



Australian Government

CPPSIS4026A Read and interpret image data

Release 1

CPPSIS4026A Read and interpret image data

Modification History

Unit revised and not equivalent to CPPSIS4006A Read and interpret basic image data

New unit title

Terminology updated

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 interpret information from various types of image data. It requires the ability to identify, analyse and evaluate image data to fulfil project 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 accuracy, problem-solving and self-management skills, and an understanding of technological images. 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.

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 | Apply understanding of image data. | 1.1 | Basic principles of <i>image data</i> are applied in the context of the <i>project objective</i> and <i>project survey area</i> . |
| | | 1.2 | Possible sources of image data are identified. |
| | | 1.3 | Properties of different types of image data are identified. |
| | | 1.4 | <i>Constraints</i> of different types of image data are identified. |
| | | 1.5 | Spatial reference systems are accessed as required. |
| | | 1.6 | Process of obtaining ground <i>control for photogrammetric mapping</i> is reviewed. |
| 2 | Calculate information from image data. | 2.1 | Scale of digital and hard copy image data is determined. |
| | | 2.2 | Problems involving acquired image data are solved according to <i>organisational policies and principles</i> . |
| 3 | Interpret image data. | 3.1 | Information from acquired image data is used to fulfil project objectives. |
| | | 3.2 | Data image problems are resolved where possible. |

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| 4 | Document activity. | 4.1 <i>Required documentation</i> is completed according to organisational policies. |
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Required Skills and Knowledge

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

Required skills

- analytical skills to decipher image data
- communication skills to:
 - discuss vocational issues effectively with colleagues
 - impart knowledge and ideas through oral, written and visual means
- computer skills to:
 - complete image data documentation
 - conduct ground control for the photogrammetric process
 - interpretation of technical task requirements
- literacy skills to:
 - assess and use workplace information
 - read and interpret datums and projections
 - read and record data and write technical 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:
 - prepare and administer documentation
 - prioritise activities to meet contractual requirements
- quality assurance skills
- spatial skills to:
 - interpret basic data imagery
 - archive and retrieve spatial data
 - perform spatial data management and manipulation
 - solve basic problems relating to height, depth, breadth, dimension and direction

Required knowledge

- data formats
- information management strategies
- key characteristics of image data
- photogrammetric control requirements with regard to image data
- quality assurance principles
- relevant industry requirements and standards relating to spatial data
- spatial reference systems
- surveying requirements for capturing various sources of data

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.
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: - accessing and interpreting information to identify the components of image data to be measured and monitored - planning basic resources - performing measurements - writing reports and completing documentation - knowledge of key features of image data.
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

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.

Image data may include:

- digital
- hard copy.

Project objectives may

- acquiring intellectual property

- include:
- aims of project
 - evaluation criteria
 - milestones
 - performance indicators
 - project implementation
 - quality standards
 - return on investment
 - risk management.
 - targets.
- Project survey area** may include:
- aerial photographs
 - other forms of digital data in the horizontal or vertical plane.
- Constraints** may include:
- resource availability
 - specific survey requirement
 - time.
- Control for photogrammetric mapping** may include:
- pre-marked targets
 - primary ground control
 - post-market targets
 - secondary control.
- Organisational policies and principles** may include:
- code of ethics
 - legislation relevant to the work or service function
 - manuals
 - OHS practices, policies and procedures
 - personnel practices and guidelines outlining work roles and responsibilities
 - quality assurance principles.
- Required documentation** may include:
- final product report
 - project reports.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.