



Australian Government

Assessment Requirements for CPPSSI6040 Develop 2-D and 3-D terrain visualisations

Release: 1

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Modification History

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

This unit supersedes and is equivalent to CPPSIS6040 Develop 2-D and 3-D terrain visualisations.

Performance Evidence

To demonstrate competency a candidate must meet the performance criteria of this unit by using a geographic information system (GIS) or computer-aided design (CAD) environment to develop two-dimensional (2-D) and three-dimensional (3-D) terrain visualisations that meet specifications for two different projects.

For each project, the candidate must prepare drawings and models that meet specifications for accuracy, completeness, coverage, density and logical consistency.

For the 3-D terrain visualisations, the candidate must:

- develop contour, slope and shaded relief maps of an area by creating and manipulating entities in 3-D space
- create a digital elevation model in 3-D using mathematically defined surfaces and point or line data.

Knowledge Evidence

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

- interpretation of:
 - engineering and environmental plans
 - graphical information, including rasters
 - technical drawing standards
 - height, depth, breadth, dimension and position in terms of operational activity and virtual representation
- interpolation techniques to convert from point to raster data
- computer platforms and software for GIS, CAD and digital elevation models (DEMs)
- legislative requirements for data, copyright and licensing
- data formats and precision and accuracy requirements for preparing terrain visualisations in 2-D drawings and 3-D models
- techniques for processing and displaying digital images

- sources for existing spatial datasets
- methods for capture of raw elevation data
- GIS and CAD principles, capabilities and uses in relation to creating terrain visualisations
- methods for validating spatial data sources
- types of data set constraints
- key features of spatial referencing systems
- techniques for modifying existing 2-D and 3-D models
- types of products that can be derived from a DEM.

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:

- computer, including GIS or CAD applications and software appropriate for developing 2-D and 3-D terrain visualisations
- printer, scanner, plotter and multimedia devices and peripherals.

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>