



Australian Government

Department of Education, Employment and Workplace Relations

ICAB5065B Prepare for the build phase

Release: 1

ICAB5065B Prepare for the build phase

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit defines the competency required to prepare the development environment for the build phase and actual coding of the system.</p> <p>The following unit is linked and forms an appropriate cluster:</p> <ul style="list-style-type: none"> • ICAB5066B Coordinate the build phase <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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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. Identify best development platform for project	1.1. Identify <i>requirements</i> of the <i>development platform</i> using the detailed <i>technical specifications</i> 1.2. Match the <i>technical specification</i> of the <i>development platform</i> with the <i>technical specification</i> of the project and relevant <i>quality standards</i>
2. Identify best development tools for project	2.1. Identify functional requirements for development tools using the detailed <i>technical specifications</i> and other <i>program documentation</i> 2.2. Evaluate development tools for match with <i>requirements</i> and document evaluation outcomes 2.3. Select appropriate <i>development tools</i>
3. Prepare development environment	3.1. Obtain components for <i>development platform</i> , development tools and required <i>hardware</i> 3.2. Install, configure and test <i>development platform</i> and tools 3.3. Document the configuration of the <i>development platform</i>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Ability to read and correctly interpret technical design documentation
- Analytical skills for identifying, analysing and evaluating a range of solutions
- Ability to install, configure and test a variety of development tools and platforms
- Documentation skills for quality-related software documentation
- Problem solving skills for a defined range of predictable problems (e.g. when identifying best development tools for project)

Required knowledge

- Current industry-accepted coding methods and standards in a recognised language
- Current industry-accepted DBMS modelling techniques
- Software and database design principles and techniques

REQUIRED SKILLS AND KNOWLEDGE

- Software and database architectures and their technical requirements
- Broad knowledge of quality assurance practices (e.g. when identifying best development platform for project)
- Broad general knowledge of the client business domain (e.g. when identifying best development platform for project)

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 sufficient knowledge of the build or coding phase in a number of key areas. Coding, testing, administration, GUI design, etc. are all components of this phase.
- Assessment must confirm the ability to meet technical requirements by successfully preparing the development environment.

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

- Technical specifications
- Version control standards
- Software requirements specifications
- System requirements
- Design specification

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

EVIDENCE GUIDE	
	operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team coordination may also be involved.
Method of assessment	<p>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.</p> <ul style="list-style-type: none"> • 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	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • ICAB5066B Coordinate the build phase <p>An individual demonstrating this competency would be able to:</p> <ul style="list-style-type: none"> • Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas

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	<ul style="list-style-type: none"> • Analyse and plan approaches to technical problems 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.

Requirements may be in reference to:

- business
- system
- platform
- application
- database
- network
- people in the organisation

Development platform may include but is not limited to:

- operating systems
- target environments
- development tools
- computer language used
- version control systems
- development methodology

Technical specification may include but is not limited to:

- technical requirements
- user problem statement
- system functionality

RANGE STATEMENT	
Quality standards relevant quality standards include:	<ul style="list-style-type: none"> • 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. <p>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 new standards: http://www.standards.com.au</p>
Program documentation may include but is not limited to:	<ul style="list-style-type: none"> • user manuals • design documents • requirement documents • test documents • release documents • in-code documentation • code comments • internal module documentation • architecture documentation • design document
Development tools may include:	<ul style="list-style-type: none"> • CASE tools • program generator • screen generator • fourth-generation language
Components may include:	<ul style="list-style-type: none"> • motherboards • CMOS battery • central processing unit (CPU) • CD and DVD drives • interface cards • drives • fax/modem cards

RANGE STATEMENT	
	<ul style="list-style-type: none"> • RAM upgrades • CPU upgrades
<i>Hardware</i> may include but is not limited to:	<ul style="list-style-type: none"> • workstations • personal computers • modems and other connectivity devices • networks • remote sites • servers • DSL modems

Unit Sector(s)

Unit sector	Build
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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