CTI's Workbench Basic Training

An Introduction to Programming Automation Systems

Prerequisite knowledge

The student must have an understanding of modern control principles and experience used or worked with these systems. The student must be acquainted with Windows[®] based PC environment and applications.

- Industrial Control Devices wiring and application, such as valves, sensors, motors, etc.
- Basic Industrial Communications Systems such as Serial Communications and Ethernet networks
- A Basic understanding of Programming Practices
- An understanding of digital and analog circuits

Goals

This course will provide the student an introduction to CTI's IEC 6-1131-3 program development and PAC control system. The student will learn the concepts that are the foundation of using today's IEC 6-1131-3 Programmable Automation Controllers. These concepts are reinforced with hands on labs and real world application examples using the various languages supported in IEC6-1131-3. This course will give the student:

- Knowledge of IEC 6-1131-3 terms
- Understand PAC Scan Cycles...
- Programming language differences
- Data variable types
- IEC 6-1131-3 System architecture
- Using Workbench and the procedure for creating an application from start to finish
- Provide an understanding of CTI's System Hardware Components and their relationships

Method

- Various demonstrations
- Exercises

Number of participants

• Maximum 6

Duration

• Basic training : 3 days

Courses are generally taught Monday through Wednesday at NAPA's offices. Our courses are also offered for customer on-site classes.



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Contents

- 1. How to Install the software and understanding the licensing procedure
- 2. Intro to IEC 6-1131-3 concepts, terminology, data types
- 3. The correlation between IEC 6-1131-3 and CTI's Workbench
- 4. Introduction to CTI's Workbench Startup and how to navigate
- 5. Creating variables and data types
- 6. How to get started designing an application
- 7. Control Application Development using different languages
- 8. Downloading and commissioning a project
- 9. How to use Ethernet Interfaces for Program Developing, Editing and Startup
- 10. Introduction to industrial communication applications
- 11. Safety Practices as it applies to on-line and off-line editing or program download and startup