



Australian Government

CPPSIS4026 Digitally enhance and process image data

Release: 1

CPPSIS4026 Digitally enhance and process image data

Modification History

Release 1.

Replaces superseded non-equivalent CPPSIS4026A Read and interpret image data.

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

Application

This unit of competency specifies the outcomes required to enhance and process image data using digital techniques. The unit covers using remote sensing software to manipulate, enhance, classify and process data to reveal geographic patterns and relationships and improve resolution. Image data can be digital, multispectral scanner, or radar. Platforms can be aircraft, unmanned aerial vehicles or satellites at low to high altitudes. The unit requires assessing the survey area and project specifications to determine the types and possible sources of image data to meet requirements.

The unit supports those who work in a spatial information services team in support positions, such as image analyst, geographic information system (GIS) analyst, GIS officer, or cartographer.

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. Identify image data. | 1.1. Project specifications, survey area and types of image data requirements are determined in consultation with <i>appropriate persons</i> . |
| | 1.2. Possible sources of image data are identified to meet project specifications. |

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|----|---|--|
| | 1.3. | Constraints of different types and formats of image data are identified in relation to project specifications. |
| 2. | Process image data. | 2.1. Image data is accessed and analysed using digital techniques to clarify features and properties according to project specifications.
2.2. Ground control targets for photogrammetric mapping are checked to enhance image data.
2.3. Image data is processed, analysed and classified according to organisational procedures to achieve project specifications. |
| 3. | Finalise digital image enhancement tasks. | 3.1. Data image problems are identified and resolved using enhancement techniques according to organisational requirements.
3.2. Information from data images is used to meet project specifications, and 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

- | | |
|-------------------------------|---|
| Learning skills to: | <ul style="list-style-type: none"> conduct research to identify image data sources. |
| Numeracy skills to: | <ul style="list-style-type: none"> calculate scale of image data solve problems relating to area, height, depth, dimension, direction and position in actual operational activity and virtual representation. |
| Oral communication skills to: | <ul style="list-style-type: none"> ask questions to clarify data image requirements. |

Reading skills to:

- interpret graphical and technical information, including shapes and patterns within digital images.

Writing skills to:

- record clear and accurate measurements and computations.

Technology skills to:

- use a computer and software to manipulate and enhance image resolution.

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

- experienced colleague

one of the following:

- supervisor or line manager.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

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