Draft 0.2
This is a draft update to CPPSIS5064 Coordinate GIS data manipulation and analysis:
https://training.gov.au/Training/Details/CPPSIS5064

Code changed to CPPSSI5064 title changed to Conduct complex spatial data analysis to better reflect unit outcomes.
Changed PCs to active voice.
Elements and PCS revised
Adopted following licensing statement:
No licensing, legislative or certification requirements apply to this unit at the time of publication.

Changed 'person' to 'candidate' in PE for consistency.

Unit of Competency

CPPSSI5064 Conduct complex spatial data analysis

Modification history

Release	Comments
1	Replaces superseded equivalent CPPSIS5064A Manipulate and analyse GIS data. This version first released with CPP Property Services Training Package Version 3.

Application

This unit specifies the skills and knowledge required to coordinate spatial data manipulation and analysis to meet task specifications. It involves analysing task needs and GIS data format requirements; assessing potential analysis tools and models and identifying the limitations of analysis results. The unit covers verifying data source integrity, manipulating and analysing data and preparing results to inform decision makings.

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, regulations and legislation that apply to the workplace.

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Prerequisite Unit

None

Unit Sector

Surveying and Spatial Information Services

Elements and Performance Criteria

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 legal, copyright, licensing and intellectual property requirements when accessing
	2.3 Analyse source data to verify integrity and resolve identified limitations or problems.

	2.4 Transform data format and coordinate system t 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 identify limitations of results. 4.2 Create metadata and store spatial data in accordance with enterprise and legal requirements including copyright, intellectual property and licensing.

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

The Companion Volume Implementation Guide for the CPP Property Services Training Package is available at https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b

Assessment Requirements for CPPSSI5064 Conduct complex spatial data analysis

Modification history

Release	Comments
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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by conducting spatial data manipulation and analysis for two different projects. Each project must involve complex multi-stage analysis that will be used to inform decision making:

- one project must be a vector based project
- one project must be raster based project.

Knowledge Evidence

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

- sources of spatial information
- spatial querying and browsing techniques for obtaining information from data
- vector and raster analysis techniques
- univariate statistics for spatial data
- methods of verifying integrity of data
- data reduction and manipulation techniques
- types of spatial data formats
- methods for creating layers on maps.

Assessment Conditions

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

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed. Candidates must have access to:

- computer and software appropriate for manipulating GIS data.

Links

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