

# M111

## Harmony Control Unit – Rack I/O with Composer

Learn the INFI 90 Open/Symphony system architecture and Harmony Control Unit hardware. Create and monitor a process control strategy utilizing Composer software.



### Course type and methods

This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

### Student profile

This training is targeted to students responsible for DCS component selection, installation, maintenance and process control implementation and documentation. It is also a prerequisite for anyone planning to attend course M202, Composer Automation Architect.

### Prerequisites

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

### Course objectives

Students will learn about the features of the Symphony/INFI 90 Open control system and the Harmony Control Unit hardware components. Using a simple process control loop model as a base project, students will utilize Composer software to create a process control strategy for monitoring, tuning, and diagnostics.

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

- Incorporate Symphony/INFI 90 Open hardware into the process strategy
- Interpret conventional ABB cabinet arrangement drawings
- Recognize basic function codes
- Establish data highway communication

- Configure and implement Multi-Function Processor (MFP), Bridge Controller (BRC) and various I/O modules along with their support equipment
- Establish MFP/BRC redundancy
- Perform on-line configuration
- Read the field input/output external connection drawings

### Main topics

- Symphony/INFI 90 Open control system architecture
- Symphony/INFI 90 Open control system data communication
- Harmony Function Code programming basics
- Symphony/INFI 90 Open control system diagnostics

### Duration

The duration is 5 days.

## Course outline

### Day 1

- Course overview
- Introductions
- Symphony/ INFI 90 Open overview
- Symphony/ INFI 90 Open loop communications
- Symphony/ INFI 90 Open node communications

### Day 2

- Review: questions and answers
- Harmony process controllers
- Cabinet arrangement drawings
- Introduction to Harmony Function Codes

### Day 3

- Review: questions and answers
- Composer project definition
- Closed loop configuration
- On-line configuration

### Day 4

- Review: questions and answers
- Harmony Rack I/O module hardware
- Harmony Rack I/O module configuration

### Day 5

- Review: questions and answers
- Harmony Rack I/O module configuration
- Open lab

To register contact the North America Customer Service Center or visit our website.

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