

ControlNet Network Communication

Course Description

This course provides you with the skills necessary to efficiently design and configure a ControlNet network. You will gain these skills from the ground up, practicing each step in the design and configure process from choosing the correct cable to configuring the connections that will transmit data from ControlLogix® (Logix5000™) controllers and other devices across that cable.

This course also provides you with the skills needed to return a malfunctioning network safely and efficiently to normal operation, including:

- Implementing a logical process for troubleshooting ControlNet and RSNetWorx™ components
- Identifying problems with communications cards, cabling, and other network hardware
- Applying best practices and network troubleshooting tools

You will practice each step in the network troubleshooting process from verifying the media system to correcting connection configuration errors.

After completing this course, you will have designed a ControlNet and RSNetWorx media system that will serve as the backbone of your network and will have configured ControlNet and RSNetWorx-capable hardware to behave as a deterministic and repeatable control network. You will also have hands-on experience troubleshooting a ControlNet and RSNetWorx network that can immediately be applied to your job responsibilities.

Pre-requisites:

To successfully complete this course, the following prerequisites are required:

- An ability to perform basic Microsoft Windows tasks.
- Experience with Windows-based Logix 5000 system programming software is desirable.

Course Duration:

2 days, 7hours/day (from 9:00am to 4:00 pm).

Technical Contents:

- ControlNet network overview.
- Configuring an Offline ControlNet Network
- Going Online to a ControlNet Network
- Entering Scheduled ControlNet, I/O Data Connections for Logix5000 Controllers
- Entering Scheduled ControlNet produced/consumed tags Data Connections for Logix5000 Controllers.
- Entering ControlNet Messages for Logix5000 Controllers
- Integrated Practice: Configuring a ControlNet Network
- Getting Started with Troubleshooting a ControlNet Network
- Troubleshooting a ControlNet Media System
- Isolating Faulty ControlNet Media Using Signal Measurement Equipment
- Isolating ControlNet Network Malfunctions Using LEDs and Mnemonic Displays
- Connecting to a ControlNet Network Using RSLinx Software
- Identifying a ControlNet Network Malfunction Using RSLinx Software
- Troubleshooting a Network Using RSNetWorx for ControlNet Software
- Troubleshooting a Scheduled ControlNet Data Connection for Logix5000 Controllers