



Australian Government

UEEIC0005 Configure and maintain industrial control system networks

Release: 1

UEEIC0005 Configure and maintain industrial control system networks

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to configure and maintain communication services on an industrial control system network.

It includes industrial control network topology and protocols, configuring data links, bus monitoring and system management and access, network testing and documenting system settings.

This unit applies to all aspects of electrotechnology – engineering applications only. For general competencies related to information technology (IT) refer to the latest endorsed ICT Information and Communications Technology Training Package.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Instrumentation & Control

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to configure industrial control system

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a

networks	given work area are identified, obtained and applied
	1.2 Hazards are identified, WHS/OHS risks assessed, and control measures and workplace procedures are implemented in preparation for work
	1.3 Scope of the industrial control system and network is established from control system specifications and in consultation with relevant person/s
	1.4 Activities are planned to meet scheduled timelines in consultation with others involved in the work
	1.5 Network operating system versions and updates needed to configure and maintain the network are obtained in accordance with workplace procedures and checked against job requirements
2 Configure and maintain industrial control system networks	2.1 WHS/OHS risk control measures and workplace procedures for carrying out work are followed
	2.2 Control application network components are installed, upgraded and configured in accordance with design instructions and network requirements
	2.3 Devices desktop environment, network protocols and services and system security are implemented in accordance with network requirements
	2.4 Access to control data and resources is configured within the limitations specified for each relevant network user
	2.5 Network malfunctions are identified and rectified using logical fault-finding techniques of control devices, storage network protocols, connections and services and system security configuration processes
	2.6 Network performance and reliability is monitored and optimised in accordance with workplace procedures
	2.7 Methods for dealing with unplanned situations are selected on the basis of safety and specified work outcomes
	2.8 Network administration is carried out efficiently, without waste of materials and energy or damage to apparatus, the surrounding environment or other

services

3 Document network configuration and maintenance activities

- 3.1** Written justification is documented detailing network maintenance and upgrade requirements and relevant person/s notified in accordance with workplace procedures
- 3.2** Network maintenance documentation is maintained in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Configuring and maintaining an industrial control system network must include the following:

- at least two programable controllers
- at least one human-machine interface (HMI)

Unit Mapping Information

This unit replaces and is equivalent to UEENEEI157A Configure and maintain industrial control system networks.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>