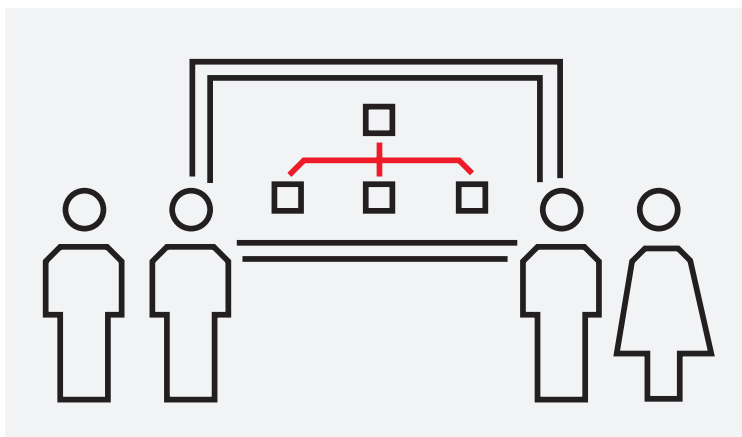


COURSE DESCRIPTION

## S357

# Symphony Plus - DCS system configuration



The goal of this course is to provide an accelerated overview to learn the configuration and features of the Symphony Plus SD Series hardware, engineering tools, and operator console (HMI) used in a DCS application.

### Learning objectives

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

- Explain the SD Series control based system architecture
- Identify the SD Series controllers and I/O hardware modules
- Set up SD Series controllers
- Flash Firmware to SD Series hardware modules
- Manage users with the User Management tool
- Create a new S+ Engineering for Harmony project
- Create a new Control Engineering project
- Configure and Inspect the SD Series controller
- Create a Control Logic Document (CLD)
- Use System Topology tool
- Utilize reports, trends, and live data to evaluate control loop and controller behavior
- Verify configuration files
- Create user folders, shapes and macros for use in CLD development
- Set up a Control Logic Template (CLT)
- Navigate Field Engineering tool
- Use Bulk Engineering tool
- Configure SD Series I/O modules
- Navigate within the S+ Operations Explorer
- Check and configure HMI server redundancy
- Create and export HMI tag list
- Manage and configure alarm and events
- Set up the historical data collection and configure trend displays
- Configure process graphic displays and define navigation links
- Create graphic elements
- Configure security user accounts
- Backup and restore system configuration

### 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 and basic knowledge of control systems. Experience in dealing with and handling of current Microsoft operating system is an advantage.

### Topics

- System architecture
- SD Series communications
- SD Series controllers
- SD Series I/O modules
- Virtual PNI (VPNI)
- User Management tool
- S+ Engineering for Harmony project
- Control engineering projects
- System Topology tool
- Function Codes programming
- Field Engineering tool
- Bulk Engineering tool
- Operator workplace
- S+ Operations server redundancy
- S+ Operations nodes configuration
- S+ Operations tag database
- Control faceplates, alarm and events, trend displays
- Process graphics
- Historical data collection
- User security
- Backup and restore

### Course type and methods

This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab activities.

### Duration

9 1/2 days

### Agenda

Day 1	Day 2	Day 3	Day 4	Day 5
Course overview	SD Series firmware	Control Engineering project	System topology	Shapes and macros
System architecture	Install S+ Engineering for Harmony	Function codes	Monitor/Trend CLD data	Configuration Logic Templates (CLT)
Communications	Workbench layout	CLD configuration	Verify	Field engineering
SD Series controllers	User management	I/O configuration	Online configuration	Bulk engineering tools
Hands-on lab: Exercises	VPNI setup	Hands-on lab: Exercises	Hands-on lab: Exercises	Hands-on lab: Exercises
	Hands-on lab: Exercises			
Day 6	Day 7	Day 8	Day 9	Day 10
Symphony Plus Operations Explorer	Historical data collection	Graphic displays	Security	Time sync
S+ Operations redundancy	Trend displays	Graphic elements	Operator Workplace	Web Client
Tag Database integration	Alarms and Events	Hands-on lab: Exercises	Backup and restore	Hands-on lab: Exercises
Hands-on lab: Exercises	Hands-on lab: Exercises		Hands-on lab: Exercises	Questions and Answers

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