



Australian Government

CPPSIS4025 Collect spatial data using GNSS

Release: 1

CPPSIS4025 Collect spatial data using GNSS

Modification History

Release 1.

Replaces superseded equivalent CPPSIS4025A Collect basic GNSS data.

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

Application

This unit of competency specifies the outcomes required to collect spatial data using global navigation satellite system (GNSS) equipment for surveying purposes, using both single point and differential techniques. The unit covers planning work tasks and setting up and operating GNSS equipment to achieve the required accuracy. The unit includes validating data to identify errors.

The unit supports those who work in support positions collecting field surveying data.

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 spatial data collection.	<table><tr><td>1.1.</td><td>Task requirements are reviewed and <i>spatial data</i> collection is planned in consultation with <i>appropriate persons</i>.</td></tr><tr><td>1.2.</td><td>GNSS equipment is selected and checked according to task requirements.</td></tr></table>	1.1.	Task requirements are reviewed and <i>spatial data</i> collection is planned in consultation with <i>appropriate persons</i> .	1.2.	GNSS equipment is selected and checked according to task requirements.
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1.2.	GNSS equipment is selected and checked according to task requirements.				
2. Use GNSS equipment to	<table><tr><td>2.1.</td><td>Site conditions are checked to identify factors that could obstruct or interfere with GNSS operation and impact on</td></tr></table>	2.1.	Site conditions are checked to identify factors that could obstruct or interfere with GNSS operation and impact on		
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collect data.	accuracy of data.
	2.2. Conditions for obtaining optimum GNSS positions are determined and basic methods to improve accuracy of GNSS point positioning are applied.
	2.3. GNSS equipment is set up and operated according to organisational requirements.
	2.4. Point positional data is collected, validated and recorded according to task specifications and organisational requirements.
	2.5. Checked data is collected according to organisational requirements.
3. Finalise spatial data collection.	3.1. Data is downloaded and verified, and additional data gathered where required according to organisational requirements.
	3.2. Data is processed, and reports and documentation are completed 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
Numeracy skills to:	<ul style="list-style-type: none"> perform surveying calculations relating to height, distances, angles and coordinates set required datum and map projection and other parameters in equipment.
Oral communication skills to:	<ul style="list-style-type: none"> ask questions to clarify task requirements.
Reading skills to:	<ul style="list-style-type: none"> interpret equipment software menus and configurations interpret three-dimensional (3-D) information.

Writing skills to:

- compile a short report of data collection task
- record data legibly by hand.

Technology skills to:

- use GNSS software to communicate with GNSS receivers.

Problem-solving skills to:

- recognise and address possible anomalies in collected 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.

Spatial data must include:

- features and their attributes
- horizontal position in latitude and longitude, easting and northing
- vertical height.

Appropriate persons must include at least one of the following:

- experienced colleague
- qualified surveyor
- supervisor or line manager.

Unit Mapping Information

CPPSIS4025A Collect basic GNSS data

Links

Companion Volume implementation guides are found in VETNet -

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