

COURSE DESCRIPTION

# S444

## Evolution of HR to SDe series system



The goal of this course is to learn the process of evolving from HR to SDe series system.

### Learning objectives

Upon completion of this course, the participants will be able to:

- Refresh on Harmony Rack architecture.
- Recognize the SDe system architecture and function of the different components.
- Establish PN800 Network Communications.
- Replace old HR to SDe Controllers.
- Upgrade project from HR controller to SDe controller.
- Setup different communication protocols with SDe controller after migration.
- Configure SDe Series I/O Modules.
- Maintenance and system Diagnostics

### Participant Profile

This training is targeted to system and application engineers, commissioning and

maintenance personnel, service engineers and system integrators.

### Prerequisites

Students should have basic knowledge of Windows 10, Windows Server 2019, and Office 2016/2019. They should also have attended the course M202 or S301 or S312, S336, S341 S+ classes, 800xA Harmony connect T321 have a basic knowledge about the fundamentals of Process Control Systems.

### Topics

- Course overview
- System Overview and Introduction
- Hardware: SDe Controller, I/Os, evolution chassis, features
- S+ Engineering Network, PN800 and Infinet differences

- Application engineering Prerequisites, conversion tool
- HMI Connectivity, Tag list updates
- Connectivity engineering
- Maintenance and Diagnostics

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 type and methods**

**Course duration**

The duration is 4.5 days.

<b>Course Outline</b>				
<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>	<b>Day 5</b>
Introduction to Harmony rack	PN800 and Infinet different architectures	Application Engineering - migration Tool	SGS upgrade and configuration	Maintenance & diagnostics for SPC810e
Introduction to SD series	Hybrid Network architectures	Compatibility of Hardware/ Software	GPI upgrade & configuration	SPO & 800xA
Power supplies MPS3, MPS4	PN800 segmentation	SPO connectivity with SPC810e	HOPC Migration	Connectivity diagnostic
SDe series	PN800 Network configuration	800xA connectivity with SPC810e	Compatibility of SPC810e with	
Controllers & I/O	PN800 Network configuration	Legacy HMI connectivity with SPC810e	Different protocol DNP 3.0, IEC61850	
SPC810e controller, Evolution Chassis mount & Din rail	PN1800, VPNI, IPT800		IEC60870, Profibus	
mount solution	Plant Network Upgrade use cases.	Modification in Historian system	Distributed	
SPC810e installation & configuration			Sequence of event (SOE)	