

# ControlNet™ and RSNetWorx™

## ControlNet™ and RSNetWorx™ Maintenance and Troubleshooting Course Description

### COURSE AGENDA

#### Day 1

- Getting Started with Troubleshooting a ControlNet and RSNetWorx Network
- Troubleshooting a ControlNet and RSNetWorx Media System
- Isolating Faulty ControlNet and RSNetWorx Media Using Signal Measurement Equipment
- Isolating ControlNet and RSNetWorx Network Malfunctions Using LEDs and Mnemonic Displays

#### Day 2

- Connecting to a ControlNet and RSNetWorx Network Using RSLinx® Software
- Identifying a ControlNet and RSNetWorx Network Malfunction Using RSLinx Software
- Troubleshooting a ControlNet and RSNetWorx Network Using RSNetWorx™ for ControlNet Software
- Troubleshooting a Scheduled ControlNet and RSNetWorx Data Connection for Logix5000™ Controllers
- Troubleshooting a Scheduled ControlNet and RSNetWorx Data Connection for PLC-5® Processors



### COURSE NUMBER: CCP172

#### *Course Purpose*

This course is designed to provide maintenance technicians with the necessary skills to effectively troubleshoot ControlNet and RSNetWorx hardware and software. Students will build their skills by using troubleshooting best practices and network troubleshooting tools in order to safely and efficiently return a network to operation.

During this course, the instructor will introduce a logical process for troubleshooting ControlNet and RSNetWorx components and demonstrate how to identify problems with communications cards, cabling, and other network hardware. Students will practice each step in the network troubleshooting process from verifying the media system to correcting connection configuration errors.

After completing this course, students will have hands-on experience troubleshooting a ControlNet and RSNetWorx network that they can immediately apply to their job responsibilities.

#### *Who Should Attend*

Individuals who are responsible for maintaining an existing ControlNet and RSNetWorx network should attend this course.

LISTEN.  
THINK.  
SOLVE.®

### **Prerequisites**

An ability to perform basic Microsoft Windows tasks is required to successfully complete this course. Experience with Windows-based programming software (RSLogix™ 5, RSLogix™ 500, or RSLogix™ 5000 software) is desirable, but not essential.

### **Required Tools**

Students attending this course will receive hands-on practice terminating coaxial cable. To practice these skills and perform them effectively on the job, each student will receive a ControlNet Coax Cable Tool Kit as part of the Student Package. Each kit contains the following tools:

- Cable strip tool
- Crimp tool
- Utility knife
- Wire cutters
- Calibration/flare tool
- Terminators and connectors

### **Student Materials**

To enhance and facilitate each student's learning experience, the following materials are provided as part of the course package:

- *Student Manual*, which contains the key concepts, definitions, and examples presented in the course and includes the hands-on exercises.
- *ControlNet and RSNetWorx Procedures Guide*, which contains clear and concise step-by-step procedures for performing the tasks addressed in class, as well as other tasks associated with the configuration and management of a ControlNet network using a variety of software tools.
- ControlNet Coax Tool Kit
- *ControlNet Documentation Reference Guide*, which contains excerpts from several different technical publications. This guide is a quick and efficient on-the-job resource for ControlNet users.

### **Student Materials (continued)**

- *ControlNet and RSNetWorx Troubleshooting Guide*, which contains easy-to-use flowcharts and graphics to help students complete the troubleshooting tasks presented in class. The guide covers troubleshooting ControlNet devices using hardware status indicators, software diagnostics, and signal measurement equipment and also covers most troubleshooting situations in the plant environment

### **Hands-On Practice**

Hands-on practice is an integral part of learning and this course offers extensive hands-on opportunities. Using network software and a workstation containing real and simulated hardware components, students will practice isolating network malfunctions, reading diagnostics, and correcting configuration errors. This experience can then be directly applied to the students' ControlNet applications.

### **Next Learning Level**

Once students have mastered the skills covered in this course, they can expand their ControlNet knowledge by attending other Rockwell Automation training courses. One such course is the *ControlNet and RSNetWorx Design and Configuration* (CCP170) course, which covers the configuration of ControlNet networks.

### **Course Length**

This is a two-day course.

### **Course Number**

The course number is CCP172.

### **IACET CEUs**

CEUs Awarded: 1.4



### **To Register**

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at <http://www.rockwellautomation.com/training>

**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

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