



Australian Government

Department of Education, Employment and Workplace Relations

ICAU2231B Use computer operating system

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to configure, use and optimise a computer operating system. There may be benefit in concurrent learning of the following unit: • ICAU2005B Operate computer hardware The following unit is linked and forms an appropriate cluster: • ICAU2005B Operate computer hardware 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		
	ICAU1128B	Operate a personal computer

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. Configure operating system	1.1. Configure operating system to suit the working environment, including but not limited to setting variables
2. Use operating system	2.1. Install, upgrade and uninstall application software to suit the working environment 2.2. Use both the graphical user interface and the command line interface to perform basic tasks
3. Optimise operating system	3.1. Use operating system and third-party utilities 3.2. Customise the graphical user interface 3.3. Use techniques unique to the command line interface
4. Support input and output devices	4.1. Set up input and output devices and check functionality 4.2. Install drivers as appropriate and check functionality

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Configure, use and optimise operating system
- Install and support peripheral devices
- Create users for a multi-user system
- Apply user changes for a multi-user operating system
- Set passwords for different users
- Clear and precise communication with team members and supervisors

Required knowledge

- Function of single-user and multi-user operating systems
- Compatibility of an operating system, in respect to other versions
- Interoperability between operating systems
- Software applicable to the operating system

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 use an operating system in a variety of scenarios and across all functions including (1) scheduling, loading, initiating, and supervising the execution of programs; (2) allocating storage; (3) initiating and controlling input/output operations; and (4) handling errors.

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

- Workstation
- Operating system
- Software configuration guides
- Documents detailing operating system control panel and configuration data

Context of and specific resources for assessment

An introduction to the command line at this level would be appropriate to prepare the person for concepts related to directory structure, folder hierarchy and path relationships.

The operating system (OS) program is the first program loaded into the computer by a boot program and it remains in memory at all times thereafter. It is strategically placed in that it manages all the other programs in a computer including the allocation and usage of hardware resources such as memory, central processing unit (CPU) time, access and security, hard disk space, and peripheral devices (like speakers or a mouse).

The OS is the foundation software on which other programs, such as Word or Excel, depend. These other programs are called applications or application programs. The application programs make use of the operating

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	system by making requests for services through a defined application program interface (API). In addition, users can interact directly with the operating system through a user interface such as a command language or a graphical user interface (GUI). Operating systems come in a variety of forms. Most use a graphical user interface (GUI) and some use command line; others have a combination of both. It is appropriate for the person to grasp the fundamentals of both the GUI and the command line interface to prepare them for advanced concepts should they chose to enter learning towards a more advanced unit of competency. The breadth, depth and complexity of knowledge and skills in this competency would prepare a person to perform in a range of varied activities or knowledge applications where there is a clearly defined range of contexts in which the choice of actions required is usually clear. There would generally be limited complexity in the range of operations to be applied. Assessment must ensure: • Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes would be characteristic. • Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.
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

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	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: - ICAU2005B Operate computer hardware An individual demonstrating this competency would be able to: - Demonstrate basic operational knowledge in a moderate range of areas - Apply a defined range of skills - Apply known solutions to a limited range of predictable problems - Perform a range of tasks where choice between a limited range of options is required - Assess and record information from varied sources - Communicate with team members to clarify job requirements - Take limited responsibility for own outputs in work and learning.

EVIDENCE GUIDE

	Additionally, an individual demonstrating this competency would be able to: • Understand a range of concepts and procedures related to operating systems • Demonstrate theoretical knowledge of operating system set-up and configuration • Apply changes to an operating system • 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>Operating system</i> may include but is not limited to:	• Linux 7.0 or above • Windows 2000 or above • Apple OS X or above
<i>Application software</i> may include:	• databases • word processing • email • internet browsers • system browsers • spreadsheets
<i>Third-party utilities</i> may include but are not limited to:	• disk scanning • partitioning and defragmenting • backing up data • recovery • diagnostic tools
<i>Input and output devices</i> may include but are not limited to:	• keyboard • mouse • printer • scanner

RANGE STATEMENT

	• monitor • modem
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Unit Sector(s)

Unit sector	Use
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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