M111 Harmony Rack I/O with Composer

Course Description

Course Duration
The duration is 5 days.

Course Type
This is an instructor led course.

Course Goal
The goal of this course is familiarize students with the various hardware components found in the Harmony Control Unit and to understand the Symphony/Infi90 Open® System Architecture.

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

Prerequisites and Recommendations
Students should have a basic knowledge of process control and operations concepts. Basic knowledge and usage of applications running on a Windows NT or Windows 2000 operating system is also recommended.

Description
Students will learn about the features of the Symphony/Infi90 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 tools to create a process control strategy. “Hands-on” exercises provide the opportunity for monitoring, tuning, and diagnostics of the Harmony Control Unit with Composer software.

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

- Incorporate Symphony/Infi90 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/Infi90 Open® System Architecture
- Symphony/Infi90 Open® System Data Communication
- Function Code Programming Basics
- Symphony/Infi90 Open® System Diagnostics
Course Calendar - M111 Harmony Rack I/O with Composer

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| • Introductions  
  • Symphony/INFI90 Open Overview  
  • Symphony/INFI90 Open Loop Communications  
  • Symphony/INFI90 Open Node Communications | • Review: Q/A’s  
  • Harmony Rack Controllers  
  • Cabinet Arrangement Drawings  
  • Introduction to Function Codes | • Review: Q/A’s  
  • Composer Project Definition  
  • Closed Loop Configuration  
  • On-line Configuration | • Review: Q/A’s  
  • Harmony Rack I/O Module Hardware  
  • Harmony Rack I/O Module Configuration | • Review: Q/A’s  
  • Harmony Rack I/O Module Configuration |