

## PROFINET and H-Systems in the Process Automation (ST-PCS7PNH)

### Short Description

Learn from Siemens how you can implement process automation at the field level with the future-oriented PROFINET as open Industrial Ethernet standard.

### Objectives

Using new SIMATIC PCS 7 components, you will learn how to quickly and effectively plan the fieldbus with PROFINET, assign parameters to it, commission it and eliminate faults.

Discover how you can make existing I/O future-proof using the PROFINET blueprints.

In addition, learn about handling, configuration, commissioning, diagnostics and troubleshooting of the high availability SIMATIC S7-400H system in the process automation environment with SIMATIC PCS 7.

You will reinforce the theoretical knowledge gained with many practical exercises.

### Target Group

Project managers  
Project workers  
Programmers  
Configuration engineers

### Content

Fundamentals of Industrial Ethernet, PROFIBUS and PROFINET  
Redundant PROFIBUS  
Introduction to PROFINET  
Design and planning of fieldbus systems based on PROFINET IO blueprints  
PROFINET IO with configuration and topology  
Diagnostic options and use of PRONETA  
Commissioning ring redundancy with MRP  
Configuration of SCALANCE switches for the PROFINET fieldbus  
Plant-wide engineering & diagnostics using the Service Bridge Switch  
Configuration and integration of the ET 200SP HA with DI/DQ module  
Configuration of high-precision time stamping with the ET 200SP HA  
Use of new PROFINET functions: System redundancy R1, CiR for Profinet  
Redundancy theory: Explanation of terms, calculation of availability and common cause errors  
CPU410-5H / S7400H: Synchronization, operating modes, operating systems  
Hardware settings: H-parameters, self-test, DBs, H-CiR

### Prerequisites

Attendance of course ST-PCS7SYS is recommended  
Basic knowledge of process control engineering  
Practical experience in SIMATIC PCS 7 configuration  
Basic knowledge of APL, as communicated in the system course

### Note

Included in the course price: Free access to the digital learning platform SITRAIN access – starting one week before the start of the course until two weeks after the end of the course.

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.

Only the "high availability" aspect of S7-400H systems is covered in this course. The configuration/programming of fail-safe SIMATIC S7-400H systems with the "F-systems" software package is a component of the course ST-PCS7SAF.

### Type

Face-to-face training

### Duration

4 days

### Language

en

### Fee

31,100 SEK

