



Australian Government

CPPSSI5043 Design spatial data storage systems

Release: 1

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Modification History

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

This unit supersedes and is equivalent to CPPSIS5043 Design spatial data storage systems.

Application

This unit specifies the skills and knowledge required to design spatial data storage systems to meet client requirements. It includes analysing client needs and storage requirements and assessing the feasibility of those requirements against budgets, resources and priorities. The unit also includes planning the system design, scheduling development, and creating and testing prototypes where standard formats are unsuitable.

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 Determine spatial data storage requirements. | 1.1 Discuss spatial data storage needs with appropriate persons to clarify client needs. |
| | 1.2 Conduct audit of existing spatial data formats and sources to determine their suitability and adaptability in meeting storage requirements. |
| | 1.3 Evaluate and document feasibility of different storage solutions against budget, resources and priorities to meet client requirements. |
| 2 Design and test data storage system | |
| | 2.1 Confirm appropriate spatial data storage environment according to data and client requirements. |
| | 2.2 Identify functional requirements and spatial data dependencies and develop a plan of the data storage system. |
| | 2.3 Create, test and/or adopt prototype or a standard format, to confirm that design meets functional requirements. |
| | 2.4 Develop schedule for implementing the new data storage system and communicate to appropriate persons. |
| 3 Implement storage system design. | |
| | 3.1 Discuss proposed design of spatial data storage system with appropriate persons and make any adjustments required according to organisational requirements. |
| | 3.2 Confirm acceptance of final design and create documentation according to organisational requirements. |
| | 3.3 Consult end users to determine effectiveness of designed spatial data storage system. |
| | 3.4 Analyse and use feedback to make improvements to storage system according to organisational requirements. |
| | 3.5 Record details of storage system and quality improvements according to organisational requirements. |

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 CPPSIS5043 Design spatial data storage systems.

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>

Assessment Requirements for CPPSSI5043 Design spatial data storage systems

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Performance Evidence

To demonstrate competency a candidate must meet the elements and performance criteria of this unit by designing two different spatial data storage systems to meet client needs. One of the spatial data storage systems must incorporate a relational database.

Knowledge Evidence

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

- software applications to access and store data
- types of storage media for a range of spatial data, including cloud technology
- data storage and retrieval methods
- querying and browsing techniques for obtaining information from databases
- data obtained from global navigation satellite system (GNSS) and geographic information system (GIS) sources
- key features of spatial reference systems
- spatial data formats
- spatial data classification and indexing systems.

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 appropriate software
- digital data storage media
- organisational policies and procedures relating to data privacy, copyright and licensing.

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