GE
Intelligent Platforms

Part #: 44A728312-257

Series 90-30 Programming with VersaPro, Part 1

Course Description

The **Series 90-30 Programming with VersaPro Part 1** course provides the fundamental tools for a new programmer to organize and implement a 90-30 program using VersaPro software. It provides an experienced instructor and a course that will guide the student by demonstrations and hands on lab exercises to develop programs based on real world applications.

Who Should Attend?

Personnel responsible for the development, maintenance, and modification of Ladder Diagram control programs for the Series 90-30 and 90 Micro PLCs. System specifiers and maintenance personnel who need to understand the Series 90-30 System and VersaPro

Are There Any Prerequisites?

To obtain the maximum benefit from this course, the participant should have a working knowledge of PLC based machine or process control. A basic understanding of ladder logic or a control programming language is a plus. As VersaPro will be run on Windows in this class; familiarity with a GUI (Graphical User Interface) windows-based operating system and use of a mouse as a pointing device is necessary.

What Tasks Will Be Taught in This Class?

Upon completion of this Course, the student will be able to:

- Describe the components and functional operation of a PLC.
- Demonstrate the use of VersaPro software and understand Series 90-30 hardware installation.
- Configure the power supply, CPU, input/output modules, and optional modules into the Series 90-30 system.
- Operate and apply the Series 90-30 instruction set, consisting of Timers and Counters, Math, Relation, Convert Operations, Data Move, Bit Operations, Table Operations and Control Operations.
- Create relay ladder logic program development for the Series 90-30 CPU using VersaPro software.
- Comprehend Basic diagnostic and troubleshooting procedures on a Series 90-30 Programmable Controller.
- Use PLC and I/O Fault Tables as software troubleshooting tools.
- Understand the uses of a Hand Held Programmer for system monitoring.

Course Length

4.5 days

Suggested Class Size

10 students

Class Hours

8:00 am - 5:00 pm, daily

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Course Agenda

(Schedule and content may vary.)

Day 1

Morning:

Overview

Fundamentals of Programmable Controls
Basic functions of a programmable controller.

90-30 Basic System
Basic hardware and scanning operations of the 90-30.

90-30 I/O System
Basic components and functions of the Series 90-30 Input/Output system.

Hand –Held Programmer
Benefits and operation of the hand-held programmer.

Afternoon:

Computer Programmer
Programming tool options.

Series 90-30 Configuration Software Familiarization
Configuring a 90-30 system.

Day 2

Morning:

Series 90-30 Program Software Familiarization
Navigating within the VersaPro programming software.

Afternoon:

Relay Function
Application lab exercise based on a functional specification using relay instructions.

Day 3

Morning:

Timer and Counter Functions
Perform an exercise based on a functional specification using timer and counter instructions.

Afternoon:

Data Operations Group
Perform an exercise based on a functional specification using data operations instructions.

Day 4

Morning:

Data Move Functions
Perform an exercise based on a functional specification using data move instructions.

Afternoon:

Bit Operations Group
Perform an exercise based on a functional specification using bit operations instructions.

Day 5

Morning:

Fault References and Troubleshooting
Use the tools available in the 90-30 system to troubleshoot a faulty program.

Afternoon:

Nothing scheduled