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Omron C Series PLC Level 1

Software: CX Developer / CX One

PLC Type: Omron C Series PLC

Duration: 3 Days

Pre-requisites: None

Maximum Delegates: 6

Brief Description

- Be able to recognise C series hardware and be able to replace modules when a fault occurs.
- Be able to operate the Omron CX Developer software to make it perform certain tasks.
- Understand basic instruction set and be able to make minor modifications to software.
- Be able to backup and restore a PLC program when required.
- Be able to perform basic system diagnostics when a problem occurs.

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?
- What exactly happens in between? theres more than just a program in the CPU
- How exactly does it scan the program?
- What is this Watchdog Timer? Is it that important?
- Can I use the same output twice? That's bad programming isn't 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?
- FORCING a bit and toggling a bit is pretty much the same yeah? depends on which PLC

Then you need to know the specifics

HOW DO I DO THE FOLLOWING? (some straight forward some not so)

- Identify component parts of the C Series PLC system
- I/O addressing and configuration
- Memory organization
- System connection

- Understand and interpret system LEDs
- Modes of operation
- Communicating with the PLC
- Addressing
- Contact and relay-type instructions
- Timer and counter instructions
- Comparison instructions
- Maths instructions
- Force functions
- Search functions
- Save function
- Replacement of battery, I/O modules and CPU
- Fault find simple software problems
- Fault find simple hardware faults
- Interpret cross references & printouts
- Generation of documentation to assist fault finding

Course Equipment (per delegate)

- C Series PLC
- PC or Laptop
- Simulator