



Australian Government

CPPSIS3015A Collect spatial data

Release 1

CPPSIS3015A Collect spatial data

Modification History

Unit revised and not equivalent to CPPSIS3005A Collect basic spatial data

New unit title

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 collect spatial data through a range of methods. It requires the ability to work with others in performing set task requirements within deadlines. It also requires the ability to perform a range of basic activities in the use of information technology and equipment within a spatial information handling framework. Functions would be carried out under supervision, often in a team environment, and within organisational guidelines.

Application of the Unit

This unit of competency supports the application of teamwork, verbal and written workplace communication skills, and the use of technology. The skills and knowledge acquired upon completion of this unit would support the needs of employees in the surveying and spatial information services (SSIS) industry sector in positions such as field coordination, data collection and administration.

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 | Prepare for the task. | 1.1 | Requirements for the task are clarified with <i>appropriate persons</i> . |
| | | 1.2 | Equipment, supplies and <i>SIS technologies</i> are selected according to task requirements. |
| | | 1.3 | Equipment is checked to ensure it is in safe working order. |
| 2 | Gather basic data. | 2.1 | Data and <i>attributes</i> are collected using methodologies detailed in a <i>data collection plan</i> . |
| | | 2.2 | <i>Metadata</i> is documented according to accepted industry standards. |
| | | 2.3 | Discrepancies between specifications and actual activities are identified, recorded and reported. |
| | | 2.4 | <i>Administrative and legal requirements</i> for data collection are complied with and recorded. |
| | | 2.5 | Assistance is given to <i>relevant personnel</i> assisting in the data collection process. |
| | | 2.6 | <i>OHS requirements</i> are planned for and adhered to. |
| 3 | Use equipment. | 3.1 | Supervisor guidance is sought on the selection of appropriate equipment. |
| | | 3.2 | Appropriate equipment is operated according to the task requirements and <i>manufacturer specifications</i> . |

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| | | 3.3 | Safety requirements are adhered to at all times. |
| | | 3.4 | Data is recorded correctly and according to specifications. |
| 4 | Maintain equipment. | 4.1 | Supervisor guidance is sought on the manner in which equipment is to be maintained. |
| | | 4.2 | Operational maintenance of equipment is undertaken according to organisational guidelines. |
| | | 4.3 | Contingencies that may affect equipment usage are reported. |
| | | 4.4 | Unsafe or faulty equipment is reported and referred for repair. |
| | | 4.5 | Tools and equipment are stored safely in appropriate locations and according to manufacturer specifications. |
| 5 | Contribute to finalising the collection process. | 5.1 | Required documentation is completed according to organisational requirements. |
| | | 5.2 | All data and documentation are stored 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:
 - discuss vocational issues effectively with colleagues
 - impart knowledge and ideas through oral, written and visual means
- computer skills to develop business documentation
- literacy skills to:
 - assess and use workplace information
 - read and record data
 - read and interpret datums and projections
- numeracy skills to:
 - accurately record and collate
 - undertake basic computations
- organisational skills to prioritise daily activities
- spatial skills to:
 - perform basic spatial and aspatial data collection in an accurate manner
 - use spatial information technology to perform basic data collection
- work effectively as part of a team
- use a range of equipment in the field safely, accurately and as required for the task

Required knowledge

- characteristics, capabilities and limitations of tools, technology and equipment used
- data collection methods and equipment suitable to spatial data, including electronic
- organisational policies and guidelines relating to data storage and retrieval practices
- OHS guidelines relating to operating computers
- processes for recording metadata
- spatial and aspatial data acquisition methods, including using electronic equipment

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.
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: • selecting, using and maintaining equipment for spatial data collection • gathering spatial data • knowledge of metadata recording processes.
Specific resources for assessment	Resource implications for assessment include access to: • 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. 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, that may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace. Obtained by observing activities in the field and reviewing induction information. If this is not practicable, observation in realistic simulated environments may be substituted.
Guidance information for	Assessment requires that the clients' objectives and

assessment

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.

Appropriate persons may include:

- assessors
- colleagues
- managers
- supervisors
- trainers.

SIS technologies may include:

- data recording equipment
- digital imagery
- handheld global navigation satellite system (GNSS)
- maps (digital or hard copy)
- measuring instruments
- non-navigational aids relevant to duties, including:
 - compass
 - clinometer
 - distance measuring wheel
 - personal digital assistant
 - personal computer-based digitising boards
 - tools
 - ultra high frequency (UHF) radio.

Attributes are properties associated with a dataset and may include:

- condition
- date
- size
- type.

Data collection plan may include:

- data logging
- digitising theodolite
- GNSS scanning
- photogrammetry
- remote sensing
- sonar
- survey
- total station.

Metadata is 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.

Administrative and legal requirements may include:

- Australian standards, quality assurance and certification requirements
- award and enterprise agreements
- company OHS guidelines
- licensing arrangements
- relevant codes of practice
- relevant state, territory or federal legislation that

- affects organisational operations, including:
- anti-discrimination and diversity
 - industrial relations.
- Relevant personnel** may include:
- colleagues
 - registered surveyors
 - site personnel
 - staff or employee representatives
 - supervisors or line managers
 - suppliers
 - users.
- OHS requirements** may include:
- Australian standards
 - development of site safety plan
 - identification of potential hazards
 - inspection of work sites
 - training staff in OHS requirements
 - use of personal protective equipment and clothing.
- Manufacturer specifications** may be found in:
- electronic format
 - equipment specifications
 - operator manuals
 - printed product instructions and information
 - spatial database
 - warranty documents.
- Operational maintenance tasks** may include:
- adjusting
 - cleaning
 - lubricating
 - tightening
 - maintaining battery
 - simple repairs.
- Contingencies** may include:
- adverse weather
 - equipment failure.
- Required documentation** may include:
- accident and injury reports
 - authority/approval documentation
 - meeting reports
 - records and reports of communication
 - reimbursements.
- 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.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.