Australian Government

# CPPSSI5064 Conduct complex spatial data analysis

**Release: 1**

# CPPSSI5064 Conduct complex spatial data analysis

## Modification History

Release 1   This version first released with CPP Property Services Training Package Release 12.0.

This unit supersedes and is equivalent to CPPSIS5064 Coordinate GIS data manipulation and analysis.

## Application

This unit specifies the skills and knowledge required to coordinate spatial data manipulation and analysis to meet task specifications. It includes analysing task needs and geographic information system (GIS) data format requirements, assessing potential analysis tools and models, and identifying the limitations of analysis results. The unit also includes verifying data source integrity, manipulating and analysing data, and preparing results to inform decision-making.

This unit is suitable for skilled surveying technicians and skilled spatial information system (SIS) technicians who use a broad range of cognitive, technical and communication skills to select and apply methods and technologies to analyse information and provide solutions to sometimes complex surveying/spatial information problems.

Surveying and spatial information skills are applied in a range of industry contexts, including town planning, civil construction, mining, engineering, health, agriculture and defence.

All work must be carried out to comply with workplace procedures, in accordance with relevant state/territory regulations that govern surveying work, as well as work health and safety (WHS) legislation and regulations that apply to the workplace.

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

## Pre-requisite Unit

Nil.

## Unit Sector

Surveying and Spatial Information Services

## Elements and Performance Criteria

| Elements describe the essential outcomes. | Performance criteria describe what needs to be done to demonstrate achievement of the element. |
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| 1 | Plan spatial data manipulation and analysis. | 1.1 | Determine task requirements in consultation with appropriate persons. |
| | | 1.2 | Determine parameters and assumptions for data manipulation and analysis according to task specifications. |
| | | 1.3 | Review and select tools, models and applications for applicability to task. |
| | | 1.4 | Prepare work-flow diagrams for manipulating and analysing data to meet project specifications. |
| 2 | Source and prepare data for manipulation and analysis. | 2.1 | Search for spatial data and evaluate for suitability to task. |
| | | 2.2 | Comply with legislative, copyright, licensing and intellectual property requirements when accessing data. |
| | | 2.3 | Analyse source data to verify integrity and resolve identified limitations or problems. |
| | | 2.4 | Transform data format and coordinate system to meet task requirements. |
| 3 | Manipulate and analyse GIS data. | 3.1 | Undertake data analysis and manipulation using querying, summarising, analysis tools and statistics to create data and extract information to meet task requirements. |
| | | 3.2 | Check results of analysis and manipulation for accuracy. |
| | | 3.3 | Prepare data for presentation of information to meet task requirements. |
| 4 | Finalise project. | 4.1 | Prepare a project report summarising and presenting results in tables, graphs or maps and identifying limitations of results. |
| | | 4.2 | Create metadata and store spatial data in accordance with organisational and legislative requirements, including copyright, intellectual property and licensing. |

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# Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

# Unit Mapping Information

Supersedes and is equivalent to CPPSIS5064 Coordinate GIS data manipulation and analysis.

# Links

Companion volumes to this training package are available at the VETNet website - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b