

S312

Symphony Plus Engineering for Harmony



Learn the engineering steps of a Harmony control project using the S+ Engineering Workbench tools with Harmony controllers.

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.

Student Profile

This training is targeted to system and application engineers, commissioning and maintenance personnel, service engineers, and system integrators.

Prerequisites

Students shall know the fundamentals of working with control systems, have basic knowledge of Windows and networking technologies, and have attended M111 or S311 courses. If you already attended the M202 course, consider US909 – S+ Engineering Transition course instead of S312.

Course objectives

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

- Review the Harmony System architecture and the function of the different components
- Load S+ Engineering Workbench
- Navigate in the S+ Engineering Workbench
- Setup the Virtual PNI
- Create a new control project
- Use System Topology tool
- Configure and Inspect the Harmony controllers
- Create a Control Logic Document (CLD)

- Compile & load a config file to a Harmony controller
- Load/Save/Verify Configuration files
- Use I/O List Management tool
- Utilize reports, trends, and live data to evaluate control loop and controller behavior
- Create User folders, Shapes and Macros for use in CLD development
- Utilize System CLD files for I/O definition
- Setup a Control Logic Template (CLT)
- Create Project and console Tag list; export to an HSI

Main topics

- Harmony System architecture
- S+ Engineering Project
- User Management
- Virtual PNI
- Harmony Controllers
- Inspect, Problem/Status Reports
- System Topology
- Harmony Function Code Programming
- Automation Architect
- I/O List Management
- Trends/CLD Monitoring
- User Folders/Shapes/Macros
- System CLDs
- Configuration Logic Templates
- Tag Database

Duration

The duration is 5 days

Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none">• Course overview• Symphony Plus Architecture review• Load S+ Engineering Workbench• Workbench User Management• VPNI Setup• Hands-on lab: Exercises	<ul style="list-style-type: none">• Workbench Layout• Composer Project• System Topology• Harmony Function Codes• CLD Configuration• Hands-on lab: Exercises	<ul style="list-style-type: none">• Compile/Load a CFG file• Monitor/Trend CLD data• Verify• I/O List Management• Hands-on lab: Exercises	<ul style="list-style-type: none">• Shapes & Macros• System CLDs• Configuration Logic Templates (CLT)• Hands-on lab: Exercises	<ul style="list-style-type: none">• Tag Lists• Hands-on lab: Exercises• Questions & Answers

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