



Australian Government

AHCARB405 Perform geospatial data collection

Release: 1

AHCARB405 Perform geospatial data collection

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to perform geospatial data collection required for tree plans and drawings.

This unit applies to individuals who supervise others and provide and communicate solutions to a range of predictable and sometimes unpredictable problems. Work is implemented with low risk work procedures and to comply with Safe Work Method documentation.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine functionality requirements	1.1 Determine technical and business requirements for geospatial data collection 1.2 Determine suitability and requirements of using geographical information system (GIS) 1.3 Determine suitability of software application for intended purpose 1.4 Consider features of remote positioning and satellite shadow reduction 1.5 Consider end-to-end capability as required

Element	Performance criteria
	1.6 Determine asset management requirements for GIS data 1.7 Consider functional ease-of-use, mobility and reliability 1.8 Evaluate future-proofed solutions and outcomes 1.9 Select geospatial data collection equipment
2. Set up device	2.1 Complete relevant start-up procedures 2.2 Determine operational data fields 2.3 Determine data tables and associated attributes 2.4 Configure fields for operational use
3. Collect and enter data	3.1 Undertake functional testing of hand held device for connectivity 3.2 Use global positioning system (GPS) to supply co-ordinate data 3.3 Use latitude and longitude co-ordinates to locate designated trees 3.4 Correct co-ordinate data at tree site visually as required 3.5 Update and correct tree attribute data as required 3.6 Collect and enter data
4. Process and analyse data	4.1 Check data for accuracy for post-processing 4.2 Download GIS data 4.3 Process GIS data 4.4 Analyse data with appropriate techniques

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB405 Perform geospatial data collection

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can demonstrate:

- determining technical and business requirements for geospatial data collection
- determining suitability and requirements of using geographical information system (GIS)
- determining suitability of software application for intended purpose
- consider features of remote positioning and satellite shadow reduction
- considering end-to-end capability as required
- determining asset management requirements
- considering functional ease-of-use, mobility and reliability
- evaluate future-proofed solutions and outcomes
- selecting geospatial data collection equipment
- completing relevant start-up procedures
- determining operational data fields
- determining data tables and associated attributes
- configuring fields for operational use
- undertaking functional testing of hand held device for connectivity
- using co-ordinates to locate designated trees
- correcting co-ordinate data at tree site visually as required
- updating and correcting tree attribute data as required
- collecting and entering data
- checking data for accuracy for post-processing
- downloading business data
- processing business data
- analysing data with appropriate techniques
- use of industry standard terminology to describe.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- geospatial data
- collection of geospatial data
- technical and business requirements for geospatial data collection
- suitable software applications for using geospatial data
- remote positioning
- satellite shadow reduction
- end-to-end capability
- asset management
- attributes of functional ease-of-use, mobility and reliability
- geospatial data collection equipment
- configuring data fields
- global positioning system (GPS)
- latitude and longitude co-ordinates
- start-up procedures
- data fields
- data tables
- tree attribute data
- data entry
- data processing.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
 - GIS data collection equipment
 - computer and software
 - internet connection
- materials:
 - data operations form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

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