



**Australian Government**

# **CPPSIS5036 Integrate spatial datasets**

**Release: 1**

# CPPSIS5036 Integrate spatial datasets

## Modification History

Release 1.

Replaces superseded equivalent CPPSIS5036A Integrate spatial datasets.

This version first released with CPP Property Services Training Package Version 3.

## Application

This unit of competency specifies the outcomes 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 endorsement.

## Pre-requisite Unit

Nil

## Unit Sector

Surveying and spatial information services

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

- |                                   |  |
|-----------------------------------|--|
| 1. Prepare to integrate datasets. | 1.1. Client specifications are identified and analysed to determine specific needs and required outcomes.  |
|                                   | 1.2. Requirements for spatial data and constraints are identified through further consultation with <b><i>appropriate persons</i></b> and outcomes are recorded according to |

organisational requirements.

2. Obtain spatial and attribute data.
  - 2.1. *Metadata* is used to determine sources of data consistent with project specifications.
  - 2.2. Data is obtained and checked for integrity and quality according to project specifications and organisational requirements.
  - 2.3. Geographic coverage is assessed for completeness according to project specifications.
  - 2.4. Metadata set is compiled based on sourced spatial data.
  - 2.5. Exception reports on non-conforming items are referred to appropriate persons according to organisational requirements.
3. Create resultant spatial datasets.
  - 3.1. Filtering parameters are established in line with scientific accuracy, redundancy and project specifications.
  - 3.2. Spatial data is translated into a format that satisfies project specifications.
  - 3.3. Spatial datasets are populated with edited spatial data according to project specifications and organisational requirements.
4. Link spatial and attribute data.
  - 4.1. Method required for referencing location of attribute data is identified according to organisational requirements.
  - 4.2. Spatial and attribute data are linked according to client specifications and organisational requirements.
  - 4.3. Spatial queries are carried out on spatial data to access attribute data according to project specifications.
5. Test and validate spatial datasets.
  - 5.1. Test queries are determined and implemented to ensure spatial datasets meet project specifications and organisational requirements.

- 5.2. Accuracy and integrity of spatial data are checked and validated to ensure correctness of links, and identified problems are resolved or escalated where required according to organisational requirements.
- 5.3. Documentation is completed according to organisational requirements and appropriate persons are notified of project results.

## Foundation Skills

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

<b>Skill</b>	<b>Performance feature</b>
Initiative and enterprise skills to:	<ul style="list-style-type: none"><li>• design spatial data solutions to meet client specifications and organisational requirements.</li></ul>
Numeracy skills to:	<ul style="list-style-type: none"><li>• analyse and compare metadata and attribute ranges.</li></ul>
Oral communication skills to:	<ul style="list-style-type: none"><li>• ask questions to clarify client and project requirements.</li></ul>
Reading skills to:	<ul style="list-style-type: none"><li>• interpret field records, images, and detailed technical descriptions of spatial data.</li></ul>
Writing skills to:	<ul style="list-style-type: none"><li>• record measurements with accuracy and precision.</li></ul>
Technology skills to:	<ul style="list-style-type: none"><li>• use a computer and software to manipulate and compare spatial data.</li></ul>
Problem-solving skills to:	<ul style="list-style-type: none"><li>• identify exceptions and non-conformances within datasets.</li></ul>

## Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

***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 Mapping Information

CPPSIS5036A Integrate spatial datasets

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>