



Australian Government

CPPSIS6042A Coordinate information gathering and GIS development

Release 1

CPPSIS6042A Coordinate information gathering and GIS development

Modification History

Version	Comment
1	This version first released with CPP07 Property Services Training Package Version 12.

Unit Descriptor

This unit of competency specifies the outcomes required to coordinate information gathering and develop geographic information systems (GIS) to produce specified data outcomes for geographic information.

Application of the Unit

This unit of competency supports the application of planning, organising, monitoring, problem-solving, error analysis and accuracy; designing and interpreting technical documentation; and a practical understanding of technology. The skills and knowledge acquired on completion of this unit would support the needs of employees in surveying and spatial information services (SSIS).

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 | Provide information to users and monitor usage. | 1.1 | Work is planned to ensure information is provided to <i>end users</i> in a timely manner. |
| | | 1.2 | Use of information and <i>data</i> is audited and changes to procedures and output are recommended to maximise benefits from use of GIS. |
| | | 1.3 | Information on availability of data is disseminated to appropriate personnel according to <i>industry standards</i> . |
| 2 | Coordinate use of GIS. | 2.1 | User input into system is monitored to ensure data is not duplicated. |
| | | 2.2 | Data directories are developed and maintained so that current information is readily available to end users. |
| 3 | Provide technical support, advice and assistance | 3.1 | <i>Technical support</i> and advice on data content and suitability for particular use are provided on request. |
| | | 3.2 | Individuals or teams are assisted to achieve results within timeframe. |
| | | 3.3 | Opportunities are identified to improve systems and processes, and suggestions are provided to relevant personnel. |
| | | 3.4 | GIS expertise is used to provide technical support to other systems. |

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|---|--|-----|--|
| 4 | Assist with provision of training. | 4.1 | Assistance is provided in determining technical training needs of personnel. |
| | | 4.2 | Input is given in developing courses and teaching materials for education and training. |
| | | 4.3 | Work procedures and work instructions are prepared as required within areas of technical competence. |
| | | | |
| 5 | Participate in policy and standards development. | 5.1 | Contribution is made to the development of policy relating to use of GIS within an organisation. |
| | | 5.2 | Appropriate information from internal and external sources and networks is accessed to maintain awareness of industry standards, industry developments and quality improvement processes. |
| | | 5.3 | Contributions are made to further development of appropriate standards across the organisation and the industry. |
| | | 5.4 | Information sources are shared with other individuals and organisations to assist in negotiating solutions to common problems. |
| | | 5.5 | Joint projects are conducted as appropriate to improve validity of data . |

Required Skills and Knowledge

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

Required skills

- analytical skills to analyse GIS system options and application architecture
- communication skills to:
 - consult effectively with clients and colleagues
 - impart knowledge and ideas through oral, written and visual means
 - train personnel and end users
- initiative and enterprise skills to:
 - negotiate with clients
 - interpret project requirements
 - translate requirements into design
- literacy skills to:
 - assess, develop and use workplace information
 - prepare and manage documentation and information flow
 - read and write specification reports, including technical reports
 - research and access information in order to source geographic information
- numeracy skills to:
 - analyse errors
 - perform mental calculations
 - record with accuracy and precision
- planning and organising skills to:
 - organise input into training
 - plan and prioritise activities to meet contractual requirements
 - conduct project activity
 - manage information
- self-management skills to:
 - maintain attention to detail
 - manage project activity
 - meet deadlines
- spatial skills to:
 - archive and retrieve spatial data
 - capture geographic information
 - manage and manipulate spatial data
- technology skills to use computers to develop business documentation

Required knowledge

- data management processes
- database structures, including the relationship of spatial features of database
- GIS software, such as:
 - ArcInfo
 - GenaMap
 - MapInfo
- GIS information-gathering processes
- legislation relating to:
 - appropriate Acts
 - copyright
 - freedom of information
 - intellectual property
 - trade practices
- organisational and industry policies and practices relating to:
 - custodianship of data
 - industry practices, policies and standards
 - pricing and access
 - statutory requirements
- potential inaccuracies and problems relating to GIS
- requirements relevant to coordinating information gathering and GIS development:
 - accuracy and precision requirements
 - data formats

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 CPPSIS6043A Develop, monitor and maintain geographic information systems and CPPSIS6044A Manage GIS 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:

- accessing information relating to GIS policy and networks, from internal and external sources
- monitoring and reviewing use of GIS
- training end users and GIS personnel
- providing technical support and advice
- knowledge of GIS systems.

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, which 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 SIS 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.

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.

End users may include:

- elected members
- general public
- land information authorities
- local government
- real estate agents
- residents
- state and federal government departments
- statutory bodies, including land titles office
- transport companies
- utilities.

Data may include:

- computer records
- graphical
- user application programs, such as:
 - accounting packages
 - databases
 - spreadsheets
- hard copy documents, such as:
 - books

- maps
- plans
- work registers
- information, such as:
 - census data
 - community facilities
 - demographic data
 - local government facilities
 - organisational locations
 - property classifications
 - property boundaries
 - property ownership
 - transport routes
 - utilities
 - zonings
 - spatial
 - textual.

- Industry standards** may include:
- confidentiality
 - informal practices not detailed in manuals or standard operating procedures
 - privacy
 - protocols.
- Technical support** may include:
- GIS support in importing and analysing raster imagery
 - user support.
- Training** may include:
- demonstration
 - formal internal or external
 - in-house
 - mentoring
 - online
 - specified reading.
- Input** may include:
- accessing appropriate competency standards or curriculum
 - assisting with fieldwork
 - preparing draft instructions or support material
 - reading manuals
 - using drawings and teaching aids.
- Internal and external sources and networks** may include:
- internal:
 - aerial photographs
 - deed books
 - plans
 - surveys
 - transaction books
 - external:
 - GIS sites
 - GIS vendors
 - government departments or authorities
 - land titles office
 - local government
 - orthophotography
 - private industry
 - products
 - property agencies
 - street directory companies
 - surveys
 - telecommunications industry
 - water authorities
 - user groups
 - utility organisations

- Validity of data** may include:
- preparation of cross-sections and plans, with all information included
 - professional or technical literature
 - survey data demographic requirements.
 - completeness
 - currency
 - integrity
 - relationship to project
 - trueness to its intent
 - use to end user.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.