COURSE #441

COURSE DESCRIPTION

A hands-on course for programming the ControlWave® product family using IEC-61131-3 standard software and Bristol-supplied functions. This course will provide you the necessary knowledge and skills required to define and control inputs and outputs of related real world applications.

Students will generate and debug simple control strategy programs using Function Block, Ladder Logic, Structured Text, and Sequential Function Chart programming. They will also learn the basics of ControlWave communications, historical data storage, alarming, and hardware configurations, and much more.

COURSE FEATURES

- Understand how the IEC-61131-3, ControlWave Designer and on-line utilities work
- Master the basic skills necessary to create a program for the Bristol ControlWave process controllers
- Learn the Bristol library of function blocks for measurement, calculations, process control, data storage, and alarming
- Understand the basics of the OpenBSI Communications Software

WHO SHOULD ATTEND

• Personnel responsible for programming and debugging in ControlWave Designer

PREREQUISITES

- Participants must have a strong working knowledge of personal computers and Windows 2000/ XP or later versions
- Participants should have a strong working knowledge of their application/process

REGISTRATION

To register for this training course, complete the enrollment application on our website: **www.EmersonProcess.com/Remote**.

For further information for classes in Watertown, Orlando, custom classes, or general training info:

Evelyn Bellefeuille Watertown, CT 1-860-945-2343 or 1-800-395-5497 toll free within the United States



Ensuring customer confidence through knowledge of Bristol[®] and ControlWave[®] products and applications.

COURSE AGENDA

DAY 1

- Hardware Overview
- CPU Switch Settings
- Variable Types
- Understanding Functions, Function Blocks, and programs
- ControlWave File Conventions
- I/O Configuration
- Downloading to a simulator mode
- Ladder Logic and Function Block Programming basics

DAY 2

- Using signal lists Function Block ControlWave File
- Structured Text Programming Basics
- Developing user-created function blocks
- Utilize the ALARM_ANALOG block and several standard functions
- Using OpenBSI software for local communications
- Downloading ControlWave project loads
- Learn the fundamentals of creating arrays and other structures



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COURSE AGENDA CONTINUED

DAY 3

- Developing SCADA Storage System using the AVERAGER, INTEGRATOR, and several other Function blocks
- ALARM_LOGICAL Function Blocks
- Configuring ControlWave Flash memory parameters

DAY 4

- Implementing more data storage using the archive and audit blocks
- Creating modifiable lists
- Creating user defined data lists
- Demonstration and explanations of the Sequential Function Chart language

DAY 5

- Using the advanced features of Debug
- Watch window
- Step mode
- Troubleshooting Hardware and Software



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