

Draft 0.1

This is a draft update to CPPSIS5043 Design spatial data storage systems:

<https://training.gov.au/Training/Details/CPPSIS5043>.

Code changed to CPPSUR5043.

Changed PCs to active voice.

Changed 'person' to 'candidate' in PE.

Range of Conditions added to Knowledge Evidence.

I've added mapping info.

TAG will need to reassess this as unit is redeveloped.

Unit of Competency

CPPSUR5043 Design spatial data storage systems

Modification history

| Release | Comments |
|---------|--|
| 1 | Replaces superseded equivalent CPPSIS5043A Design a spatial data storage system. This version first released with CPP Property Services Training Package Version 3. |
| | Replaces superseded equivalent CPPSIS5043 Design spatial data storage systems |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. The unit covers analysing client needs and storage requirements and assessing the feasibility of those requirements against organisational budgets, resources and priorities. It also covers planning the system design; scheduling development; and creating and testing prototypes where standard formats are unsuitable. The unit requires the ability to negotiate storage requirements and design solutions; and to seek agreement on the final design, as well as feedback from end users, as the basis for implementing improvements to the storage system.

The unit supports those who work in a lead role in a surveying or spatial information services team in areas such as surveying, town planning, cartography, mapping and geographic information systems (GIS).

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

Prerequisite Unit

None

Unit Sector

Surveying and spatial information services

Elements and Performance Criteria

| | |
|---|---|
| 1. Determine spatial data storage requirements. | 1.1 Determine requirements for spatial data storage in consultation with appropriate persons. 1.2 Conduct audit of existing spatial data sources to determine their suitability, useability, dependencies and adaptability in meeting storage requirements. 1.3 Assess and document feasibility of storage requirements against organisational budget, resources and priorities according to organisational requirements. |
| 2. Plan storage system design. | 2.1 Develop a plan based on functional requirements of storage system and detailing spatial data dependencies. 2.2 Determine appropriate spatial data storage environment according to data and organisational requirements. 2.3 Develop and communicate schedule for introducing data storage system to appropriate persons. 2.4 Create, test and/or adopt prototype, or a standard format, to confirm that design meets functional requirements. |
| 3. Finalise storage | 3.1 Negotiate final design of spatial data storage system with |

| | |
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| system design. | <p>appropriate persons according to organisational requirements.</p> <p>3.2 Accept final design and create documentation according to organisational requirements.</p> <p>3.3 Canvass end users to determine effectiveness of designed spatial data storage system.</p> <p>3.4 Analyse and use feedback to make improvements to storage system according to organisational requirements.</p> |
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Foundation Skills

Candidates require:

- initiative and enterprise skills to:
 - assess standard storage formats against requirements for a new design
- numeracy skills to:
 - compare costs of spatial data storage systems against organisational budget and resource allocations
- reading skills to:
 - interpret graphical information obtained from global navigation satellite systems (GNSS) and GIS
- writing skills to:
 - record details of quality improvements.
- technology skills to:
 - use a range of software applications to access and store data
 - use querying commands to obtain information from a database
- problem-solving skills to:
 - identify storage solutions appropriate to different types of spatial data.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS5043 Design spatial data storage systems

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPPSUR5043 Design spatial data storage systems

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by designing spatial data storage systems for two different clients.

While designing the above spatial data storage systems, the candidate must:

- negotiate with end users regarding spatial data storage requirements and design
- plan the system design, including assessing available formats and storage requirements
- assess existing spatial data sources to determine their capacity to meet user storage requirements based on suitability, useability, dependencies and adaptability
- assess the feasibility of storage options based on organisational budget, resources and priorities
- comply with administrative and legal requirements for storing and retrieving spatial data, including data privacy and information copyright
- comply with organisational requirements for recording data, completing documentation, and using the equipment specified in the assessment conditions
- test design prototypes to confirm that they meet functional requirements
- obtain feedback from end users on final storage system.

Knowledge Evidence

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

- administrative and legal requirements for storing and retrieving digital and hard copy spatial data, including data privacy and information copyright
- data storage and retrieval methods
- organisational policies and procedures relating to:
 - accessing, recording and storing data
 - communicating with clients and end users
 - completing documentation
 - working within budget and resource constraints and priorities
- querying and browsing techniques for obtaining information from databases
- spatial data classification and indexing systems
- spatial data formats
- key features of spatial reference systems
- types of storage media for a range of spatial data, including Cloud technology
- appropriate persons:
 - client
 - end user
 - manager
 - spatial data supplier
 - staff.

Assessment Conditions

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

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- equipment:
 - data retrieval equipment
 - computer with software appropriate for spatial data storage and retrieval
 - hard copy and digital data storage media
- 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.

Links

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