Australian Government

# CPPSIS5043 Design spatial data storage systems

**Release: 1**

# CPPSIS5043 Design spatial data storage systems

## Modification History

Release 1.

Replaces superseded equivalent CPPSIS5043A Design a spatial data storage system.

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

## Application

This unit of competency specifies the outcomes 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 endorsement.

## Pre-requisite Unit

Nil

## Unit Sector

Surveying and spatial information services

## Elements and Performance Criteria

| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions. |
|---|---|
| 1. Determine spatial data storage requirements. | 1.1. Requirements for spatial data storage are determined in consultation with ***appropriate persons***. |
| | 1.2. Audit of existing spatial data sources is conducted to determine their suitability, useability, dependencies and |

| | | |
|---|---|---|
| | | adaptability in meeting storage requirements. |
| | | 1.3. Feasibility of storage requirements is assessed against organisational budget, resources and priorities; and documented according to organisational requirements. |
| 2. | Plan storage system design. | 2.1. Plan is developed based on functional requirements of storage system and detailing spatial data dependencies. |
| | | 2.2. Appropriate spatial data storage environment is determined according to data and organisational requirements. |
| | | 2.3. Schedule for introducing data storage system is developed and communicated to appropriate persons. |
| | | 2.4. Prototype is created and tested, or a standard format adopted, to confirm that design meets functional requirements. |
| 3. | Finalise storage system design. | 3.1. Final design of spatial data storage system is negotiated with appropriate persons according to organisational requirements. |
| | | 3.2. Final design is agreed and accepted, and documentation is created according to organisational requirements. |
| | | 3.3. End users are canvassed to determine effectiveness of designed spatial data storage system. |
| | | 3.4. Feedback is analysed and used to make improvements to storage system according to organisational requirements. |

# Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

| Skill | Performance feature |
|---|---|
| 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<br>• use querying commands to obtain information from a database. |
| Problem-solving skills to: | • identify storage solutions appropriate to different types of spatial data. |

## Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

| | |
|---|---|
| ***Appropriate persons*** must include at least two of the following: | • client<br>• end user<br>• manager<br>• spatial data supplier<br>• staff. |

## Unit Mapping Information

CPPSIS5043A Design a spatial data storage system

## Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b