



Australian Government

Department of Education, Employment and Workplace Relations

ICAS4107B Manage resolution of system faults on a live system

Release: 1

ICAS4107B Manage resolution of system faults on a live system

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to manage reactive errors and failures on a live system. The following units are linked and form an appropriate cluster: • ICAS4022B Determine client computing problems and action • ICAS4114B Implement maintenance procedures • ICAS4127B Support system software 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		
	ICAS3024B	Provide basic system administration
	ICAT3025B	Run standard diagnostic tests

Prerequisite units		
	ICAT4221B	Locate equipment, system and software faults

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. Determine maintenance methodologies and repositories	1.1. Identify the nature of modification to the system 1.2. Confirm the existence and currency of repositories 1.3. Review repositories for changes and develop new back-up procedures 1.4. Prepare or check modification request forms and levels of authority for sign-off 1.5. Develop a hierarchy of modifications and the response for each 1.6. Determine the back-up and blackout strategies in place
2. Implement change management system	2.1. Follow standards and procedures for logging the change request 2.2. Document the expected impact to the user base during implementation 2.3. Identify levels of possible failure and the related reporting procedures 2.4. Document the expected outcomes of the modification 2.5. Inform user of modification implications 2.6. Assign the modification to appropriate person for actioning
3. Report review of results	3.1. Complete all aspects of the change system and ensure the modification is tested and operational 3.2. Prepare the report and deliver to the appropriate person indicating the results of modification 3.3. Update and amend documentation and repositories

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives
- Plain English literacy and communication skills in relation to analysis, evaluation

REQUIRED SKILLS AND KNOWLEDGE

and presentation of information

- Teamwork skills involve the contribution to solutions and goals of a non-routine or contingency nature
- Group facilitation and presentation skills in relation to transferring and collecting information and gaining consensus on concepts
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas
- Change management skills in relation to maintaining the continuity of ICT operations and business functions
- Customer service skills in relation to reviewing change procedures
- Skills in handling difficult clients in relation to reviewing change procedures
- Conflict resolution skills in relation to reviewing change procedures
- Risk analysis skills in relation to reviewing change procedures
- Low-level training needs analysis skills
- Low-level programming skills

Required knowledge

- Broad knowledge of help desk and maintenance practices
- Current industry-accepted hardware and software products, with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge of the role of stakeholders and the degree of stakeholder involvement
- Broad general knowledge of the client business domain
- Detailed knowledge of the system's current functionality
- Broad knowledge of quality assurance practices
- Broad knowledge of system testing
- Broad knowledge of change control procedures
- Detailed knowledge of the system under modification

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 confirm the ability to identify the expected outcomes of the modification and demonstrate the steps involved in the implementation of the modification. The learner must have a good knowledge of the implications of success and failure of the proposed modification and what steps or procedures to carry out in each of these scenarios.

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

- Live system
- Benchmarking/testing tools

Context of and specific resources for assessment

The breadth, depth and complexity of knowledge and skills in this competency would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance would be involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Assessment must ensure:

- Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills would be characteristic.
- Applications may involve responsibility for, and limited organisation of, others.

EVIDENCE GUIDE**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:

- ICAS4022B Determine client computing problems and action
- ICAS4114B Implement maintenance procedures
- ICAS4127B Support system software

An individual demonstrating this competency would be able to:

- Demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
- Apply solutions to a defined range of unpredictable

EVIDENCE GUIDE

	problems - Identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas - Identify, analyse and evaluate information from a variety of sources - Take responsibility for own outputs in relation to specified quality standards - Take limited responsibility for the quantity and quality of the output of others - 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.

<i>Modification</i> may include but is not limited to:	- error correction - system recovery - assistance - enhancement
<i>System</i> may include but is not limited to:	hardware and software components that run a computer
<i>Repositories</i> may include but is not limited to:	- central repository - program library - databases
<i>Standards</i> may include:	- ISO/IEC/AS standards - organisational standards - project standards (for further information refer to the Standards Australia website at: www.standards.com.au)
<i>Documentation</i> may include:	- collection of records that describe the structure - purpose

RANGE STATEMENT	
	• operation • maintenance and data requirements for a computer program • operating system • hardware device
User may include:	• a person within a department • a department within the organisation • a third party
Appropriate person may include:	• supervisor • teacher • authorised business representative • client
Reporting procedures - help desk and maintenance structures will vary, some may be:	• Customer contact centre or general contact point that then consults with a supplier or other technician • Customer contact centre staffed by technicians capable of solving the problem • real-time on-line support • web-based support

Unit Sector(s)

Unit sector	Support
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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