
18% GST additional on Course fees