

Series 90-30 Programming w/ Logicmaster 90 Pt 1

Course Description

The **Series 90-30 Programming with Logicmaster 90 Part 1** course provides the fundamental tools for a new programmer to organize and implement a 90-30 program using Logicmaster 90 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?

This course provides the opportunity for an individual who is or will be involved in the programming and, to some degree, troubleshooting of a 90-30 system. The course is designed for electrical technicians, electricians, and programmers new to ladder logic functions who will be tasked with developing programs in the future.

Are There Any Prerequisites?

Participants should have a basic understanding of electrical fundamentals to attend this course.

What Tasks Will Be Taught in This Class?

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

- Describe the Programmable Controller components & the functional operation of a PLC.
- Install Logicmaster 90 software and Series 90-30 hardware.
- Configure the power supply, CPU, input/output modules, and optional modules into the Series 90-30 system.
- Describe the operation and use of the Series 90-30 instruction set, consisting of Timers and Counters, Math, Relation, Convert, Data Move, Bit Operations, Table Operations and Control Operations.
- Develop relay ladder logic programs for the Series 90-30 Central Processing Unit using Logicmaster 90 software.
- Perform basic diagnostic and troubleshooting procedures on a Series 90-30 Programmable Controller.
- Interpret PLC and I/O Fault Tables as software troubleshooting tools.
- Use the 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



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 & 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/operation of the hand-held programmer.

Afternoon

Computer Programmer

Programming tool options.

Series 90-30 Configuration Software

Familiarization

Configure a 90-30 system.

Day 2

Morning

Series 90-30 Program Software

Familiarization

Navigate within the Logicmaster 90 programming software.

Afternoon

Relay Function

Perform an 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 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.

