

# COURSE DESCRIPTION

## EtherNet/IP™ Networks

### EtherNet/IP™ Design and Configuration

#### COURSE AGENDA

##### *Day 1*

- Designing an EtherNet/IP Cable System
- Optimizing an EtherNet/IP Network
- Pinging a Module's EtherNet/IP Address
- Configuring and Modifying EtherNet/IP Addresses Using BOOTP-DHCP Server® Software
- Configuring and Modifying EtherNet/IP Addresses Using RSLinx® Software

##### *Day 2*

- Configuring and Modifying EtherNet/IP Addresses Using RSLogix™ 5000 Software
- Establishing EtherNet/IP Connections to Remote Devices
- Producing and Consuming Data over an Ethernet/IP Network
- Communicating between Multiple Controllers on an Ethernet/IP Network Using a Message Instruction
- Configuring the 9300-8EDM Ethernet Diagnostic Module



**COURSE NUMBER: CCP174**

#### *Course Purpose*

This course prepares you to successfully design and configure an efficient EtherNet/IP (Industrial Protocol) network by managing both the bandwidth requirements for a project and the number of connections on the network. The course focuses on integrating Logix5000™ controllers and EtherNet/IP modules in the design and configuration of an EtherNet/IP network for optimal performance.

You will configure the 9300-8EDM Ethernet diagnostic module for viewing and controlling network traffic, restricting traffic overload, and protecting against unauthorized device access. You will also modify Logix5000 projects to use an EtherNet/IP network as the communications link between a Logix5000 controller and the local and remote digital and analog devices it controls.

#### *Who Should Attend*

Individuals responsible for designing and configuring a new EtherNet/IP network or managing and modifying an existing EtherNet/IP network should attend this course. This course is not intended for individuals who want to maintain and troubleshoot an existing EtherNet/IP network.

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## EtherNet/IP™ Networks

### **Prerequisites**

To successfully complete this course, students must be able to perform basic Microsoft® Windows tasks such as using a mouse, opening and saving files, and moving windows.

Students should also have successfully completed one or more of the following courses (or demonstrate equivalent experience):

- *RSLogix™ 5000 Level 2: Basic Ladder Logic Programming* (CCP151)
- *RSLogix 5000 Level 3: Project Development* (CCP143)

### **Student Materials**

To enhance and facilitate your 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 several hands-on exercises.
- *EtherNet/IP Procedures Guide*, which provides all of the steps required to complete task common to designing and configuring devices to communicate over an EtherNet/IP network. By following the procedures in this job aid, students can immediately apply what is learned in the course to their own job.
- *EtherNet/IP Documentation Reference Guide*, which contains several relevant technical publications. This searchable, electronic resource contains the most frequently referenced information and is a quick and efficient on-the-job resource.

### **Hands-On Practice**

Hands-on practice is a necessary part of learning and this course offers hands-on opportunities to configure a project that will optimize network communications. Students will design a cable system in accordance with established EtherNet/IP requirements that support fictional application requirements. Students will assign IP and gateway addresses and subnet masks, configure a controller and local and remote I/O devices for messaging and control, and optimize network performance.

### **Hands-On Practice (Continued)**

Students will have the opportunity to practice the skills presented in class using the following Rockwell Automation products:

- 1756 ControlLogix® controller, EtherNet/IP and digital I/O modules
- 1769 CompactLogix™ controller, EtherNet/IP and digital I/O modules
- 1794 FlexLogix™ EtherNet/IP adapter and analog module
- 9300-8EDM Ethernet Diagnostic Module
- PanelView™ Plus 600 terminal

### **Next Learning Level**

Once students have mastered the skills covered in this course, they will have the knowledge and skills necessary to attend the next level of Networks training. In particular, this course will benefit those students enrolling in the *Data Highway/Ethernet Peer-to-Peer Communications* course (Course No. CCP310-LD).

### **Course Length**

This is a two-day course.

### **Course Number**

The course number is CCP174.

### **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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