

[Omron CQM Series PLC Level 1](#)

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Software	CX Developer / CX One
Duration	5 Days
PLC-Type	Omron CQM Series PLC
Pre-Requisites	No prerequisites this is a beginners course
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 Documentation

- * Training Log
- * Pre Course Exercises
- * Course Exercises
- * Post Course Exercises
- * Filofax Pocket Reference Guides

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 LED's

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- * Modes of operation
- * Communicating with the PLC
- * Addressing
- * Contact and relay-type instructions
- * Timer and counter instructions
- * Program control 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

Equipment

- * CQM Series PLC
- * PC or Laptop
- * Simulator

Solutions, Not Courses.