



**Australian Government**

# **Assessment Requirements for CPPSIS4035 Apply GIS software to solve spatial data problems**

**Release: 1**

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## **Modification History**

Release 1.

Replaces superseded equivalent CPPSIS4035A Apply GIS software to problem-solving techniques.

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

## **Performance Evidence**

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria, foundation skills and range of conditions of this unit. The person must also use geographic information system (GIS) software applications to integrate data and solve spatial data problems for two different tasks.

While undertaking the above tasks, the person must:

- combine spatial layers data, including:
  - raster, including aerial and terrestrial photography and satellite imagery in digital format
  - vector overlay
- comply with organisational requirements for documentation and reporting relating to:
  - audit trails
  - naming standards
  - templates
  - version control
- comply with organisational requirements to work safely when using the equipment specified in the assessment conditions
- comply with legal and ethical requirements for producing reports based on spatial data analysis
- display spatial information using entities and attributes, including:
  - arcs
  - circles
  - colour
  - hatch
  - layer
  - level
  - lines, including type and width
  - symbology
  - text
- manage and manipulate a range of spatial data, including:

- digital
- hard copy
- image
- text
- raster
- vector
- operate a range of GIS software to perform entity and attribute queries and explore datasets
- use geospatial techniques, including:
  - buffer
  - clip
  - dissolve
  - intersect
  - merge union
  - overlay.

## Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- legal requirements for accessing, manipulating, reporting and archiving digital and hard copy spatial data, including data privacy and information copyright
- methods for using univariate statistics and charting, including:
  - arithmetic mean, median and mode
  - histograms that illustrate the concepts of normal and other distributions
  - maximum and minimum
  - range
  - standard deviation
  - variance
- methods for validating test results to identify systematic distortions in accuracy of information
- printing and image formats for map production
- querying and browsing techniques for obtaining information from databases and solving problems
- spatial data storage technology
- spatial overlay techniques
- key features of spatial reference systems.

## Assessment Conditions

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

- equipment:

- computer with access to GIS software applications
- printer and other hardware necessary for work tasks
- specifications:
  - organisational policies and procedures 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.

### Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

## Links

Companion Volume implementation guides are found in VETNet -

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