

Networks

EtherNet/IP Configuration and Troubleshooting



Course Number

CCP183

Course Purpose

This course should prepare you to effectively:

- Configure a Stratix® switch (5700, 8000, and/or 8300) to meet a variety of network requirements
- Assign IP addresses to devices on an EtherNet/IP network using rotary switches and a variety of software
- Monitor switch performance and status
- Diagnose and resolve issues with switches and devices on a network

During switch configuration, you will have an opportunity to:

- Configure a switch using both the Device Manager Web Interface and Studio 5000 Logix Designer® software
- Set up one-to-one IP address translation (NAT) for segmenting machine-level network devices from the plant network
- Secure and limit access to a switch

Once the EtherNet/IP network is up and running, you will monitor diagnostic information using web-based technologies and modify a web server module's data views and tag values.

You will resolve issues with communication between devices on a network. You will troubleshoot an EtherNet/IP network's media and components (including the Stratix 5700 switch); run diagnostic tests to resolve system and port issues; and perform common functions such as resetting the switch.

COURSE AGENDA

DAY 1

- Assigning a Computer's IP Address
- Pinging a Device's IP Address
- Assigning IP Addresses Using RSLinx Classic Software and Rotary Switches
- Assigning IP Addresses Using BOOTP/DHCP Server Software
- Configuring Stratix 5700 Switch Settings Using the Express Setup
- Creating and Assigning VLANs

DAY 2

- Configuring DHCP Persistence
- Configuring Network Address Translation (NAT)
- Configuring Port Security and Traffic Monitoring
- Monitoring Stratix 5700 Switch Status and Performance
- Managing a Stratix 5700 Switch Using a Studio 5000 Logix Designer Project

DAY 3

- Isolating EtherNet/IP Network Problems
- Diagnosing Problems with EtherNet/IP Modules
- Diagnosing Problems with EtherNet/IP Network Components
- Monitoring an EtherNet/IP Network Using Web-Enabled Technologies
- Troubleshooting a Stratix 5700 Switch
- Updating Stratix 5700 Switch Firmware

WHO SHOULD ATTEND

Technicians and engineers who must deploy and maintain Industrial Automation and Control System (IACS) networks should attend this course.

PREREQUISITES

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

- Completion of the *Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals* course (CCP146) or equivalent experience, such as downloading project files to a ControlLogix controller

STUDENT MATERIALS

To enhance and facilitate the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
 - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
 - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback
- EtherNet/IP Procedures Guide:
 - Provides the steps required to complete tasks common to configuring Stratix® switches and other devices for communication over an EtherNet/IP network

HANDS-ON PRACTICE

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises using an ABT-TDENET5700 EtherNet/IP workstation and Stratix 8000 switch. Exercises focus on the skills introduced in each lesson.

COURSE LENGTH

This is a three-day course.

IACET CEUS

Rockwell Automation is authorized by IACET to offer 2.1 CEUs for this program.







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.

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To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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