



Australian Government

**CPPSIS5059A Determine suitable
information sources to create new spatial
datasets**

Release 1

CPPSIS5059A Determine suitable information sources to create new spatial datasets

Modification History

Unit revised and not equivalent to CPPSIS5029A Determine suitable information sources to create new spatial datasets

Element structure and performance criteria 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 investigate and determine suitable sources of information for the creation of new spatial datasets. It requires the ability to apply wide-ranging specialised technical, creative and conceptual skills. It also requires a broad knowledge of spatial datasets and accountability for personal and group outcomes. Functions would be carried out within organisational guidelines.

Application of the Unit

This unit of competency supports high-level project management activity in the surveying and spatial information services (SSIS) industry sector. It requires the application of planning, organisational, high-level communication, negotiation and problem-solving skills; the ability to demonstrate initiative and enterprise; interpreting technical documentation; and an understanding of technology. The skills and knowledge acquired upon completion of this unit would support the needs of employees in surveying, cartography, town planning, mapping and geographic information systems.

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 | Identify potential sources of spatial data. | 1.1 | Extent, content, intended use, accuracy, precision and format of required spatial datasets are clearly identified from the specifications provided by the <i>suppliers of spatial data</i> . |
| | | 1.2 | A search is undertaken via a <i>range of media</i> to identify sources of information. |
| | | 1.3 | <i>Metadata</i> for potential spatial datasets is obtained to assist in determining the most appropriate spatial data source. |
| | | 1.4 | Potential sources of spatial data are listed according to <i>organisational guidelines</i> . |
| 2 | Assess spatial data availability and suitability. | 2.1 | Spatial datasets are assessed for <i>suitability</i> against the specifications. |
| | | 2.2 | <i>Availability</i> of suitable data is verified with potential suppliers. |
| | | 2.3 | <i>Constraints</i> on the use of spatial data are assessed against specifications. |
| | | 2.4 | Sample data is obtained and assessed to further ensure its suitability, where required. |
| | | 2.5 | Maintenance requirements are determined to ensure currency. |

- 3 Document spatial data assessment.
 - 3.1 A written assessment of data availability including cost, licensing conditions and constraints on use is completed according to organisational guidelines.
 - 3.2 A written assessment of the suitability of available data, including comparison with quality, accuracy, standards and format requirements is completed according to organisational guidelines.

Required Skills and Knowledge

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

Required skills

- communication skills to:
 - consult effectively with clients and colleagues
 - impart knowledge and ideas through oral, written and visual means
- computer skills to develop business documentation
- literacy skills to:
 - assess, develop and use workplace information
 - read and write key performance reports, including technical reports
 - research and evaluate
- numeracy skills to:
 - estimate costs
 - analyse errors
 - conduct image analysis
 - interpret and analyse statistics
 - record with accuracy and precision
 - undertake computations
- organisational skills to:
 - coordinate technical and human resource inputs to research activities
 - prioritise activities to meet contractual requirements
- project management skills to:
 - identify sources of new spatial data
 - coordinate activity and document practices
- spatial skills to:
 - exercise precision and accuracy in all spatial operations
 - archive and retrieve spatial data
 - manage and manipulate spatial data
 - manage files
 - solve problems relating to height, depth, breadth, dimension, direction and position in actual operational activity and virtual representation
 - understand implications of height, depth, breadth, dimension and position to actual operational activity and virtual representation
- time-management skills to source and create new spatial datasets within designated timeframes

Required knowledge

- copyright and ownership issues associated with spatial data
- data quality integrity
- existing spatial datasets and dataset sources
- information management
- metadata
- organisational policies and guidelines, such as OHS guidelines
- relevant legislative, statutory and industry requirements and standards
- resource management processes
- risk analysis principles
- spatial data formats, handling and structure
- spatial referencing systems
- working within budgetary constraints

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 CPPSIS5036A Integrate spatial datasets.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>A person who demonstrates competency in this unit must be able to provide evidence of:</p> <ul style="list-style-type: none">• knowledge of copyright and ownership constraints• determining data requirements• evaluating suitability of available data against project specifications• identifying sources of data.
Specific resources for assessment	<p>Resource implications for assessment include access to:</p> <ul style="list-style-type: none">• assessment instruments, including personal planner and assessment record book• assignment instructions, work plans and schedules, policy documents and duty statements• registered training provider of assessment services• relevant guidelines, regulations and codes of practice• suitable venue and equipment. <p>Access must be provided to appropriate learning and assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.</p>
Context of assessment	Holistic: based on the performance criteria, evidence guide, range statement, and required skills and knowledge.
Method of assessment	<p>Demonstrated over a period of time and observed by the assessor (or assessment team working together to conduct the assessment).</p> <p>Demonstrated competency in a range of situations, that may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace.</p> <p>Obtained by observing activities in the field and reviewing induction information. If this is not practicable, observation in realistic simulated environments may be substituted.</p>

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.

Suppliers of spatial data may include:

- brokers
- government agencies
- internal suppliers

- Range of media*** may include:
- private suppliers.
 - computer-based storage
 - internet spatial data directories
 - service authorities' indexes
 - supplier catalogues.
- Metadata*** may include:
- summarised information about a spatial dataset that describes the characteristics of the dataset, including:
 - availability
 - conditions of use
 - coordinate system
 - currency
 - date of acquisition
 - quality
 - source
 - spatial data acquisition methodologies
 - version control.
- Organisational guidelines*** may include:
- code of ethics
 - company policy
 - legislation relevant to the work or service function
 - manuals
 - OHS policies and procedures
 - personnel practices and guidelines outlining work roles and responsibilities.
- Suitability*** may include:
- assessment of whether the spatial data will meet the required specification of:
 - accuracy
 - completeness
 - coverage
 - density
 - logical consistency.
- Availability*** includes:
- assessment of whether the spatial data can be obtained and used for client requirements.
- Constraints*** may include:
- administrative
 - copyright
 - financial
 - legal and legislative
 - technical limitations.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.