

CTI's Workbench Advanced Training

Programming Automation Systems

Prerequisite knowledge

The student must have completed the 'CTI's Workbench Basic Training (3 days_ An Introduction to Programming Automation Systems).

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 more experience with CTI's IEC 6-1131-3 and study more sophisticated approaches to program development and PAC control system. The student will learn the advanced concepts of 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

- Advanced training : 2 days

Courses are generally taught on Thursday and Friday at NAPA's offices right after the CTI's Workbench Basic Training (3 days_ An Introduction to Programming Automation Systems). Our courses are also offered for customer on-site classes.

CTI's Workbench Trainings

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Contents

1. Structured variables
2. Review of existing Libraries
3. User Defined Function Blocks (UDFB)
4. User Defined Function Blocks (UDFB) and SFC
5. Advanced use of SFC : abnormal condition handling
6. Creating your own library 7
7. Using the Fieldbus Editor to Configure Communications with External Devices
8. Using the Variable Binding Editor to Configure Variable Sharing Between Projects
9. Miscellaneous Advanced Topics