



Australian Government

CPPSIS5062 Conduct photogrammetric mapping

Release: 1

CPPSIS5062 Conduct photogrammetric mapping

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5062A Conduct photogrammetric mapping.

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

Application

This unit of competency specifies the outcomes required to interpret information from various types of image data to conduct photogrammetric mapping. The unit covers assessing the survey area and project requirements to determine the types and possible sources of image data to meet project specifications as well as identifying constraints. The unit also covers visually analysing image data against spatial reference systems and ground controls for photogrammetric mapping. The unit requires the ability to measure and calculate information obtained from image data; identify and resolve problems; and implement project management techniques.

The unit supports those who work in a lead role in a spatial information services team in 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. Apply photogrammetric data to project.

- 1.1. Project specifications are identified, and survey area and ***photogrammetric data*** are analysed and applied to project plan.
- 1.2. Possible sources of image data for mapping purposes are identified according to project specifications.

- | | | |
|----|--|---|
| | 1.3. | Properties and constraints of different types of image data are identified according to project specifications. |
| 2. | Calculate information from image data. | 2.1. Image data is accessed and spatial reference systems are used to clarify properties according to project specifications.
2.2. Ground controls targeted for photogrammetric mapping are checked to enhance understanding of image data.
2.3. Scale of digital and hard copy image data is determined and calculated.
2.4. Problems involving acquired image data are identified and resolved according to organisational requirements. |
| 3. | Interpret and store image data. | 3.1. Information from acquired photogrammetric data is used to meet project specifications.
3.2. Captured data is stored according to organisational requirements.
3.3. Documentation is 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
Initiative and enterprise skills to:	• apply spatial reference systems to compare data images.
Learning skills to:	• conduct research to source photogrammetric data.
Numeracy skills to:	• solve complex problems relating to height, depth, dimension,

direction and position in actual operational activity and virtual representation.

Oral communication skills to:

- ask questions to clarify data image requirements.

Reading skills to:

- analyse graphical and technical information from maps and photographs.

Writing skills to:

- document technical detail in project plan.

Technology skills to:

- use a computer and software to manipulate and set out image data.

Problem-solving skills to:

- apply ground controls to aerial photographs.

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.

Photogrammetric data must include at least two of the following:

- aerial survey
- computer vision
- geoinformatics
- geomatics engineering images
- GeoPhoto
- stereoplotter
- three-dimensional data acquisition and object reconstruction
- videogrammetry.

Unit Mapping Information

CPPSIS5062A Conduct photogrammetric mapping

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 CPPSIS5062 Conduct photogrammetric mapping

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5062A Conduct photogrammetric mapping.

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 conduct photogrammetric mapping of data images from a range of sources for two different projects.

While conducting the above photogrammetric mapping, the person must:

- analyse project specifications to clarify the types of image data required and the project survey area, which include:
 - aerial photographs
 - other forms of digital data in the horizontal or vertical plane
- develop a project plan and implement project management techniques to plan, schedule, monitor and report on project activities
- apply ground controls for photogrammetric mapping, including:
 - pre-marked targets
 - primary ground control
 - post-marked targets
 - secondary control
- analyse photogrammetric images to calculate information and measure and identify scale
- communicate clearly with others to clarify and negotiate project tasks
- comply with organisational requirements relating to:
 - completing records and documentation
 - health and safety when using screen-based equipment
 - data privacy and information copyright
- identify and resolve constraints and problems with image data
- record and interpret statistics with accuracy and precision
- research and access sources of photogrammetric data
- use a computer and software applications to access, analyse and store photogrammetric data.

Knowledge Evidence

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

- legal and administrative requirements for accessing, using and storing photogrammetric data, including data privacy and information copyright
- organisational policies and procedures relating to:
 - accessing and formatting image data and managing quality
 - health and safety when using screen-based equipment
- possible sources of image data
- properties and characteristics of photogrammetric data used in mapping
- relevant industry requirements and standards relating to photogrammetric mapping
- requirements for ground control in the photogrammetric process
- set out and format requirements for image data
- key features of spatial reference systems relating to photogrammetric mapping.

Assessment Conditions

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

- equipment:
 - computer and software applications appropriate to conducting photogrammetric mapping
- specifications:
 - organisational policies and procedures relating to:
 - work health and safety
 - data privacy and information copyright
 - project specifications
- physical conditions:
 - access to equipped work station
- relationships with team members and supervisor:
 - working in a team.

Timeframe:

- as specified by 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>

