PLC Basic

Software	GX Developer
Duration	2 Days
PLC-Type	Mitsubishi FX Series PLC
Pre-Requisites	No prerequisites this is a beginners course
Maximum Delegates	6

Brief Description

* Be able to recognise and identify PLC hardware components.
* Be able to replace input / output cards
* Be able to get on line and monitor PLC code
* Understand PLC basic instruction set and basic LADDER programs
* Be able to upload and download (backup and restore) a PLC program.
* Using simple techniques and test points be able to perform basic system diagnostics when a problem occurs.

Course Documentation

Basic Introduction to PLCs

Course Content

To fault find a system you need to know EXACTLY how it works HOW EXACTLY DOES A PLC WORK?

* Am I getting the input to the PLC?
* The Led on the output card means i am getting voltage out right? does it?
* A PLC is a logic controller, so use a logical approach to fault find it.
* What are the 8 simple test points to check?
* The PLC is in RUN, that means theres a program right? does it? Then you need to Know the specifics HOW DO I DO THE FOLLOWING? (some straight forward some not so)
* How do I check power is ON and PLC is in right mode (RUN or Program)
* Check for a fault condition
* Establish a link between PC and PLC (can be a major issue nowadays)
* Create a blank project and take a backup (just in case I mess up)
* Open project for PLC and go OnLine
* Interrogate Diagnostics
* Identify if it is a hardware or software fault?
* Change the battery
* Change input / output cards if necessary, (with spares and without spares)
* Identify if it is a PLC or Comms fault
* Check all settings against a template etc.
* Check Hardware (What voltage should be where)
* Clear Memory and Download program
* Check software against latest copy
* Monitor program effectively

* Understand Basic Ladder Programs
* Searching for specific operands and instructions
* Check or create a monitor table to establish parameter status
* Call up reference data to assist with software diagnostics
* Display Documentation (Symbols, Comments)

Equipment

* FX Series PLC
* PC or Laptop
* Simulator

Solutions, Not Courses.