



Australian Government

Department of Education, Employment and Workplace Relations

MSACMT461A Facilitate SCADA systems in a manufacturing team or work area

Revision Number: 1

MSACMT461A Facilitate SCADA systems in a manufacturing team or work area

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the knowledge and skills required by a person who is required to use System Control and Data Acquisition (SCADA), or other similar systems, and support the team in their use of SCADA.
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Application of the Unit

Application of the unit	<p>In a typical scenario, an organisation will be using SCADA. The person will access the SCADA system for their own work, but will also need to provide support and organise skill development programs for their team members.</p> <p>This competency is also relevant to maintenance personnel using a SCADA system to coordinate maintenance activities.</p> <p>This unit primarily requires the application of skills associated with using communication technology and supporting team use of SCADA systems. Problem solving, initiative and enterprise, and planning and organisational skills are required to ensure that system is used efficiently. This requires aspects of learning and self management to ensure own performance and that of the team.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	<i>MSACMT261A</i>	<i>Use SCADA systems in manufacturing</i>
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Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Communicate using the SCADA system	1.1. Send and receive information using SCADA 1.2. Send and receive messages using SCADA
2. Make decisions using SCADA	2.1. Interrogate the SCADA system to find required current, historical or predicted information 2.2. Take actions appropriate to the information
3. Monitor the use of SCADA	3.1. Routinely monitor SCADA information and use along the <i>value chain</i> 3.2. Identify poor uses of SCADA system within team and system inadequacies 3.3. Identify team members who require additional support 3.4. Take appropriate action to provide required support 3.5. Take appropriate action to improve SCADA system and its use
4. Support team use SCADA	4.1. Regularly communicate with team, both using SCADA based communication and face to face 4.2. Identify system improvements required 4.3. Identify skill improvement needs 4.4. Take appropriate actions to have the identified improvements implemented

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills:

- keyboarding/mousing
- communication
- teamwork
- problem solving.
- planning and organising

Required knowledge:

- hierarchy of SCADA system and operation
- information available from and controls exercised by/through the SCADA system
- facilities and information offered by SCADA
- support/training/skill development mechanisms available for access by team member.

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.</p>	
Overview of assessment requirements	The person will not only be a competent user of SCADA but will also support their team using it.
What critical aspects of evidence are required to demonstrate competency in this unit?	Evidence of competent use of SCADA and also of assisting the team to use it effectively and efficiently.
In what context should assessment occur?	Assessment will need to occur on an organisation using SCADA or by use of SCADA simulation.
Are there any other units which could or should be assessed with this unit or which relate directly to this unit?	<p>This unit may be assessed concurrently with other relevant units. This unit covers the intermediate skill level of SCADA.</p> <p><i>MSACMT261A Use SCADA systems in manufacturing</i>, and <i>MSACMT660A Develop the application of enterprise systems in manufacturing</i> cover the lower and higher skill levels in CM respectively.</p> <p><i>MSACMT261A Use SCADA systems in manufacturing</i> is specified as a prerequisite, and should be applied to the person's own job.</p>
What method of assessment should apply?	<p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the elements, performance criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the assessment.</p>
What evidence is required for demonstration of consistent performance?	Evidence of routine use over an extended period should be available. SCADA systems will typically log all interactions with it. Interrogation of the SCADA system will therefore provide evidence of the operator's use of it. Actions taken may also be accessible from the SCADA system itself, or may need other

EVIDENCE GUIDE	
	evidence available from the process.
What are the specific resource requirements for this unit?	Access to an organisation using SCADA.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

SCADA

System Control and Data Acquisition (SCADA) is a general term applied to a number of systems which automatically collect critical process data, perform required mathematical manipulations on it and then make control decisions and/or give required information personnel for action.

In the continuous manufacturing sector, the SCADA system is sometimes integrated into other sophisticated computer control systems such as Distributed Control System (DCS) and indeed these systems do merge in advanced systems. These organisations may simply refer to their SCADA as the DCS or other similar term (such as the proprietary name of the computer system).

Value chain

Competitive manufacturing organisations encompass the entire production system, beginning with the customer, and includes the product sales outlet, the final assembler, product design, raw material mining and processing and all tiers of the value chain (sometimes called the supply chain). Any truly 'competitive' system is highly dependent on the demands of its customers and the reliability of its suppliers. No implementation of competitive manufacturing can reach its full potential without including the entire 'enterprise' in its planning.

Unit Sector(s)

Unit Sector	CM Tools
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corequisite units

Corequisite units	
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Functional area

Functional Area	
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