



Australian Government

Assessment Requirements for MEM30027 Prepare basic programs for programmable logic controllers

Release: 1

Assessment Requirements for MEM30027 Prepare basic programs for programmable logic controllers

Modification History

Release 1. Supersedes and is equivalent to MEM30027A Prepare basic programs for programmable logic controllers.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- writing and testing basic programs using a program loader on at least two occasions
- editing and monitoring basic programs using a program loader.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- hazards and control measures associated with preparing basic programs for programmable logic controllers (PLC) including housekeeping
- safe work practices and procedures
- general aspects of programmable controllers including:
 - basic PLC operation:
 - definitions
 - terminology
 - block diagrams
 - scan cycle
 - basic programming rules including:
 - addressing for I/O
 - halt
 - run
- programming using a program loader including:
 - flowcharts and steps to use when programming
 - clearing of memory
 - ladder format
- Boolean, mnemonic and statement list format including:
 - series circuits

- parallel circuits
- latching circuits
- stack register operation
- combination series and parallel circuits
- inversion elements
- timers
- counters:
 - monitoring of discrete I/O and timer/counter values
 - editing including insertion and deletion of elements
- connection of discrete input and output devices to a PLC.
-

Assessment Conditions

- Assessors must:
 - have vocational competency in preparing basic programs for programmable logic controllers at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
-

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>