



Australian Government

CPPSIS6025 Apply quality control measures to spatial products and services

Release: 1

CPPSIS6025 Apply quality control measures to spatial products and services

Modification History

Release 1.

Replaces superseded equivalent CPPSIS6025A Apply quality control measures to spatial information services industry.

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

Application

This unit of competency specifies the outcomes required to design and implement quality control measures to assess the quality of spatial products and services. The unit covers analysing specifications and information to plan and design quality control standards and assessment criteria, and implementing quality control processes to assess sample products and services. Assessing quality includes analysing data; and identifying, isolating and rectifying faults. The unit also covers conducting independent inspection, tests and audits, and facilitating work groups to identify and resolve quality variances. It includes implementing procedures to monitor and maintain quality processes, and preparing quality assessment reports. The unit requires the ability to design computations and conduct error analysis using a computer and software.

The unit supports those who manage quality processes and staff in a surveying or spatial information services team, in areas such as surveying, cartography, town planning, 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. | Prepare to assess | 1.1. | Spatial product or service to be assessed and project |
|----|-------------------|------|---|

the quality of spatial product or service.	specifications are identified and analysed against organisational guidelines.
	1.2. Quality control processes are identified and used to assess sample products or services in consultation with appropriate persons. 1.3. Information on identified risks, contingencies, resources, technologies and techniques is analysed and incorporated into quality control process. 1.4. Pertinent legal and statutory standards and legislative requirements are incorporated into quality control process.
2. Assess quality of spatial product or service.	2.1. Product or service is examined and assessed against assessment criteria and quality control measures. 2.2. Existing information and spatial data are checked to identify appropriate quality control measures. 2.3. Data is analysed and relevant information is used to identify variations and verify its reliability according to quality control measures. 2.4. Work groups are facilitated to assist in identifying and resolving quality variances according to organisational requirements. 2.5. Computations are designed to conduct error analysis, and faults are isolated and rectified or contingencies managed according to quality control measures. 2.6. Independent inspection, tests and audits are conducted according to organisational requirements.
3. Monitor quality control process.	3.1. Quality improvement is monitored and maintained according to organisational requirements. 3.2. Quality awareness is promoted among immediate work team according to organisational requirements. 3.3. Quality assessment records and reports are 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
Planning and organising skills to:	• prioritise work to meet agreed timeframes.
Numeracy skills to:	• analyse statistics to identify errors • apply cost considerations when planning quality control process.
Oral communication skills to:	• ask questions to gather information about products and services • reiterate quality awareness with members of work team.
Reading skills to:	• compare technical information in assessment criteria and spatial products.
Writing skills to:	• prepare technical reports.
Technology skills to:	• connect equipment to coordinate systems • set up and calibrate specialised surveying equipment.
Problem-solving skills to:	• select appropriate validation methods to verify reliability of data.

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 two of the following:
- client
 - colleague
 - end user
 - engineer
 - manager
 - registered or qualified surveyor
 - site personnel
 - supplier.

Unit Mapping Information

CPPSIS6025A Apply quality control measures to spatial information services industry

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 CPPSIS6025 Apply quality control measures to spatial products and services

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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 apply quality control measures to:

- one spatial product
- one spatial service.

While applying quality control measures to the above spatial product and service, the person must:

- analyse specifications and spatial data requirements to develop quality control processes
- schedule work tasks and organise resources and equipment
- determine and apply quality assessment criteria to products and services
- identify and resolve quality variances
- comply with industry-accepted standards for validating accuracy of surveying data and identifying errors and discrepancies
- comply with organisational, legal and statutory requirements for:
 - completing records and documentation
 - health and safety when using surveying equipment
 - recording, storing and filing data
 - using, checking and storing equipment
- conduct independent inspection, tests and audits of spatial products and services
- design and plan quality control measures to account for:
 - identified risks and contingencies
 - legal and statutory standards and legislative requirements
 - resources
 - technologies and techniques to be used
- design computations to be used to assess quality of spatial data
- implement project management mechanisms to ensure that quality control processes are completed within required timeframes and comply with specifications
- interpret specifications to identify products and services to be examined and assessed

- monitor and maintain quality improvements
- perform error analysis using one of the following methods or pieces of equipment:
 - computer-aided design
 - digital gauge
 - dimensional gauge
 - measurements
 - tapes
 - templates
 - visual inspection
- promote quality awareness among the work team
- communicate clearly with others to clarify and report quality control information and negotiate task completion
- supervise staff to complete work tasks on time.

Knowledge Evidence

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

- accuracy and precision requirements and tolerances for surveying products and services
- data formatting, processing and reduction techniques
- industry-accepted methods for validating data to identify errors and discrepancies
- legislative, statutory and industry requirements and standards relating to work tasks
- methods of assessing existing spatial datasets and dataset sources
- methods for calculating surveying data and verifying its accuracy using spatial reference systems
- methods for error analysis using sample products and services
- methods for reporting non-conformities in spatial product or service
- organisational policies and procedures relating to:
 - health and safety when using screen-based equipment
 - reporting and documentation
 - supervising the work team
 - using and allocating resources
 - using computers and software
- quality control measures and assessment criteria that can be applied to spatial products and services
- project management techniques for scheduling, measuring and monitoring work progress and planning for contingencies
- purpose and application of independent inspection, testing and auditing of the quality of spatial products and services
- reference and coordinate systems for surveying data, including Australian Height Datum and Map Grid of Australia
- purpose and use of metadata in relation to quality assessment of spatial products and services.

Assessment Conditions

Assessment Conditions

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

- equipment:
 - as specified in the performance evidence
- specifications:
 - quality assessment specifications, including relevant data, plans and drawings
 - organisational policies, procedures and documentation relating to quality measures for spatial products and services
- relationships with team members and supervisor:
 - lead role 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

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