

PAC8000 IEC Logic Training

Course Description

This class is designed to give students the knowledge necessary to build IEC Logic within the PAC8000 System. Students will work with several IEC programming languages during the class, allowing them to become proficient within the various programming editors. The focus is on programming-centric topics such as variables, structures, functions and function blocks. Programming languages include Structured Text, Instruction List, Ladder Diagram, Sequential Function Charts, Function Block Diagrams, and Flow Charts.



Who Should Attend?

This course is designed for process, automation or instrumentation engineers and system integrators who will be developing, configuring and using applications with PAC8000 solutions.

Are There Any Pre-requisites?

Participants should have a working knowledge of Windows operating systems. Participants should also have some skill and experience with logic programming.

What Tasks Will Be Taught in This Class?

The following topics are covered:

- Interface Overview
- Logic Common Elements
- Structured Text
- Instruction List
- Ladder Diagram
- Sequential Function Chart
- Function Block Diagram
- Flow Chart
- Programming Strategies.

Course Length

2 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:

PAC8000 Discrete Interface Overview

Learn about the structure of the PAC8000 interfaces. This includes an introduction to the Workbench, views, editors, browsers and tools.

Afternoon:

PAC8000 Logic Common Elements

This delves deeper into the system by providing an overview of the core elements common to programming with any of the languages. Variables, mapping points, structures, functions and function blocks are all introduced and explained.

Day 2

Morning:

Structured Text

Structured Text use and syntax are explained. The ST editor is explored and function/function block calls are demonstrated.

Instruction List

Syntax, formatting and instructions are introduced. The IL editor is explored and IL programming is compared to ST programming.

Ladder Diagram

Connections, contacts, and coils are discussed. The language rules and editors are presented for LD programming.

Afternoon:

Sequential Function Charts

This module is an introduction to SFC components, views and branches. Actions, statements and rules are covered. The module also provides an orientation to the SFC editor.

Function Block Diagrams

FBD blocks and variables, connections and statements are explained, as is FBD execution and the FBD editor.

Flow Charts

Basic Components, Complex components, and commands are introduced, and an orientation is provided for the FC editor.

Programming Strategies and Summary

Topics include programming strategies for the languages, advantages of each language, language rules and the programming process.

