



Australian Government

CPPSIS6022 Produce mine drawings

Release: 1

CPPSIS6022 Produce mine drawings

Modification History

Release 1.

Replaces superseded equivalent CPPSIS6022A Create mine drawings.

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

Application

This unit of competency specifies the outcomes required to use high-level design software program functions and features to produce mine drawings. The unit covers preparing the drawing environment by analysing project specifications; and setting up hardware, software, menus and drawing defaults accordingly. It also covers designing and creating mine drawings; producing drawing files that are saved in various formats; measuring and calculating mine volumes; and checking and validating the results to identify and resolve errors. The unit requires the ability to link drawing entities to database attributes and create and plot detailed views using various scales.

The unit supports those who work in a technical management role in a mining environment and take responsibility for liaising with clients and end users to meet project requirements.

Licensing, legislative, regulatory or certification requirements apply to this unit in some States where mining surveying must be undertaken under the supervision of a registered surveyor. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

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.

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|---------------------------------|--|
| 1. Prepare drawing environment. | 1.1. Project specifications are sourced and analysed; and objectives, deliverables, constraints and principal work activities are identified and documented in consultation with <i>appropriate persons</i> . |
|---------------------------------|--|

- 1.2. Hardware and software are set up and used according to organisational requirements.
 - 1.3. Menus and drawing defaults are customised to suit project specifications according to organisational requirements.
 - 1.4. Survey database is created according to organisational requirements.
2. Create mine drawings.
 - 2.1. Drawings for surface mine are created using available software **drawing functions and features** to meet project specifications.
 - 2.2. Drawings are designed to incorporate mines safety requirements according to project specifications and organisational requirements.
 - 2.3. Drawing entities are linked to database attributes to suit project specifications.
 - 2.4. Supplementary data is extracted from existing mining and engineering plans and drawings to meet project specifications.
 - 2.5. Detailed views are created using various scales to meet project specifications.
 - 2.6. Plots are produced at required scale to meet project specifications.
3. Produce output.
 - 3.1. Files are saved in various formats according to organisational requirements.
 - 3.2. Entities are produced from drawing files or database and listed in required format to meet project specifications.
 - 3.3. Identified spatial components are accurately measured or set out, and data is reduced to project reference system.
 - 3.4. Mine volumes are calculated and validated using captured data and measurements, and errors are resolved or contingencies managed according to specifications and organisational requirements.

4. Finalise drawings.
- 4.1. Drawings are finalised and checked for compliance with project specifications and organisational requirements.
 - 4.2. Appropriate persons are notified of results according to organisational requirements.
 - 4.3. Documentation is completed and spatial data archived 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:

- translate specifications into drawing design.

Learning skills to:

- extract and output information from engineering plans.

Numeracy skills to:

- apply understanding of height, depth, dimension and position to actual operational activity and virtual representation
- use statistics to reduce errors in measurements.

Oral communication skills to:

- liaise with clients and end users to identify drawing detail.

Reading skills to:

- interpret technical drawing standards.

Technology skills to:

- export drawings into different formats
- operate hardware, including computers and plotters.

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

must include at least one of the following:

- client
- colleague
- end user
- registered or qualified surveyor
- site personnel.

Drawing functions and features

must include at least eight of the following:

- arcs
- area and volumes functions
- creating output files using designs or survey pick-up data
- dimensions
- drawing features, such as polylines and texts
- drawing functions
- edit functions
- grade reports
- isometrics and perspectives
- macros
- methods for drawing lines
- ore and waste reports
- two-dimensional (2-D) coordinate plotting.

Unit Mapping Information

CPP SIS6022A Create mine drawings

Links

Companion Volume implementation guides are found in VETNet -

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