



Australian Government

CPPSIS5060 Develop spreadsheets for spatial data

Release: 1

CPPSIS5060 Develop spreadsheets for spatial data

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5060A Use complex spreadsheets for spatial information.

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

Application

This unit of competency specifies the outcomes required to design and develop spreadsheets to enter, edit and format spatial data. The unit covers using functions and features of spreadsheet software, including linked spreadsheets, multiple documents and advanced mathematical formulas based on trigonometrical functions. The unit also covers work preparation activities, including evaluating tasks to identify design parameters and setting up software and spreadsheet templates to ensure quality and consistency in format and design. The unit requires the ability to use technology to apply advanced mathematical concepts to spatial data, including identifying and resolving errors relating to formulas and other spreadsheet functions.

The unit supports those who work in a lead role in a surveying or spatial information services team.

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. Prepare for spreadsheet tasks.

1.1. Spreadsheet requirements for spatial data entry, storage, output, reporting and presentation are identified to determine task requirements in consultation with ***appropriate persons***.

- 1.2. Tasks are evaluated to identify design parameters, required mathematical formulas and areas where automation would increase efficiency according to task requirements.
 - 1.3. Software is set up and checked to ensure functionality and capacity to meet task and organisational requirements.
2. Set up spreadsheets.
 - 2.1. Spreadsheet templates are developed and edited to standardise spreadsheet operation and ensure quality and consistency in format and design.
 - 2.2. Linked worksheet solution is developed using software functions and formulas to meet task requirements.
 - 2.3. Worksheets are formatted to incorporate cell and data attributes, formulas and graphs with labels and titles.
 - 2.4. Formulas are tested to confirm that output meets task requirements and errors are identified and resolved or contingencies managed.
3. Use functions and features of spreadsheet software.
 - 3.1. Spatial data is entered, checked and edited according to task and organisational requirements.
 - 3.2. Spatial data is imported and exported between compatible spreadsheets, and host documents are adjusted according to task requirements.
 - 3.3. Software documentation and online help are used to overcome problems with spreadsheet design and production.
 - 3.4. Spreadsheets, including graphs, are produced and stored according to organisational requirements.
4. Finalise spreadsheets.
 - 4.1. Completed spreadsheets are protected to prevent accidental corruption and are archived according to organisational requirements.
 - 4.2. Documentation is completed and appropriate persons are informed of results 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:	• translate spatial data into spreadsheet design and layout.
Numeracy skills to:	• use mathematical formulas involving trigonometrical functions • use spreadsheet functions that use mathematical and statistical terms, including absolute, value, integer, square root, standard deviation, and simple if functions.
Oral communication skills to:	• ask questions to clarify spreadsheet requirements.
Reading skills to:	• interpret cell references • interpret information in graphs.
Writing skills to:	• incorporate headings and labels into spreadsheets to enhance meaning of spatial data.
Technology skills to:	• create multi-page and linked documents • use querying commands to obtain information from databases.
Problem-solving skills to:	• resolve problems with data compatibility.

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 • client
must include at least • end user
one of the following: • manager.

Unit Mapping Information

CPPSIS5060A Use complex spreadsheets for spatial information

Links

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

Assessment Requirements for CPPSIS5060 Develop spreadsheets for spatial data

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5060A Use complex spreadsheets for spatial information.

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

Performance Evidence

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria, foundation skills and range of conditions of this unit. The person must also develop three spreadsheets for different spatial data, in which the work must involve:

- linking spreadsheets
- multiple documents
- advanced mathematical formulas based on trigonometrical functions.

While developing the above spreadsheets for spatial data, the person must:

- analyse task requirements and evaluate work tasks as the basis for designing data layout, formulas and areas of automation
- communicate clearly with others to clarify work tasks and notify task results
- comply with organisational and legal requirements for:
 - accessing spatial data, including data privacy and information copyright
 - completing records and documentation
 - naming, storing and archiving spreadsheets
- design and develop spreadsheet templates which ensure consistency in format, font type and size across multiple documents
- develop spreadsheets using a range of complex software functions and formulas, including:
 - cell and data attributes
 - cell protection
 - embedding cell references in formulas
 - graphs
 - headers and footers
 - headings and labels
 - importing and exporting data
 - relative and absolute cell references

- edit and proofread spreadsheets to check for accuracy and data consistency, including checks for correct formula function and output
- identify errors and solve problems relating to data and spreadsheets
- preserve the integrity and accuracy of spatial data during import and export process
- use industry-accepted techniques to save and protect spreadsheets and data from corruption.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- advanced functions of spreadsheet software applications, including linking spreadsheets and using formulas
- display principles, including:
 - colour
 - composition
 - font type
 - legends
 - size
 - text and line style
- methods for applying trigonometrical functions to formulas in spreadsheets
- organisational requirements for:
 - completing records and documentation
 - preparing, naming, saving and archiving spreadsheet files.

Assessment Conditions

The following must be present and available to learners during assessment activities:

- equipment:
 - computer with access to appropriate spreadsheet software
 - printer
- specifications:
 - organisational policies, procedures and documentation relating to data privacy and information copyright
- physical conditions:
 - access to equipped work station
- relationships with team members and supervisor:
 - working in a team.

Timeframe:

- as specified by client and project requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

Companion Volume implementation guides are found in VETNet -

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