Australian Government

Department of Education, Employment and Workplace Relations

# ICAA5046B Model preferred system solutions

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

## ICAA5046B Model preferred system solutions

## Modification History

Not Applicable

## Unit Descriptor

| Unit descriptor | This unit defines the competency required to fit a physical model into the design phase of the methodology.<br><br>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 | |
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## 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 |
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| 1. Review and confirm requirements information and existing models | 1.1. Review *requirements* information and clarify areas that are not understood |
| | 1.2. Identify organisational *standards* for developing models, and check the model development method for consistency with organisational goals |
| | 1.3. Identify assumptions and incorporate into modelling process |
| | 1.4. Identify goals and resolve into tasks required to be performed to obtain the goals |
| | 1.5. Define internal tasks needed to perform identified goals |
| 2. Resolve conflicts and inconsistencies | 2.1. Identify missed opportunities arising from previous and current model development |
| | 2.2. Identify bottlenecks, overlooked functionalities and other issues and resolve with *client* input as required |
| 3. Build and test model | 3.1. Develop model based on *existing architecture* |
| | 3.2. Document details of model according to agreed project or organisational standards |
| | 3.3. Develop model according to *project* deliverables and acceptance criteria and within a determined timeframe and project constraints |
| | 3.4. Test model against the test plan |
| | 3.5. Document test data to ensure test procedures accurately and thoroughly validate performance of model |
| 4. Ensure that the model represents a workable solution | 4.1. Ensure a consensus view of key IT *stakeholders* is represented in the model |
| | 4.2. Ensure the model is checked by key IT *stakeholders* to confirm common understanding of the model and the proposed *solution* |
| | 4.3. Submit the model to *appropriate person* for sign-off |

## Required Skills and Knowledge

| REQUIRED SKILLS AND KNOWLEDGE |
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| This section describes the skills and knowledge required for this unit. |

## REQUIRED SKILLS AND KNOWLEDGE

### Required skills

- Problem solving skills for a defined range of unpredictable problems (e.g. when resolving conflicts and inconsistencies)
- Plain English literacy and communication skills in relation to dealing with clients and team members (e.g. when documenting details of system model)
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems (e.g. when representing a consensus view of key IT stakeholders in the model)
- Questioning and active listening skills (e.g. when reviewing requirements information gathered to date and clarifying areas that are not understood)
- Research skills for specifying, analysing and evaluating broad features of a particular business domain and best practice in system development (e.g. when specifying latent assumptions and incorporating them into modelling process, and for considering missed opportunities in the model development)
- Project planning skills in relation to set benchmarks and identified scope (e.g. when developing model according to project deliverables and acceptance criteria, and within a determined timeframe and project cost constraints)

### Required knowledge

- Broad knowledge of modelling techniques and methodologies for evolving requirements information and existing models
- Broad knowledge of systems development methodologies (e.g. when evolving requirements information and existing models, and for resolving conflicts and inconsistencies)
- Broad general knowledge of the client business domain, particularly the business function and organisation (e.g. when ensuring model represents a workable solution)
- Current industry-accepted hardware and software products, including broad knowledge of general features and capabilities (e.g. when building and testing model)
- Detailed knowledge of a range of development tools (e.g. when building and testing model)

# Evidence Guide

| **EVIDENCE GUIDE** | |
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| 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: <br>• Assessment must confirm sufficient knowledge and use of two or more development tools. <br>• Assessment must confirm the ability to meet client requirements by developing specific areas of the system for further information or to confirm a software/hardware direction. <br><br> To demonstrate competency in this unit the learner will require access to: <br>• Client requirements <br>• Technical specifications <br>• Organisational and process goals <br>• Standards for model development <br>• Acceptance criteria <br>• Project deliverables <br>• Future organisational business processes <br>• Test plan <br>• Project budget |
| **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. <br><br> Assessment must ensure: <br>• 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. <br>• Applications involve participation in development of strategic initiatives as well as personal responsibility |

| EVIDENCE GUIDE | |
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| | 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 to 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: |
| | An individual demonstrating this competency would be able to: |
| | • Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with |

| EVIDENCE GUIDE | |
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| | 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 | |
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| 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<br>• system<br>• application<br>• network<br>• people in the organisation |
| *Standards* may include: | • ISO/IEC/AS standards<br>• organisational standards<br>• project standards (for further information refer to the Standards Australia website at: www.standards.com.au) |
| *Client* may include but is not limited to: | • internal departments<br>• external organisations<br>• individual people<br>• employees |
| *Existing architecture* may vary | • systems based around mainframes to networks |

## RANGE STATEMENT

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| from: | of mid-range machines and desktop computers. Networks may be local, intranet, virtual private network, wide or based on the internet, with vendor products and network protocols |
| *Documentation* may follow: | • ISO/IEC/AS standards<br>• audit trails<br>• naming standards<br>• version control<br>• project management templates<br>• report writing principles |
| *Project* may include: | • a total organisational change<br>• a systems-only change<br>• a business improvement process<br>• an e-business solution involving the total organisation or part of the organisation |
| *Stakeholders* may include: | • May include sponsor, user, development team and project team |
| *Constraints* may include but is not limited to: | • May include but are not limited to time, budget, resource, hardware, software, policy and legal constraints |
| *Solution* may include but is not limited to: | • new hardware<br>• hardware upgrades<br>• new software<br>• software upgrades<br>• user training<br>• implementing a new system |
| *Appropriate person* may include: | • supervisor<br>• teacher<br>• authorised business representative<br>• client |

# Unit Sector(s)

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| **Unit sector** | Analyse and Design |

# Co-requisite units

| Co-requisite units | | |
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# Competency field

| Competency field | |
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Innovation and Business Skills Australia