

## SIMATIC S7 Ethernet/PROFINET Course (IK-ETHERPR)

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### Short Description

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This course is directed at Programmers, Commissioning engineers, Configuring engineers, Service personnel, Maintenance personnel involved with the design, commissioning and sustaining of an S7 Industrial Ethernet and PROFINET networks. The course uses a 'hands-on' practical approach to reinforce the theoretical aspects of the training.

### Content

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Introduction to SIMATIC Net - Industrial Ethernet  
Network Components and Installation Guidelines  
Overview of Industrial Twisted Pair Networks  
Industrial Twisted Pair Network Components  
Communications Processors  
Overview of supported protocols - TCP, ISO on TCP, ISO & UDP  
Project Planning and Configuration of the Ethernet CP module  
Data Communication with Industrial Ethernet using S7 Connections  
NCM S7 Ethernet Diagnostics  
Industrial Wireless LAN  
OPC Basics  
Overview and introduction to PROFINET technology  
PROFINET IO device types: IO controller, IO device, IO supervisor  
Connections, network components, transmission media  
Planning and installation of switched Ethernet networks  
Installation guidelines for PROFINET systems  
Configuring of PROFINET IO networks  
Description files of the devices  
Structure, start-up and diagnostics of a PROFINET IO network  
Function test of the PROFINET IO network  
Diagnostics - Web Based Interface of PN CPU & FB126 for HMI display  
MRP redundancy in PROFINET networks  
Each of the above topic areas are backed up by practical exercises using a system model, consisting of the S7- 300 automation system, the ET200S distributed peripheral, the ET200M distributed peripheral and a conveyor model. Working examples are provided and tested out during the course.

### Prerequisites

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The ability to use a MS Windows PC (W7), keyboard and mouse to include opening and closing programs, locating files, copy and paste objects /data (text, etc). Drag and drop files, objects/data (text, etc). Use of menus and multi-menus, manipulation of windows within a multi-window environment. Use of MS Windows Help.  
Must have attended either ST-PRO1 or ST-SERV1 and ST-SERV2.

### Note

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Course Duration - 5 Days  
This training is not appropriate for trainees using S7-200/1200/1500 based systems. All configurations are demonstrated using Step7 V5.5 and not Step7 in the TIA Portal.

### Type

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Face-to-face training

### Duration

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5 days

### Language

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