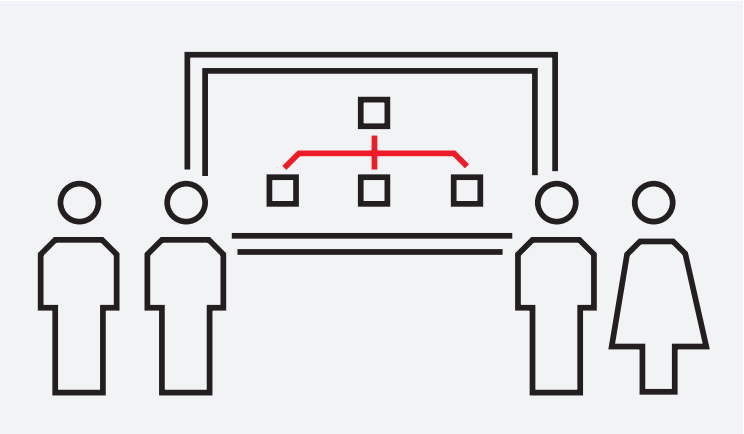
COURSE DESCRIPTION

S342

HR Series – Hardware configuration



The goal of this course is to familiarize students with the Symphony Plus Harmony Rack series system architecture and to recognize the various hardware components found in the Harmony Control Unit.

Learning objectives

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

- Plan an appropriate architecture for a Symphony Harmony system
- Interpret the layout of conventional ABB cabinet arrangements
- Establish data highway communication
- Configure and implement Harmony controllers and various I/O modules along with their support equipment
- Establish Harmony controller redundancy
- Create a Control Engineering project
- Recognize basic function codes
- Utilize Composer software tools for monitoring and diagnostics
- Configure Rack and SD I/O modules to communicate with Harmony Controllers
- Read the field input/output external connection drawings
- Perform on-line configuration

Participant profile

This training is targeted to students responsible for installation, maintenance, and process control implementation of the Symphony Harmony/INFI 90 System. It is also a prerequisite for anyone planning to attend the M202 or S312 course.

Prerequisites

Students should have a basic knowledge of process control and plant operations concepts. Basic knowledge and usage of applications running on a Windows based operating system is also recommended.

Topics

- Symphony Harmony System Architecture
- Symphony Harmony Communication
- Harmony Controllers
- Harmony Function Code Programming
- Control Engineering Projects
- HR and SD I/O Modules
- HR and SD I/O Configuration and Externals
- Online Configuration

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

4 1/2 days

Agenda

Day 1	Day 2	Day 3	Day 4	Day 5
Course overview	Harmony rack controllers	Introduction to function codes	I/O module configuration	Online configuration
Symphony Harmony architecture	Control engineering project definition	I/O module hardware	I/O module externals	Hands-on lab: exercises
Symphony Harmony communications	Hands-on lab: exercises	Hands-on lab: exercises	Hands-on lab: exercises	Questions and answers
Hands-on lab: exercises				

ABB
Power Generation Training
Email: IT-powergeneration.training@abb.com

2VAA009391 Power Generation 0517