



Australian Government

Department of Education, Employment and Workplace Relations

ICAB5071B Review developed software

Release: 1

ICAB5071B Review developed software

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required when applying quality standards associated with software development. The following units are linked and form an appropriate cluster: • ICAT5077B Develop detailed test plan • ICAT5083B Develop and conduct client acceptance test No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

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. Review quality standards	1.1. Review copies of the organisation's quality standards and international standards related to software development and prepare for use 1.2. Contact appropriate person to discuss their involvement in the review and establish their role 1.3. Determine and document the approach to be used to validate the quality during the review
2. Determine development quality issues	2.1. Examine and document processes that have a significant impact on the quality of a particular product under development 2.2. Hold discussions on quality issues with development staff and establish agreed actions 2.3. Allocate responsibilities to development staff 2.4. Obtain agreement from appropriate person on procedures to ensure quality of development, where necessary
3. Review specific quality areas	3.1. Review plans to ensure that they are adequate to control the quality of the development process 3.2. Review testing processes to ensure that defect-free software will be developed 3.3. Examine documentation and methods for development to ensure that software will be supportable 3.4. Monitor requirements to ensure that client needs are met

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Project planning skills in relation to scope, time, cost, quality, communications and risk management (e.g. when plans are reviewed to ensure that they are adequate to control the development process)
- Problem solving skills for a defined range of unpredictable problems (e.g. when test processes are reviewed to ensure that defect-free software will be developed)

REQUIRED SKILLS AND KNOWLEDGE

- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information (e.g. when the approach to be used to validate the quality during development is documented)
- Data modelling skills for identifying, analysing and evaluating a range of solutions (e.g. when processes that have a significant impact on the quality of the development process are examined)
- Design and analysis skills for identifying, analysing and evaluating a range of solutions (e.g. when processes that have a significant impact on the quality of the development process are examined)
- Size estimation skills in relation to analysis, evaluation and identification of boundaries (e.g. when client requirements are monitored and met)
- Algorithms skills in relation to analysis, evaluation and identification of solutions

Required knowledge

- Broad knowledge of the client business domain (e.g. when reviewing quality standards)
- Broad knowledge of quality assurance practices and the identification of standards (e.g. when reviewing quality standards)
- Broad knowledge of programming languages, two or more procedural languages and three or more object-oriented languages
- Broad knowledge of software metrics development
- Broad knowledge of the operating system
- Broad knowledge of real-time programming
- Broad knowledge of input/output drivers
- Broad knowledge of current industry-accepted hardware and software products, with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge of software development configuration management processes
- Broad knowledge of size estimation

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- Assessment must demonstrate the ability to determine quality standards and procedures that will support the development of defect-free products to meet client requirements.

To demonstrate competency in this unit the person will require access to:

- Standards
- Data dictionaries
- DSMS
- Design specifications
- Simulated scenario

Context of and specific resources for assessment

The breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination would be characteristic.

Assessment must ensure:

- The demonstration of competency may also require self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.
- Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or

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	team coordination may also be involved.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. - Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. - Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: - ICAT5077B Develop detailed test plan - ICAT5083B Develop and conduct client acceptance test An individual demonstrating this competency would be able to: - Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas - Analyse and plan approaches to technical problems

EVIDENCE GUIDE

	or management requirements • Transfer and apply theoretical concepts and/or technical or creative skills to a range of situations • Evaluate information, using it to forecast for planning or research purposes • Take responsibility for own outputs in relation to broad quantity and quality parameters • Take some responsibility for the achievement of group outcomes • Maintain knowledge of industry products and services
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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.

Quality standards - relevant quality standards include:

- AS 4043-1992 Software configuration management
- AS 4042-1992 Software configuration management plans
- AS 3925.1-1994 Software quality assurance - plans
- AS/NZS 4258:1994 Software user documentation process
- AS/NZS ISO/IEC 12207:1997 Information technology - software life cycle processes
- AS/NZS 14102:1998 Information technology - guideline for evaluation and selection of CASE tools

International and Australian Standards are updated and changed on a regular basis. It is therefore important to check the Standards Australia website on a regular basis for relevant new domestic and

RANGE STATEMENT	
	international standards: http://www.standards.com.au
International standards may include:	• International Standards Organisation (ISO) • International Electrotechnical Commission (IEC) • Australian Standards (AS) • software development standards (for further information refer to the Standards Australia website at: www.standards.com.au)
Appropriate person may include:	• supervisor • teacher • authorised business representative • client
Documentation may follow:	• ISO/IEC/AS standards • audit trails • naming standards • version control • project management templates and report writing • maintaining equipment inventory; client training and satisfaction reports
Requirements may be in reference to:	• business • system • platform • application • database • network • people in the organisation
Client may include but is not limited to:	• internal departments • external organisations • clubs • individual people • internal employees

Unit Sector(s)

Unit sector	Build
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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