

# ***FTSolution for APT® Maintenance Training Course***

## *Prerequisite knowledge*

- Participants should have a basic knowledge of industrial automation and low voltage electrical circuitry in industrial environment.
- Participants should have basic Windows® 7,8,10 knowledge and be able to execute basic operations on a PC.

## *Goals*

- Participants will be able to troubleshoot problems on an Industrial Automation Unit based on CTi series 2500 / TI555 PLC's programmed with FTSolution for APT®.
- Participants will be able to find causes of electrical problems, verify good functioning of I/O cards, test basic functions, temporarily change and force outputs.
- Participants will be able to load and restart the PLC after Hardware or Power failure.

## *Method*

- Various demonstrations
- Exercises

## *Number of participants*

- Maximum 6

## *Duration*

- Maintenance training : 3 days

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## *Contents*

### **1. Principles**

- General overview of CTI/ TI PLC architectures
- Programming with FTSolution for APT®: an object oriented approach

### **2. Usage**

- Overview of FTSolution for APT® menu's and Menu structure; help files
- Finding information in the APT® Manual set
- Structure of a Solution (I/O, Devices, Units)
- Navigating through a Solution in FTSolution for APT®
- Using Table Definition Utilities (define Declarations, Devices)
- Using the Reports
- Using the Cross Reference

### **3. Compilation and Download**

- Compiling a Solution. When to compile?
- Configuring the Controller type
- Downloading a Solution to the controller
- Verifying a downloaded Solution

### **4. Debugging a Solution with FTSolution for APT®**

- Using the Prog / Run Option
- Monitoring Variables
- Changing I/O and Variables
  - Using the Modify Option
  - Using the Force Option
- Tracing SFC Program Flow
  - Using the Breakpoint, Single Step and Step Logger Option
- Using the Activate Option.