ABB UNIVERSITY COURSE DESCRIPTION

US932

Foreign Device Interfacing for Harmony Systems

Learn to install, configure and maintain foreign device interfaces for Harmony systems.

Course type and methods
This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion. Approximately 50% of the course is hands-on lab activities.

Student Profile
This training is targeted to system and application engineers, commission and maintenance personnel, service engineers and system integrators.

Prerequisites
Students should have attended course M111, Harmony Control Unit – Rack I/O with Composer, and M202, Composer Automation Architect, or have knowledge and experience equivalent with the content of these courses. Successful completion of the courses is required unless special permission is requested and granted by the instructor. Basic knowledge and usage of Windows Server 2012 is also required.

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

- Explain RS232, RS423 and RS485 data communication standards
- Test and troubleshoot serial communications
- Configure and troubleshoot a Harmony Serial Modbus interface
- Capture serial Modbus messages and interpret the messages
- Configure and troubleshoot a Harmony BRC interface

Main topics

- Using a breakout box, voltmeter, oscilloscope, protocol analyzer, and other tools to troubleshoot RS232 and RS485 interfaces
- Modbus and other serial industrial protocols
- Harmony serial foreign device hardware and software setup
- Emulators and other tools for troubleshooting Modbus
- Configuring BRC410 hardware
- Modbus TCP
- HGS software for configuring BRC410
- Troubleshooting BRC410 with emulators and other tools
- Control Builder project framework
- Configuring the AC800M Modbus TCP interface

Duration
The duration is 5 days

Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
• Course information • Serial protocols • Interfacing RS232 and RS485 • Troubleshooting	• Capturing data with a serial protocol analyzer • Modbus and other industrial protocols • Using emulators to test and troubleshoot • Harmony Modbus interface	• BRC410 Hardware and Architecture • Modbus TCP and HGS Software	• Troubleshooting the BRC410 interface • Control Builder Project Framework	• AC800M Modbus TCP interface

To register, contact the North America Customer Service Center or visit us online
ABB Inc.
+1 800 HELP 365 Option 2, Option 4
Fax: +1 919 666 1388
abbuniversity@us.abb.com

abb.us/abbuniversity

3BUS095363B