

**Draft 0.1**

This is a draft update to CPPSIS5036 Integrate spatial datasets:  
<https://training.gov.au/Training/Details/CPPSIS5036>

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.

Range of Conditions (below) has not been added to unit. TAG please assess whether/how to add it:

Appropriate persons must include at least two of the following:

- client
- end user
- staff
- manager.

Metadata must include at least four of the following:

- availability
- conditions of use
- coordinate system
- currency
- custodian
- data accuracy
- data description
- date of acquisition
- licence
- quality
- source
- spatial data acquisition methodologies
- version control.

## Unit of Competency

### CPPSUR5036 Integrate spatial datasets

#### Modification history

Release	Comments
1	Replaces superseded equivalent CPPSIS5036A Integrate spatial datasets. This version first released with CPP Property Services Training Package Version 3
	Supersedes and is equivalent to CPPSIS5036 Integrate spatial datasets

#### Application

This unit specifies the skills and knowledge required to use technology and software applications to integrate spatial datasets for the purpose of providing spatially referenced information. The unit covers obtaining spatial and attribute data, creating datasets, and linking spatial and attribute data to meet client specifications for spatial data solutions.

The unit also covers analysing and compiling metadata sets, assessing geographic coverage, establishing filtering parameters, and checking and validating the accuracy and integrity of data. The unit requires the ability to consult with appropriate persons to define project requirements and report outcomes and use database querying operations and techniques.

The unit supports those who work in a lead role in a surveying or spatial information services team in areas such as surveying, cartography, town planning, mapping or geographic information systems (GIS).

No licensing, legislative, regulatory, or certification requirements apply to this unit of competency at the time of publication.

#### Prerequisite Unit

None

#### Unit Sector

Surveying and spatial information services

#### Elements and Performance Criteria

1. Prepare to integrate datasets.	1.1 Identify and analyse client specifications to determine specific needs and required outcomes. 1.2 Identify requirements for spatial data and constraints through further consultation with appropriate persons and record outcomes according to organisational requirements
2. Obtain spatial and attribute data.	2.1 Used metadata to determine sources of data consistent with project specifications. 2.2 Obtain and check data for integrity and quality according to project specifications and organisational requirements. 2.3 Assess geographic coverage for completeness according to project specifications. 2.4 Compile metadata set based on sourced spatial data. 2.5 Refer exception reports on non-conforming items to appropriate persons according to organisational requirements.
3. Create resultant spatial datasets.	3.1 Establish filtering parameters in line with scientific accuracy, redundancy and project specifications.

	3.2 Translate spatial data into a format that satisfies project specifications. 3.3 Populate spatial datasets with edited spatial data according to project specifications and organisational requirements
4. Link spatial and attribute data.	4.1 Identify method required for referencing location of attribute data according to organisational requirements. 4.2 Link spatial and attribute data according to client specifications and organisational requirements. 4.3 Carried out spatial queries on spatial data to access attribute data according to project specifications.
5. Test and validate spatial datasets.	5.1 Determine and implement test queries to ensure spatial datasets meet project specifications and organisational requirements. 5.2 Check and validate accuracy and integrity of spatial data to ensure correctness of links, and resolve or escalate identified problems where required according to organisational requirements. 5.3 Complete documentation according to organisational requirements and notify appropriate persons of project results.

### Foundation Skills

this section describes those language, literacy, numeracy and employment skills that are essential to performance in this unit, but not explicit in the performance criteria.

- initiative and enterprise skills to design spatial data solutions to meet client specifications and organisational requirements
- numeracy skills to analyse and compare metadata and attribute ranges
- oral communication skills to ask questions to clarify client and project requirements
- reading skills to interpret field records, images, and detailed technical descriptions of spatial data
- writing skills to record measurements with accuracy and precision
- technology skills to use a computer and software to manipulate and compare spatial data
- problem-solving skills to identify exceptions and non-conformances within datasets.

### Unit Mapping Information

Supersedes and is equivalent to CPPSIS5036 Integrate spatial datasets

### Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

## Assessment Requirements for CPPSUR5036 Integrate spatial datasets

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### Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by:

- integrating spatial datasets for the purpose of providing spatially referenced information for two different projects.

While integrating the above spatial datasets, the candidate must:

- select and use industry-accepted software applications to obtain spatial data, create datasets, and link attribute data
- comply with organisational requirements while:
  - communicating with clients and other appropriate persons
  - ensuring quality of datasets
  - recording data and completing documentation
  - working safely when using screen-based equipment
- comply with legal requirements relating to data privacy and information copyright when accessing and using spatial data
- devise and implement functional solutions to spatial datasets
- exercise precision when editing, processing, comparing, manipulating and archiving spatial data
- perform querying techniques to access attribute data and test and validate spatial data
- prepare exception reports to identify non-conforming data
- reference and link the location of attribute data
- translate spatial data into industry-accepted formats
- use approved methods for assessing accuracy and integrity of spatial data and resolving errors
- use filtering parameters, including attribute range accuracy and geographic location to establish accuracy and redundancy of data.

### Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- data acquisition methods
- database querying techniques and languages
- key features of spatial data
- legal requirements for accessing and manipulating spatial data, including copyright
- methods for comparing and checking different spatial datasets
- organisational requirements relating to:
  - work health and safety
  - recording data
  - completing documentation

- principles of data acquisition, including photogrammetry, remote sensing, terrestrial survey and hydrography
- quality guidelines regarding the validity of spatial data
- software applications used to compute spatial datasets
- key features of spatial coordinate and reference systems
- spatial data formats and structures
- spatial database design tools
- key characteristics of spatial database operation
- spatial dataset integration methods, including role of scale in dataset integration.

### Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

The following must be present and available to learners during assessment activities:

- equipment:
  - computer with software appropriate for integrating spatial datasets
- specifications:
  - organisational policies, procedures and legislation relating to:
  - work health and safety
  - data privacy and information copyright
- physical conditions:
  - access to equipped work station
- relationships with team members and supervisor:
  - working in a team.

Timeframe:

- as specified by task and organisational requirements.

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