AAI Automation Training Series Presents:
PLC Basics – Introduction to Programmable Logic Controllers

Class Overview:

The demand for a workforce trained in the design, installation, programming, and maintenance of automation systems is on the rise. An understanding of programmable controllers is not only valuable to those pursuing a career in control systems, but also to those involved in complimentary roles like mechanical design and maintenance.

With a greater understanding of programmable controllers and their application, students will be better equipped to recognize solutions which positively impact safety, quality, cost, and throughput metrics.

No prior automation knowledge is assumed for this introductory level class which explores the relay logic origins of ladder logic programming, real world applications of programmable controllers and touch screen interfaces, installation and troubleshooting guidelines, and more.

The PLC Basics course is approximately 75% lecture and 25% hands-on. Lab activities include programming a Siemens’ S7-1200 Programmable logic controller using Step 7 “TIA Portal” software. The training format is largely interactive and seeks to engage students and answer their application specific questions. The Instructor will also be available to discuss application specific topics during training breaks and at the close of each session.

Students will leave with the knowledge and skills necessary to create ladder logic in a programmable controller and troubleshoot equipment using tools available in the programming environment. Students will be provided with their own copy of Siemens’ S7-1200 Easy Book, a valuable resource for future hardware and software reference.

Students will also have the opportunity to meet their local AAI support personnel and will be provided with contact information for post-training technical support from AAI and Siemens.

This class is led by a Certified Siemens Technology Specialist for Factory Automation. AAI factory certified engineers have extensive experience in industry and have demonstrated knowledge of products and technologies through comprehensive hands-on and written testing. Each trainer has been certified to possess the proven ability to design and implement automation solutions while utilizing Siemens best practices.
PLC Basics – Introduction to Programmable Controllers
(Continued)

Select Syllabus Topics:

- Origins of the programmable controller
- Reasons for using a PLC versus alternative technologies
- Sample applications and solutions
- Bits and Bytes: how data is stored
- Hardware: selecting and wiring controllers and operator interfaces
- Discrete and analog inputs: Information from the real world
- Introduction to ladder logic: programming and troubleshooting
- Using timers and counters in the PLC
- PLC program architecture and documentation: Best practices
- PLC connections: Communications with your computer and other devices
- How to monitor program execution and data
- Diagnostics and troubleshooting

Prerequisites:

A working knowledge of Microsoft Windows is recommended prior to enrolling in this class

Registration and details:

Duration: 2 days, 8:30 AM - 4:00 PM, Lunch is provided
Cost: $800 per student.

To register, contact AAI’s Training Coordinator, Katie Jackura, at 585.270.5019 or katie.jackura@aainy.com or register online at www.aainy.com/training.htm

A purchase order or credit card is required for registration. A 15% charge/Invoice will be issued for cancellation with less than two days notice or “no-shows”.

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