



Australian Government

Department of Education, Employment and Workplace Relations

ICAB5066B Coordinate the build phase

Release: 1

ICAB5066B Coordinate the build phase

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to coordinate activities to be carried out during the build phase and actual coding of the system. The unit focuses on the day to day management of tasks associated with making sure that the software product is developed in accordance with the design specifications and project plan. 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		
	ICAB5065B	Prepare for the build phase

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. Prepare work	1.1. Review the specifications and standards for the project 1.2. Review the project documentation for the development environment 1.3. Analyse and confirm that the development environment matches the project documentation and meets standards 1.4. Select development tools
2. Coordinate work	2.1. Determine work units based on the design 2.2. Delegate work units to the appropriate developers 2.3. Brief developers on standards, procedures, schedules and other requirements 2.4. Implement project management techniques to ensure that all tasks are completed on time and in accordance with standards and the specification
3. Coordinate development environment	3.1. Implement and test changes to the development environment and document outcomes 3.2. Update the project documentation for the development environment

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Planning skills in relation to scope and quality
- Attention to detail in coding work on units under testing
- Data modelling skills for identifying, analysing and evaluating a range of solutions
- Algorithm skills for identifying, analysing and evaluating a range of solutions
- Problem solving skills when coordinating build phase

Required knowledge

- Broad knowledge of current industry-accepted coding in a recognised language, with knowledge of features and capabilities and detailed knowledge in some areas
- Broad knowledge of current industry-accepted DBMS modelling techniques

REQUIRED SKILLS AND KNOWLEDGE

- Broad knowledge of at least three or more current principles of databases
- Current industry-accepted hardware and software products, with broad knowledge of general features and capabilities and detailed knowledge in some areas
- Broad knowledge of database design
- Broad knowledge of quality assurance practices (e.g. when providing development environment and designing work units)
- Broad general knowledge of the client business domain
- Broad knowledge of client/server architecture

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 and coding phase in a number of key areas. Components of this phase that need to be coordinated include coding, testing, administration and GUI design.
- Assessment must confirm the ability to coordinate the technical requirements by successfully coordinating allocated tasks.

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

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

Assessment of this unit of competency may include a review of documents developed by an organisation, which relate to the clear documentation of:

- Test results
- Performance benchmarks and module design
- Planning information system overview and module implementation specifications

Context of and specific resources for assessment

The build phase of a software project should be carefully managed to prevent unauthorised tampering with code. Security should always be considered during code work as back-doors and Trojans can be embedded and be difficult to locate. 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

EVIDENCE GUIDE	
	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 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

EVIDENCE GUIDE	
	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. 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 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

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>Specification</i> may include but is not limited to:	• technical requirements • user problem statement • current system functionality • project plan • software requirements • metrics

RANGE STATEMENT	
<i>Project</i> may include:	• a business involved in a total organisational change • a systems-only change • a business improvement process • an e-business solution involving the total organisation or part of the organisation
<i>Development environment</i> may include but is not limited to:	• operating systems • target environments • development tools • computer language used • version control systems • development methodology
<i>Development tools</i> may include:	• CASE tools • program generator • screen generator • fourth-generation language
<i>Requirements</i> may be in reference to:	• business • system • platform • application • database • network • people in the organisation

Unit Sector(s)

Unit sector	Build
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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