

Networking I

Automated Logic Training Course Description



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AutomatedLogic

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Course Overview

This course covers setup and troubleshooting techniques affiliated with basic Automated Logic networks. In addition, students will build source trees, define, and identify the fundamentals of IP, ARC156, and MS/TP networks, and gain an understanding of how these concepts allow devices to communicate. Students will also learn the basics of Wireshark captures, clippings, and BACnet Discovery. Upon successful completion of this course, students will be able to properly set up and troubleshoot basic Automated Logic networks, including gathering Wireshark captures of IP traffic at the server, as well as IP and ARC156 traffic at devices.

If you have little or no experience with ARC156, MS/TP, or IP networks this class is for you. The Networking I course has been developed for individuals that install and configure structured networks with the BACnet protocol.

Traditional Classroom: A live instructor will lead up to 12 students (course dependent) in hands-on exercises with minimal lecture in between. Using the situated learning techniques of the Kirkpatrick Model, this methodology fosters a collaborative learning environment where students are positioned to maximize knowledge retention. This course is a 2-day event.

Instructor-Led eLearning: A live instructor will lead students using video conferencing and remote access software. The student will have remote access to a training station to complete hands-on tasks, giving them a virtual classroom experience from many miles away. This course is hosted in the same 2-day timeframe and manner as the traditional classroom format.

Students must have the following access and hardware requirements:

- Internet access
- Administrative rights on your PC to install Zoom and Connectwise
- Mouse (tablet touch screen or PC touchpad not recommended)
- Audio availability through PC or Phone

To enhance the student experience, we recommend:

- Additional laptop or desktop (one for Zoom Meeting & one for student tasks)
- OR additional monitor attached to your PC
- Printer
- Web Camera

Training Objectives

After successfully completing this course, you will be able to properly setup and trouble shoot ALC networks.

- ARC156, MS/TP, and IP Basics
- Engineering and editing a SiteBuilder network, source, and custom trees
- Gathering network diagnostic captures
- Discover BACnet networks, controllers, and objects

Class Details

Intro – Networking Basics

- Hardware Setup

IP Basics

- Physical Connections
- IP Addressing
- Communication properties in a BACnet Router via Local Access
- Set an IP Address in SiteBuilder
- Command Prompt Commands

ARC156 Basics

- Ancillary Devices
- ARC156 Addressing
- Network Binding Microblocks

MS/TP Basics

- Add a MS/TP network
- Setup the physical layer of an MS/TP network
- Set the Max Masters

SiteBuilder

- Build a Network Tree
- Source Trees
- Custom Source Trees
- Database Integrity
- Download Devices

Captures

- Network Diagnosis of IP, ARCnet, and MS/TP

Reports

- Import Network Info and Dead Modules Reports

BACnet Discovery

- Discover BACnet® networks, devices & objects

Class Requirements

To receive a certificate for this course student must be present for the entire course, complete all workshops and receive a grade of 70% on graded final.

Prerequisite requirements

- None