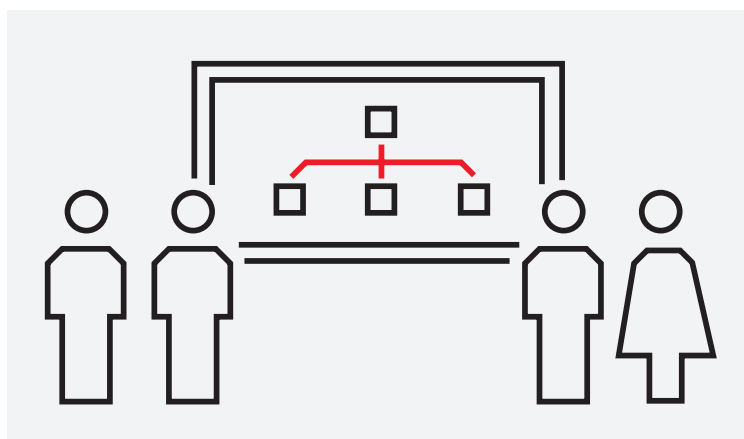


## COURSE DESCRIPTION

# S341

## SD Series fieldbus management



The goal of this course is to learn how to couple intelligent field devices to S+ SD Series controllers using PROFIBUS and HART. The course is covering the basics on the communication protocols as well.

### Learning objectives

Upon completion of this course, students will be able to:

- Explain fieldbus technology basics, particularly PROFIBUS and HART
- Plan coupling of an SD Series system with PROFIBUS and HART devices
- Install and configure the required software components
- Configure and commission PROFIBUS and HART devices using device specific DTMs
- Configure and commission PROFIBUS devices via GSD file
- Configure cyclic HART communication
- Use Harmony Analyzer to troubleshoot disturbance on the PROFIBUS network
- Exchange PROFIBUS and HART devices

### Participant profile

This training is targeted to system and application engineers, commissioning and maintenance personnel, service engineers and system integrators.

### Prerequisites

Students should have a general understanding of process automation, basic knowledge of S+ SD Series controllers and S+ Engineering for Harmony.

### Topics

- PROFIBUS and HART basics
- Bus access procedure, cyclic and non-cyclic communication
- Topology of an S+ SD Series system with PROFIBUS and HART devices
- Coupling of HART devices via PROFIBUS DP and S800-I/O
- Coupling of HART devices via SD Series I/O
- Configure PROFIBUS DP master
- Configure PROFIBUS DP slave
- Configure PROFIBUS PA slave
- Configure modular field devices based on DTMs and GSD-file
- I/O function blocks for PROFIBUS and cyclic HART communication
- PROFIBUS Diagnostics using Harmony Analyzer

### Course type and methods

This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 40% of the course is hands-on lab activities.

### Course duration

The duration is 4 days

## Course outline

Day 1	Day 2	Day 3	Day 4
Course overview	PROFIBUS DP Master	PROFIBUS diagnostics via Harmony Analyzer	Fieldbus topology of S+ SD Series system with HART devices
PROFIBUS and HART basics	Configuring PROFIBUS slaves based on DTM	Hands-on lab: Exercises	Configuring HART devices
PROFIBUS and HART in Symphony Plus basics	Configuring PROFIBUS slaves based on GSD		Hands-on lab: Exercises
Fieldbus topology of S+ SD Series system with PROFIBUS devices			

## ABB

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