



Australian Government

CPPSIS4022A Store and retrieve spatial data

Release 1

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Modification History

Unit revised and not equivalent to CPPSIS4002A Store and retrieve spatial data
Element structure, performance criteria, and critical aspects reviewed to reflect workplace requirements
Skills and knowledge requirements and the range statement updated

Unit Descriptor

This unit of competency specifies the outcomes required to store and retrieve spatial data from a range of storage media, including digital or hard copy storage. It requires the ability to analyse and evaluate spatial information from a variety of sources and to identify and access spatial information for set task requirements. Functions would be carried out under limited supervision and within organisational guidelines.

Application of the Unit

This unit of competency supports the application of organisational, sound communication and basic problem-solving skills, the ability to demonstrate initiative and enterprise, and the use of technology. The skills and knowledge acquired upon completion of this unit would apply to the needs of employees in supporting positions for surveying, town planning, cartography, mapping and geographic information systems (GIS).

Licensing/Regulatory Information

No licensing, legislative and regulatory requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|---|-----------------------------------|-----|---|
| 1 | Store spatial data. | 1.1 | <i>Data index</i> is created to assist in retrieval and storage according to organisational spatial data and legal requirements. |
| | | 1.2 | <i>Administrative and legal requirements</i> for data storage are complied with and recorded. |
| | | 1.3 | Data is recorded in index according to <i>organisational guidelines</i> . |
| | | 1.4 | Spatial data is backed up according to organisational guidelines. |
| | | 1.5 | <i>Method of spatial data storage</i> is selected according to organisational guidelines. |
| | | 1.6 | <i>Distribution method</i> is determined to ensure that the most current data is available. |
| 2 | Access and retrieve spatial data. | 2.1 | Indexing system is used to locate spatial data source. |
| | | 2.2 | Spatial data is translated into required format where necessary. |
| 3 | Manage contingencies. | 3.1 | Reasonable <i>contingencies</i> and possible solutions to anticipated problems are considered in the development of a <i>risk management plan</i> . |
| | | 3.2 | Contingency plans are implemented where necessary. |

Required Skills and Knowledge

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills

- communication skills to:
 - discuss vocational issues effectively with colleagues
 - impart knowledge and ideas through oral, written and visual means
- computer skills to network
- literacy skills to:
 - assess and use workplace information
 - read and interpret datums and projections
 - read and record data and write routine reports
 - research and access routine sources of spatial data
- numeracy skills to:
 - record and interpret statistics
 - record with accuracy and precision
 - undertake computations
- organisational skills to:
 - maintain information systems
 - prioritise activities to meet contractual requirements
- spatial skills to:
 - archive and retrieve spatial data
 - perform spatial data management and manipulation
 - manage files

Required knowledge

- classification systems, processes and products linked to specification
- corporate information database environment
- data retrieval methods, querying and browsing
- downloading global navigation satellite system (GNSS) and GIS
- network and security guidelines
- OHS requirements relating to safe storage arrangements
- organisational storage index system
- reference systems and their relationship to each other
- risk management principles as applied to spatial data storage
- spatial data formats

- spatial data management practices
- spatial data structure requirements
- storage media
- spatial reference systems

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Overview of assessment This unit of competency could be assessed on its own or in combination with other units relevant to the job function, for example CPPSIS4021A Maintain spatial systems, CPPSIS4024A Collect and set out spatial data, CPPSIS4025A Collect basic GNSS data, and CPPSIS4034A Maintain spatial data.

Critical aspects for assessment and evidence required to demonstrate competency in this unit A person who demonstrates competency in this unit must be able to provide evidence of:

- knowledge of spatial data format and reference systems
- applying data security and backup measures
- creating a workable index system
- managing contingencies
- retrieving spatial data.

Specific resources for assessment Resource implications for assessment include access to:

- assignment instructions, work plans and schedules, policy documents and duty statements
- assessment instruments, including personal planner and assessment record book
- registered training provider of assessment services
- relevant guidelines, regulations and codes of practice
- suitable venue and equipment.

Access must be provided to appropriate learning and assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

Context of assessment Holistic: based on the performance criteria, evidence guide, range statement, and required skills and knowledge.

Method of assessment Demonstrated over a period of time and observed by the assessor (or assessment team working together to conduct the assessment).

Demonstrated competency in a range of situations, which may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace.

Obtained by observing activities in this field and reviewing induction information. If this is not practicable,

observation in realistic simulated environments may be substituted.

Guidance information for assessment

Assessment requires that the clients' objectives and industry expectations are met. If the clients' objectives are narrowly defined or not representative of industry needs, it may be necessary to refer to portfolio case studies of a variety of surveying and spatial information services requirements to assess competency.

Oral questioning or written assessment and hypothetical situations (scenarios) may be used to assess underpinning knowledge (in assessment situations where the candidate is offered a preference between oral questioning or written assessment, questions are to be identical).

Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff.

All practical demonstration must adhere to the safety and environmental regulations relevant to each State or Territory.

Where assessment is for the purpose of recognition (recognition of current competencies [RCC] or recognition of prior learning [RPL]), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time.

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge.

Assessment processes will be appropriate to the language and literacy levels of the candidate and any cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

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 in the performance criteria is detailed below. Add any 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.

- Data index*** may include:
- classification systems and process linked to product specification.
- Administrative and legal requirements*** may include:
- access protocols and obligations
 - Australian standards, quality assurance and certification requirements
 - award and enterprise agreements

- licensing arrangements
 - organisational protocols for accessing physical, financial and human resources
 - reimbursements
 - Indigenous considerations
 - relevant codes of practice
 - relevant state, territory and federal legislation affecting organisational operations, including:
 - anti-discrimination and diversity
 - copyright and digital copyright
 - industrial relations
 - royalty obligations
 - title search processes
 - understanding of company OHS guidelines.
- Organisational guidelines*** may be included in:
- electronic format
 - equipment specifications
 - operator manuals
 - printed product instructions and information
 - spatial database
 - spatial reference systems
 - warranty documents.
- Method of spatial data storage*** may include:
- digital
 - hard copy.
- Distribution method*** may include:
- network access to an authoritative data source that can accommodate storage in digital or hard copy format.
- Contingencies*** may include:
- duplicates
 - fireproof storage
 - insurance
 - media malfunction
 - media and formats becoming outdated
 - offsite storage
 - storage in different media.
- Risk management plan*** may include:
- effective management
 - budgetary constraints
 - timelines
 - clearly identified project stages
 - sound internal audit processes.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.