# IN-PERSON WORKSHOPS AND COURSES



#### **TRAINING CLASSES**

#### MACHINE EDITION QUICKSTART (ME101)

#### MACHINE EDITION CONTROLLER MAINTENANCE (7700)

MACHINE EDITIION CONTROLLER PROGRAMMING (7701)







**IN-PERSON WORKSHOPS AND COURSES** 

We invite you to attend one of our Instructor Led In-Person Training Courses. These courses use lecture and hands-on workshops to teach students to properly install, configure, program, troubleshoot, and maintain a variety of products.

### PAC Machine Edition Controller Maintenance QuickStart / Refresher (101)

#### Machine Edition QuickStart - Course Description & Who Should Attend

The Machine Edition QuickStart is designed to provide attendees with a basic introduction to PAC Machine Edition and an update on latest features. QuickStart is designed for electricians, electrical technicians, automation technicians, and/or engineers beginning to work with Logic Developer PLC. Attendees may be familiar with other platforms and need basic understanding of Machine Edition or may have attended previous classes and need a refresher. This is NOT an introduction to controllers class.

### Machine Edition QuickStart / Refresher (101) -Topics

- New Features in Machine Edition
- Basic Machine Edition Windows & Functions
- Project & Target Basics
- Getting Online with PACSystems
  Controllers
- Controller & Project Equality

- Monitor a running Controller
- Using the PACSAnalyzer
- Faults Recording & Clearing
- Forces Creating, Finding, Clearing
- Basic Search within PAC Machine Edition

#### **IN-PERSON WORKSHOPS AND COURSES**

#### Machine Edition QuickStart / Refresher (101) - Prerequisites

Participants should be comfortable operating in a Microsoft Windows environment and have a basic understanding of electrical/control fundamentals.

#### Machine Edition QuickStart / Refresher (101) - Training Details

- Price: \$500 per seat
- Duration: 4 hours
- Students will be provided a laptop with Machine Edition and their own or a shared Rx3i Training Simulator (real hardware)

### **PACSystems Controller Maintenance (7700)**

#### **Controller Maintenance - Course Description**

The Controller Maintenance course is designed to provide the student with the skills necessary to maintain, modify, and troubleshoot Emerson Controllers using PAC Machine Edition.

#### **Controller Maintenance - Who Should Attend?**

Controller Maintenance is designed for electrical technicians, electricians, and/or engineers beginning to work with Logic Developer PLC. This course is intended for those who are or will be involved in the troubleshooting, maintenance, or modification of existing control systems using PAC Machine Edition for PACSystems Controllers (Rx3i, Rx3i Rackless, RSTi-EP, RSTi-EP Standalone). Emphasis will be on reading existing logic and hardware configurations, reading and clearing faults, and using forces withing the controller.

#### **IN-PERSON WORKSHOPS AND COURSES**

#### **Controller Maintenance - Prerequisites**

Participants should be comfortable operating in a Microsoft Windows environment. Participants should have a basic understanding of electrical/control fundamentals.

#### **Controller Maintenance Topics**

- Control System Fundamentals
- Controller Hardware Overview
- Operating PAC Machine Edition
- Understanding Hardware Configuration
- Working with Controllers
- Working with Variables
- Introduction to Ladder Diagram (LD) Programming

- Monitor Application Variables
- Monitor Controller Without Original Project
- Modify Existing Program
- Controller Equality Status
- Manage Controller Forces
- Controller and IO Faults
- Application Troubleshooting

#### **Controller Maintenance - Training Details**

- Price: \$2100.00 per seat
- Duration: 2.5 Days
- Students will be provided a laptop with Machine Edition and their own or a shared Rx3i Training Simulator (real hardware)

## **Televant**.

**IN-PERSON WORKSHOPS AND COURSES** 

### PACSystems Controller Programming - Logic Developer (7701)

#### **Controller Programming - Course Description**

Learn programming for Emerson Controllers in this PAC Machine Edition class featuring the PACSystems RX3i Controller. This class covers programming techniques and the advanced features of the PACSystems Controller using Logic Developer PLC PAC Machine Edition software. Starting with the controller software architecture, students are taught how to effectively develop control applications using building block concepts. This course builds upon Object-Oriented concepts with PACSystems User-Defined Function Blocks (UDFBs), as well as the development of application components using Ladder Diagram (LD), Function Block Diagram (FBD) and Structured Text (ST) programming languages

#### **Controller Programming - Who Should Attend?**

Participants should be comfortable operating in a Microsoft Windows environment. Participants should have a basic understanding of electrical/control fundamentals. Completing Controller Maintenance would be helpful but NOT required.

**IN-PERSON WORKSHOPS AND COURSES** 

#### **Controller Programming - Topics**

- Describe Control System Architecture & Operational Fundamentals
- Operate PAC Machine Edition
- Establish and Utilize Communications to the Controller
- · Configure a Controller and its Associated Hardware Modules
- Effectively Use and Create Controller Variables
- Create Projects in Ladder Diagram (LD), Function Block Diagram (FBD), and Structured Text (ST)
- Understand and Program Contacts & Coils, Counter, Timers, Math and Relational
  Operations
- Utilize Programming Guidelines for Developing Robust Control Applications
- Use User Defined Function Blocks (UDFBs) to Build Structured Applications
- Effectively Use the Machine Edition Toolchest as a Repository for Application Building Blocks
- Create, Monitor, and Modify Running Controller Applications

#### **Controller Programming - Prerequisites**

Participants should be comfortable operating in a Microsoft Windows environment. Participants should have a basic understanding of electrical/control fundamentals. Completing Controller Maintenance would be helpful but NOT required.

#### **Controller Programming - Training Details**

- Price: \$2800 per seat
- Duration: 3.5 Days
- Students will be provided a laptop with Machine Edition and their own or a shared Rx3i Training Simulator (real hardware)

#### **IN-PERSON WORKSHOPS AND COURSES**

### Calendar

#### Machine Edition Quickstart (ME101)

• November 14, 2024 - Relevant Training Center - Houston, TX

#### Controller Maintenance (7700)

- January 28 30, 2025 Relevant Training Center Houston, TX
- May 06 08, 2025 Relevant Training Center Houston, TX

#### **Controller Programming (7701)**

- December 10 13, 2024 Relevant Training Center Houston, TX
- April 01 04, 2025 Relevant Training Center Houston, Tx

### **Registration Information**

Purchase order or credit card required for enrollment / reserve a seat.

Follow up with your Inside Salesperson to register.

Please email attendee information and purchase order number to: vladimir.garner@relevantsolutions.com