

[PLC Basic](#)

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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

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- * 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.