



Australian Government

CPPSSI4025 Collect spatial data using GNSS

Release: 1

CPPSSI4025 Collect spatial data using GNSS

Modification History

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

This unit supersedes and is equivalent to CPPSIS4025 Collect spatial data using GNSS.

Application

This unit specifies the skills and knowledge required to collect spatial data using global navigation satellite system (GNSS) equipment for surveying purposes. It includes setting up and operating GNSS equipment to achieve the required accuracy and validating data to identify errors.

This unit is suitable for entry-level technicians who use a broad range of cognitive, technical and communication skills to select and apply a range of methods, tools, materials and information to complete routine and non-routine activities and provide and transmit solutions to a variety of predictable and sometimes unpredictable 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.

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Users must check with the relevant regulatory state/territory authority before delivery.

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.

- 1 Prepare for spatial data collection.
 - 1.1 Review task requirements and plan for spatial data collection in consultation with appropriate persons.
 - 1.2 Select and check GNSS equipment according to task requirements.
 - 1.3 Determine conditions for obtaining optimum GNSS positions and apply basic methods to improve accuracy of GNSS point positioning.
 - 1.4 Comply with organisational and legislative requirements for identifying hazards and working safely.
- 2 Use GNSS equipment to collect data.
 - 2.1 Set up and operate GNSS equipment according to organisational and task requirements.
 - 2.2 Set required datum and map projection and other parameters in equipment.
 - 2.3 Use GNSS software to communicate with GNSS receivers.
 - 2.4 Collect, validate and record point positional data and attributes according to task.
 - 2.5 View collected positional data spatially and view collected attributes non-spatially.
 - 2.6 Recognise and address possible anomalies in collected data.
- 3 Finalise spatial data collection.
 - 3.1 Verify accuracy of a sample of collected points by recollecting points or other suitable method.
 - 3.2 Gather additional data where required for task requirements.
 - 3.3 Download collected data in suitable format for task requirements.
 - 3.4 Process, report and document complete data 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 CPPSIS4025 Collect spatial data using GNSS.

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 CPPSSI4025 Collect spatial data using GNSS

Modification History

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

This unit supersedes and is equivalent to CPPSIS4025 Collect spatial data using GNSS.

Performance Evidence

To demonstrate competency a candidate must meet the elements and performance criteria of this unit by collecting spatial data using global navigation satellite system (GNSS) equipment for two different surveying projects.

Knowledge Evidence

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

- purpose and function of GNSS equipment
- different GNSS techniques
- typical accuracies obtainable with GNSS equipment
- factors that affect accuracy of data collection by GNSS equipment
- methods for checking accuracy of data collected
- surveying calculations relating to distances and coordinates
- spatial data querying techniques using Structured Query Language (SQL) commands
- purpose of and methods for setting designated datum and map projection
- spatial data:
 - features and their attributes
 - 2-D and 3-D position.

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:

- GNSS equipment and associated software

- task specifications and plans
- organisational procedures relating to work health and safety (WHS).

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>