



Australian Government

Department of Education, Employment and Workplace Relations

ICASAD502A Model data processes

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to gather process data and business information in order to model data processes within an organisation.

Application of the Unit

This unit applies to systems designers who are required to design new systems by modelling data processes.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

1. Develop scope of model	1.1 Identify relevant data processes and sources of information 1.2 Identify information-gathering method and modelling methodology to be used 1.3 Document modelling information gathered 1.4 Validate modelling information with client
2. Gather process data	2.1 Identify business functions and collect process data using chosen method 2.2 Identify external events, procedures and results 2.3 Identify processes and required decomposition
3. Develop and validate data model	3.1 Model process data according to modelling methodology 3.2 Validate process model with client to determine inaccuracies 3.3 Incorporate identified changes, as required 3.4 Review business rules to determine impact on process models and change as required 3.5 Validate completed process models with client

Required Skills and Knowledge

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

Required skills

- analytical skills to determine business requirements
- communication skills to liaise with users
- literacy skills to document the process model
- research skills to research current industry practice
- technical skills to implement process modelling using relevant methodologies, including object-oriented cooperative process modelling and OIKOS.

Required knowledge

- detailed knowledge of modelling rules and conventions with reference to naming processes and events
- features and functions of process mappers, e.g. IEF, Isee, ProcessWise Workbench, ARIS, and PROTOS
- features of data analysis, particularly in determining process flows
- processes and techniques using logical design concepts related to designing process models.

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 ability to: • identify data processes that represent the client's business reality • model these processes according to industry and organisation standard • document the model.
Context of and specific resources for assessment	Assessment must ensure access to: • appropriate learning and assessment support when required • modified equipment for people with special needs • client business requirements • database software • computer-aided software engineering (CASE) tools or other modelling software.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • verbal or written questioning to assess candidate's knowledge of: • process modelling • business rules • review of completed data model and associated documentation prepared by candidate.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

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>Information gathering method</i> may include:	• interviews • observation • questionnaires • surveys.
<i>Modelling</i> may include:	• activity definition report (process definition) • activity dependency diagram • activity hierarchy diagrams (process diagrams) • data flow diagrams • use case diagrams.
<i>Client</i> may include:	• employees • external organisations • individuals • internal departments.

Unit Sector(s)

Systems analysis and design