

Remote Automation Solutions, ROC & FloBoss

Training for engineers and technicians using these flexible devices, which are widely used by natural gas production, pipeline, and distribution companies to measure and control gas flow, is scheduled regularly at regional training centers, and available elsewhere upon request.

FloBoss Configuration and Operations

Course RA1220 CEUs: 3.2

This Remote Automation Solutions course is for engineers, technicians, and others involved with the configuration and operation of the FloBoss 103 and FloBoss 107 products.

Overview

This 4-1/2 day course will provide an overall working knowledge of the FloBoss 103, and FloBoss 107. Participants are presented with a comprehensive view of the FloBoss 103/107 hardware and ROCLINK800 software to obtain the necessary knowledge needed to effectively install, configure and operate the FloBoss 103/107 products. Each participant will be provided with a PC (ROCLINK800 preinstalled), a FloBoss 107RTU, communication cables, and a workbook for the duration of the course. However, participants are encouraged to bring their laptop to class.

Prerequisites

Participants should have a working knowledge of their application/process and should also have advanced PC knowledge and be thoroughly familiar with Microsoft Windows operating systems (XP or later versions).

Topics

- Flow Measurement Review
- FloBoss 103/107 Hardware Overview
- FloBoss
 - Check and Set ROC Information
 - Check and Set ROC System Flags
 - Communication Basics
 - Elements of a Basic Configuration
 - Configuring I/O Points
 - Calibrating AI and AO Points
 - Overview of MVS Products
 - Setup of Multi-dropping of MVS
 - Configuring AGA Flow Calculations
 - Configuring FloBoss History
 - Modbus Tables
 - PID Configuration
 - Building FloBoss Displays
 - FST Workshop

To arrange for training please call:
800-395-5497

ROC800 Series Configuration and Operations

Course RA1240/V CEUs: 3.2



This Remote Automation Solutions course is for engineers, technicians, and others involved with the operation and maintenance of the ROC800 Series products.

Overview

This 4-1/2 day course will provide an overall working knowledge of the ROC800 series RTU. Participants are presented with a comprehensive view of the ROC800 series hardware and ROCLINK800 software to obtain the necessary knowledge needed to effectively install, configure, and operate the ROC800 series products. Each participant will be provided (ROCLINK800 preinstalled), a Remote Automation Solutions RTU, a communication cable, and a workbook for the duration of the course. However, participants are encouraged to bring their laptop to class.

Prerequisites

Participants should have a working knowledge of their application/process and should be thoroughly familiar with Microsoft Windows operating systems (XP or later versions).

Topics

- Flow Measurement Review
- ROC800 Series Hardware Overview
 - Introduction to ROCLINK800 Software
 - ROC800 Series Configuration
 - Check and Set ROC Information
 - Check and Set ROC System Flags
 - Communication Basics
 - Elements of a Basic Configuration
 - Configuring I/O Points
 - Calibrating AI and AO Points
 - Overview of MVS Products
 - Setup of Multi-dropping of MVS
 - Configuring AGA Flow Calculations
 - Configuring ROC History
 - Modbus Tables
 - PID Configuration
 - Building ROC Displays
 - FST Workshop

To arrange for training please call:
800-395-5497

DS800 for ROC800 Series

Course RA1241/V CEUs: 1.8



This Remote Automation Solutions course is for engineers, technicians, and others involved with configuring the ROC800 series products.

Overview

This 2-1/2 day course will provide an overall working knowledge of the five different programming languages for the ROC800 series. The course emphasizes hands-on exercises using the DS800 Development Suite to program the ROC800 series products. Each participant will be provided with a PC (ROCLINK800 & DS800 preinstalled), a Remote Automation Solutions RTU, a communication cable, and a workbook for the duration of the course. However, participants are encouraged to bring their laptop to class.

Prerequisites

Participants should have experience with ROC800 series hardware and ROCLINK800 software. A working knowledge of their application/process and should be thoroughly familiar with Microsoft Windows operating systems (XP or later versions).

Topics

- DS800 Software Overview
 - Sequential Function Chart
 - Ladder Logic of Ladder Diagram
 - Function Block Diagram
 - Structured Text
 - Instruction List
- ROCLINK 800 Software

To arrange for training please call:
800-395-5497

DL8000 Preset System Configuration

Course RA1242 CEUs: 2.1

This Remote Automation Solutions course is for engineers, technicians, and others involved with the configuration and the operation of the DL8000 Preset product.

Overview

This 2-1/2 day course will provide an overall working knowledge of the DL8000 Preset.

Participants will be able to configure and operate the DL8000 Preset. Each participant will be provided with a PC (ROCLINK800 preinstalled), a Remote Automation Solutions DL8000 RTU, a communication cable, and a workbook for the duration of the course. However, participants are encouraged to bring their laptop to class.

Prerequisites

Participants should have formal RTU training, preferably with ROC800 series products, ROCLINK800 software, and a working knowledge of their application/process. Participants should have advanced PC knowledge and be thoroughly familiar with Microsoft Windows operating systems (XP or later versions).

Topics

- Basic Concepts and Product Features of the DL8000
- Set Up Parameters Meter Proving
- Hardware Diagnostics and Troubleshooting
- DL8000 Configuring Dynamic, Real-Time
- Display of Flow Parameters
- Configuring for Additive Injection
 - Temperature Compensation
 - Data Logging
 - Communications
- Blending Methods and Flow Sequencing

To arrange for training please call:
800-395-5497

ROC800L Configuration

Course RA1244/V CEUs: 1.8



This Remote Automation Solutions course is for engineers, technicians, and others involved with the operation and maintenance of the ROC800L.

Overview

This 2-1/2 day course will provide an overall working knowledge of the ROC800L. Participants will be able to configure and operate the ROC800L. Each participant will be provided with a PC (ROCLINK800 preinstalled), a Remote Automation Solutions ROC800L RTU, a communication cable, and a workbook for the duration of the course. However, participants are encouraged to bring their laptop to class.

Prerequisites

Participants should have formal RTU training, preferably with ROC800 series products, ROCLINK800 software, and a working knowledge of their application/ process. Participants should have advanced PC knowledge and be thoroughly familiar with Microsoft Windows operating systems (XP or later versions).

Topics

- Basic Concepts and Product Features
- Configure and Operate a ROC800L RTU
- Configuring an Application
- Convert a ROC800 to a ROC800L
- Updating Firmware and Software

To arrange for training please call:
800-395-5497



For RAS training information please refer to the appropriate contact on page 118.
For regional training center contacts refer to pages 116-117.
Visit: www.emersonprocess.com/education for current dates, locations and enrollments.

Remote Automation Solutions, ControlWave

Emerson Process Management, the leading global supplier of flow computers, SCADA RTUs and presets, is the single source for all your needs from field equipment to the business system. We provide the industry-specific expertise and training in oil and gas, water and wastewater, along with best-in-class products to help you achieve peak financial performance and long-term sustainability.

ControlWave® Configuration

Course RA331 CEUs: 1.8

Field personnel whose responsibilities may include: installation, wiring, start-up, troubleshooting, configuration, or maintenance of the ControlWave products.

An individual who seeks a more thorough understanding of the ControlWave products

Overview

This 2-1/2 day hands-on course covers the hardware, configuration and maintenance of the ControlWave product family.

This course will equip you with the necessary knowledge and practice needed to configure the ControlWave hardware for communications. Learn how to troubleshoot and utilize software application programs to perform diagnostics and monitor live data and communication statistics.

Prerequisites

- Participants should have formal instrument technician training and a knowledge of their application/process
- Participants must be thoroughly familiar with Windows XP or later versions

Topics

- Overview of ControlWave Hardware
- Overview of OpenBSI Software Utilities
- Basic Troubleshooting
- Basic ControlWave Configuration

To arrange for training please call:
800-395-5497

ControlWave® Designer Programming Short Course

Course RA440/V CEUs: 1.8



A hands-on course that will give you as much exposure to ControlWave programming as possible in the shortest amount of time.

Overview

The ControlWave Designer short 2-1/2 day course provides the knowledge and skill required to define and control inputs and outputs of related real world applications, including basic communications and troubleshooting. The class project will help students generate and debug simple control strategy programs using Function Block, Ladder Logic, and Structured Text programming languages, including programming for Modbus communications

Prerequisites

- Participants must have a strong working knowledge of personal computers and Windows XP or a later version
- Participants should have a strong working knowledge of their application/process
- Participants should have programming experience (this course is not recommended for beginning programmers)

Topics

- Understand How IEC-61131-3, ControlWave Designer and On-Line Utilities Work
- Master Skills Necessary to Create a Program for ControlWave Controllers
- Learn the Bristol Library of Function Blocks for Measurement, Calculations, Process Control, Data Storage
- Understand OpenBSI Communications Software
- Master How to Establish Ethernet/IP Communications using ControlWave Designer
- Learn to Program Polling and Data Transfers in BSAP and an I/O Environment
- Understand How to Define a Hierarchical Network of ControlWave Controllers using NetView
- Understand the Configuration of Communication via other Protocols such as Modbus

To arrange for training please call:
800-395-5497

ControlWave® Designer Fundamentals

Course RA441/V CEUs: 3.2



Personnel responsible for programming and debugging in ControlWave Designer programming software.

Overview

This 4-1/2 day hands-on course for programming the ControlWave product family using the ControlWave Designer IEC61131-3 software and the Designer function block library. This course will provide the participant the necessary knowledge and skills required to define and control inputs and outputs of related real world applications. Participants 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, hardware configurations and much more.

Prerequisites

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

Topics

- Ladder Logic
- Structured Text
- Function Block Diagram
- Creating User Function Blocks

To arrange for training please call:
800-395-5497

ControlWave® Designer Communications Programming

Course RA442 CEUs: 3.2

Personnel responsible for the establishing of communication interfaces to ControlWave Automation products

Overview

This 4-1/2 day course is a continuation of ControlWave Designer Fundamentals, this course focuses on networking and communications. Participants will program the ControlWave to communicate to other devices in a network, as well as transfer and receive signal lists using serial and IP communications. Other application software will be utilized to configure, establish, and debug communications with these devices. Participants will learn the advanced methods of communicating to Bristol and ControlWave devices using Client/Server modules, and to Modbus protocol devices using custom function blocks.

Prerequisites

- Successful completion of course RA441, ControlWave Designer Fundamentals
- Participants must have a strong working knowledge of personal computers and Windows XP or later version
- Participants should have a strong working knowledge of their application/process

Topics

- Client/Server Function Blocks
- Modbus Programming
- System Communication Variables
- BSAP Network Communications

To arrange for training please call:
800-395-5497

ControlWave® Gas Measurement Products

Course RA445 CEUs: 1.8

Personnel responsible for the installation, wiring, start-up, configuration and maintenance of ControlWave gas flow computers

Overview

The ControlWave Gas Measurement 2-1/2 day course provides participants with a thorough understanding of configuring the ControlWave® GFC, EFM, and XFC Flow Computers for single or multiple-run gas measurement.

As a hands-on course, students will use TechView to collect historical logs, calibrate internal and external pressure sensors, and gain troubleshooting techniques for real world applications.

Prerequisites

- The following are suggested, not mandatory:
- Participants should have a working knowledge of their application/process
 - Participants should be familiar with Windows XP or later versions and possess a general knowledge of gas measurement

Topics

- Hardware Configuration
- TechView Software Overview
- Log Collection
- Troubleshooting
- Configuring 4-Run Gas Application

To arrange for training please call:
800-395-5497

ControlWave® Station Manager Configuration

Course RA447 CEUs: 1.8

Personnel responsible for the installation, wiring, start-up, configuration and maintenance of ControlWave Micro gas flow computers

Overview

The Gas Measurement Applications for technicians 2-1/2 day course provides participants with a thorough understanding of configuration of the Station Manager application for the ControlWave Micro.

Participants will use TechView to configure the ControlWave Micro application to establish multiple gas measurement and control scenarios, historical log collections, calibrations, and much more.

Prerequisites

- The following are suggested, not mandatory:
- Participants should have a working knowledge of their application/process
 - Participants should be familiar with Windows XP or later versions and possess a general knowledge of gas measurement and production

Topics

- Hardware Overview
- Writing/Saving Configurations
- I/O Controls
- MVT Calibration
- Station Configuration

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800-395-5497

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OpenEnterprise for SCADA Systems – Basics Ver. 2.8x

Course RA701 CEUs: 3.2

The class is intended for users who have experience with programming and configuration of Remote Automation Solutions RTUs.

Overview

This 4-1/2 day course provides a very brief introduction to the OpenEnterprise Server, and more detailed coverage of the OpenEnterprise Workstation and OpenEnterprise Reporting packages (version 2.8x).

At the conclusion of the course, students will be able to install a very simple OpenEnterprise Server and Workstation; configure communications with ControlWaves RTU's and then begin building HMI displays, trends, alarm windows, and develop a basic user interface using these products.

Prerequisites

- Participants must have a strong working knowledge of personal computers and Windows XP or a later version
- Participants must have a strong working knowledge of their application/ process
- Participants should have a strong working knowledge of OpenBSI and ControlWave Designer

Topics

- Database Explorer and Structure
- Creating Display Objects
- Alarm Windows, Alarm & Event History
- Creating and Configuring Trends
- Data Export
- Creating Reports
- System Troubleshooting

To arrange for training please call:
800-395-5497

OpenEnterprise for SCADA Systems – Intermediate Ver. 2.8x

Course RA702 CEUs: 3.2

This class is intended for engineers who will be designing and building complete OpenEnterprise systems.

Overview

This 4-1/2 day course will equip you to be able to install an OpenEnterprise Server and Workstation; configure the communications, security, historical, alarming, messaging and other major subsystems. Most of the tools within the OpenEnterprise toolbox will be covered during this class.

Prerequisites

- Participants should have formal RTU configuration training and a working knowledge of their application/process
- Participants must be thoroughly familiar with Windows XP or later versions
- Participants should have advanced PC and networking skills
- Participants must have completed the Basic OpenEnterprise Class course RA701

Topics

- Learn Advanced Configurations of the OpenEnterprise Systems
- Perform Alarming and Messaging Configurations
- Learn to Configure, Diagnose and Troubleshoot OpenEnterprise Systems
- Creating Calculations from RTU Data

To arrange for training please call:
800-395-5497

OpenEnterprise for SCADA Systems – Accelerated Ver. 2.8x

Course RA703 CEUs: 3.2

The class is intended for users who will install, configure and design a basic OpenEnterprise SCADA system.

Overview

This 4-1/2 day course provides an accelerated approach to learning about the OpenEnterprise Ver. 2.8x SCADA System. At the conclusion of the class, students will be able to install a very simple OpenEnterprise Server and Workstation, configure communications with Remote Automation Solutions' RTU's, build basic HMI displays, configure trends and alarm windows, collect historical data, perform basic SQL queries, and develop a basic user interface using these products.

Prerequisites

- Participants must have a strong working knowledge of personal computers and Windows XP or a later version
- Participants must have a strong working knowledge of their application/process
- Participants should have a strong working knowledge of OpenBSI and ControlWave Designer and ROC Configuration

Topics

- Basic Concepts
- Product Architecture
- Database Explorer
- Database Structure
- Display Building
- Aliasing
- History
- SQL Queries
- OE Desktop
- Alarm Priorities
- Security

To arrange for training please call:
800-395-5497

OpenEnterprise for SCADA Systems Basic -Ver. 3.x

Course RA801/V CEUs: 3.2 

The course is intended for users who have experience with programming and configuration of Remote Automation Solutions RTUs.

Overview

This 4-1/2 day course provides a very brief introduction to the OpenEnterprise Server, and more detailed coverage of the OpenEnterprise Workstation and OpenEnterprise Reporting packages (version 3.x). At the conclusion of the class, participants will be able to install a simple OE Server and Workstation, configure communications with Remote Automation Solution's RTU's and then begin building HMI displays, trends, alarm windows, and develop a basic user interface using these products.

Prerequisites

- Participants must have a strong working knowledge of personal computers and Windows 7
- Participants must have a strong working knowledge of their application/process
- Participants should have a strong working knowledge of Remote Automation Solutions RTUs

Topics

- Database Structure
- Creating Display Objects
- Alarm Windows, Alarm & Event History
- Creating and Configuring Trends
- Data Export
- Creating Reports
- Calculation Server
- Communications Manager
- Data Collection
- Plant Area Grouping

To arrange for training please call:
800-395-5497

OpenEnterprise for SCADA Systems Intermediate - Ver. 3.x

Course RA802/V CEUs: 3.2 

The course is intended for users who have experience with programming and configuration of Remote Automation Solutions RTUs.

Overview

This 4-1/2 day course will equip the participant to be able to; configure the communications, security, historical, alarming, asset modeling and other major subsystems of an OpenEnterprise and workstation (version 3.x). Most of the tools within the OpenEnterprise Administrative Tools will be covered during this course.

Prerequisites

- Participants should have formal RTU configuration training and a working knowledge of their application/process
- Participants must be thoroughly familiar with Windows 7
- Participants should have advanced PC and networking skills
- Participants must have completed course RA801 Basic OpenEnterprise Course vers. 3.x

Topics

- Configure Security
- Historical Collections
- Alarming
- Asset Modeling
- Work Flows
- Local Signals and Alarms
- Administrative Tools

To arrange for training please call:
800-395-5497

OpenEnterprise Enhancements for SCADA Systems – Ver. 3.x

Course RA850/V CEUs: 1.8 

This class is intended for engineers who have OpenEnterprise systems, version 2.8x transitioning to version 3.x.

Overview

This 2-1/2 day hands-on course addresses the new subsystems and improvements which were added to the previous 2.8x OpenEnterprise Server system. These enhancements are on a Windows 7 platform and will enable you to install an OpenEnterprise Server/Workstation and configure and perform various Server/Workstation functions. These functions include the ease of adding devices to the system, configuring database calculations, work flows, asset modeling, communicating to Modbus devices and more.

Prerequisites

- Participants should have formal RTU configuration training and a working knowledge of their application/process
- Participants must be thoroughly familiar with Windows 7
- Participants should have advanced PC and networking skills
- Participants must have completed course RA701 Basic and RA702 Intermediate Courses version 2.8x.

Topics

- Calculations
- Work Flows
- Administrative Tools
- MODBUS Data Collection
- Database Asset Modeling

To arrange for training please call:
800-395-5497

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FloBoss S600+ Operator

Course RA900/V CEUs: 1.4



The FloBoss S600+ Fundamentals course provides an overview into the hardware and operational aspects of the FloBoss S600+ flow computer.

Overview

The 2-day FloBoss S600+ Fundamentals course will have participants become familiar with the FloBoss S600+ hardware, the start up menu, fundamental features of the S600+ applications. Be able to operate FloBoss S600+ front panel and web-server. Be able to download and upload configurations. Be able to edit S600+ configuration files using PC Setup, Report Editor, Modbus Editor and Display Editor.

Prerequisites

- Participants should be familiar with metering techniques and standards
- Participants should bring their own laptop computers to the course and should preferably have administrator privileges
- Participants must be PC literate

Topics

- Introduction to S600+
- Standard Application Overview
- S600+ Hardware Overview
- Navigating Displays
- Editing Display Items
- Editing Configurations with Config600
- Using Config600 Transfer

To arrange for training please call:
800-395-5497

Config S600+ Pro FloBoss S600+ Advanced - Config600

Course RA901 CEUs: 3.2

The FloBoss S600+ Advanced Course is aimed at application engineers and system integrators who design and develop FloBoss S600+ applications for integration with metering systems and skids.

Overview

The 2-1/2 day advanced course provides an insight into the generation of application configurations for the FloBoss S600+.

Prerequisites

- Participants should be familiar with metering techniques and standards
- Participants should bring their own personal computer to the course and should and should have administrative privileges
- Participants must be PC literate
- Participants must have attended the RA900 fundamentals course

Topics

- Loading Config600 Pro Software License
- Firmware Versions
- Using System Editor Object Types
- Logical cEditor
- Registering Tickets - Do's and Don'ts

To arrange for training please call:
800-395-5497

FloBoss S600+ Combined - Config600

Course RA902 CEUs: 3.2

The FloBoss S600+ Combined Course is a combination of both the fundamentals course and advanced course in one.

Overview

The 4-1/2 day course will provide participants hardware knowledge of the S600+. How to navigate the keypad display and be able to create and edit S600+ configurations using Config600 software.

Prerequisites

- Participants should be familiar with metering techniques and standards
- Participants should bring their own personal computer to the course and should and should have administrative privileges
- Participants must be PC literate

Topics

- Standard Application Overview S600+
- Hardware Overview Navigating Displays
- Editing Display Items
- Editing Configurations with Config600 Using Config600 Transfer
- Loading Config600 Pro Software License
- Firmware Versions
- Using System Editor Object Types
- Logical cEditor
- Registering Tickets - Do's and Don'ts

To arrange for training please call:
800-395-5497