

AU305 Symphony Harmony with Composer

Course Description



Course Duration

The duration is 5 days.

Course Type

This is an instructor led course with interactive classroom discussions and associated lab exercises.

Course Goal

To provide the student with basic-level skills and knowledge in operation & installation of the major components that make up the ABB Symphony DCS system. Teach the basic programming functions and features of the Engineering Work Station using the Composer application.

Student Profile

This course is targeted at students responsible for DCS installation and maintenance, process control implementation and documentation.

Prerequisites and Recommendations

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

Course Objectives

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

- Describe the system architecture
- Define and understand hardware set up of modules and termination units in a system.
- Organise a Composer Client/Server networking architecture

- Debug and understand configurations, isolate problems and restore system to normal operation utilising appropriate tools and documentation.
- Find simple faults on the system to I/O channel level
- Create a project structure in the System Architect window based upon a process control architecture
- Configure a control logic document
- Use basic function codes
- Load the compiled configuration file to the controller and perform an on-line configuration change
- Evaluate control loop and controller characteristics by retrieving reports and trending and monitoring values
- Generate the tag database
- Understand the use of Templates in the creation of a control logic strategy

Main Topics

- Harmony System architecture
- Loop Communications
- Addressing
- Function Codes
- Inspect Application
- Controllers
- Rack I/O & S800 for Harmony
- Composer Automation Architect Programming & Documentation
- System Diagnostics and Monitoring



Course Calender – Symphony Harmony with Composer

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none"> • System Architecture • Process Control Units • Module Addressing 	<ul style="list-style-type: none"> • Introduction to Function Codes • Processors • Loop Communications • Power Systems 	<ul style="list-style-type: none"> • EWS Tools • Harmony Fault Finding • Composer Architecture • Create a project 	<ul style="list-style-type: none"> • Connect to C-Net • Configure a CLD • Compile, Load & Verify logic to controller • Monitor & Trend • Create User Macro & Shape Folders 	<ul style="list-style-type: none"> • System Drawings • Control Logic Templates • Tag List Creation • Misc Tools

