



Australian Government

Department of Education, Employment and Workplace Relations

AURM340312B Collect and log motorsport data

Release: 1

AURM340312B Collect and log motorsport data

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency describes the skills and knowledge required to collect and log motorsport data. It requires the ability to identify the data, prepare collection methods and systems, and use technical skills to collect and evaluate data. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	This unit applies to individuals who undertake data collection and logging in a motorsports environment.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify situations where motorsport data is required	1.1. Clarify purpose of data collection 1.2. Clarify sources of data 1.3. Use team instructions and procedures to specify data requirements 1.4. Clarify end users of motorsport data 1.5. Interpret controlling body rules, category rules and supplementary regulations 1.6. Observe occupational health and safety (OHS) requirements, including regulatory requirements and personal protection needs, throughout the work
2. Prepare resources for data collection	2.1. Develop checklists/recording sheets according to team specifications 2.2. Prepare manual instruments for data collection 2.3. Check electronic data acquisition system settings 2.4. Check and adjust equipment settings, calibration and system in accordance with task requirements and equipment manufacturer instructions 2.5. Conduct trial runs to check equipment and procedures for function, accuracy and efficiency 2.6. Make necessary adjustments to equipment or procedures
3. Collect data	3.1. Carry out data acquisition system start-up procedure in accordance with manufacturer instructions 3.2. Operate data acquisition system in accordance with its designed capacity and purpose and to manufacturer recommendations 3.3. Estimate and describe potential for inaccurate results arising from variables 3.4. Collect data using manual and electronic methods 3.5. Check data for accuracy 3.6. Report problems with the required data or the operation of the equipment to appropriate persons
4. Log data	4.1. Import selected data into data analysis software 4.2. Evaluate data for preliminary indication of non-conformity and trends or patterns 4.3. Collate findings from data and report to appropriate persons 4.4. Store data for later retrieval in accordance with team procedures

ELEMENT	PERFORMANCE CRITERIA
5. Maintain data acquisition equipment	5.1. Clean, maintain and prepare equipment and support material ready for further use and store in accordance with manufacturer specifications and team requirements 5.2. Conduct systems check 5.3. Tag unserviceable equipment and document faults in accordance with team procedures 5.4. Complete operator maintenance in accordance with manufacturer specifications and team procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- technical skills to the level required to use technology related to preparing for and collecting data electronically, data representation and the maintenance of data acquisition systems, including electronic data acquisition systems, calculators and measuring devices and computer-aided systems
- communication skills to the level required to communicate effectively regarding work requirements and specifications with the supervisor and with other workers within the team, to communicate ideas and information, to report data collection and data systems outcomes and problems, and to relate to people from a range of social, cultural and ethnic backgrounds and of varying physical and mental abilities
- literacy skills to the level required to understand information related to work orders, including common industry terminology, plans and safety procedures, and to interpret team requirements, technical information and specifications
- numeracy skills to the level required to accurately collect, log, represent and analyse data
- problem-solving skills to the level required to anticipate changing information requirements or influences
- team skills to the level required to work effectively and cooperatively with others to recognise dependencies, and use cooperative approaches to optimise workflow and productivity

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge includes:

- end users of motorsport data and their needs
- manual and electronic data collection and logging methods and techniques, including the production and use of worksheets and checklists
- types, characteristics, components, uses and limitations of data acquisition systems
- techniques for inspection and basic fault-finding of data acquisition systems
- procedures for reporting equipment faults and data irregularities
- preliminary data evaluation techniques
- manufacturer, component supplier and team guidelines regarding acceptable tolerance levels
- team policies and procedures, including quality requirements, and reporting and recording procedures related to collecting and logging data
- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including OHS, personal safety and environment, relevant to collecting and logging motorsport data

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently:

- apply team requirements, controlling body and category rules, and supplementary regulations
- observe and apply safety procedures and requirements including the use of personal protective equipment
- follow task instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to competition vehicle or equipment
 - achieve required outcomes within team time and quality standards
- correctly collect and log data using manual and electronic systems on a minimum of two (2) occasions, covering each of the following:
 - vehicle data
 - weather data
 - circuit data
 - driver/rider characteristics
- collect and log data within team quality and time line standards
- work effectively with others
- modify activities to cater for variations in workplace context and environment
- follow team data security and confidentiality procedures and processes at all times.

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or a simulated environment that reflects as far as possible the actual working environment.
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.
- Assessment is to comply with relevant regulatory requirements, including specified Australian standards.

EVIDENCE GUIDE	
	- Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability. - The following resources should be made available: - a range of electronic systems and components - specifications and work instructions - relevant information, including manufacturer specifications.
Method of assessment	- Assessment must satisfy the endorsed Assessment Guidelines of this Training Package. - Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of Required Skills and Knowledge. - Assessment methods must be by direct observation of tasks and include questioning on Required Skills and Knowledge to ensure its correct interpretation and application. - Assessment may be applied under project-related conditions (real or simulated) and require evidence of process. - Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances. - Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.
Guidance information for assessment	Assessment processes and techniques must be culturally sensitive and appropriate to the language and literacy capacity of the candidate and the work being performed.

Range Statement

RANGE STATEMENT
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Essential operating conditions that may be present with training and assessment (depending on the work

RANGE STATEMENT	
situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Motorsport data	Motorsport data may include: • vehicle data • weather data • circuit data • driver/rider characteristics
Manual data collection	Manual data collection may include using: • observation • listening • stop watches • video cameras • radar guns • instrument telltales • temperature tape or paint
Electronic data acquisition system components	Electronic data acquisition system components include: • sensors and transducers • electronic or dash loggers • analysis software • wiring looms or electrical connectors • lap beacons • communications and telemetry components
Team policies and procedures	Team policies and procedures may include: • team requirements relating to data acquisition • team procedures relating to the use of data acquisition systems and equipment • task instructions, including worksheets, checklists and plans • team procedures relating to reporting and communication • team procedures relating to the use of tooling and equipment • quality policies and procedures, including Australian standards • OHS, sustainability, environment, equal opportunity and anti-discrimination • manufacturer specifications and industry codes

RANGE STATEMENT	
	of practice • safe work procedures • reporting and recording procedures
Tooling and equipment	Tooling and equipment may include: • data acquisition system • multimeters • calculators • mathematical tables • graphing and charting equipment • computers and manual data collection equipment
Information and documents	Information and procedures may include: • controlling body rules, category rules and supplementary regulations • team procedures and standards related to: • collecting and logging data • reporting and communication • use of tooling and equipment • emergency service contacts and team persons emergency contacts • team emergency and event procedures for accidents or injury • work instructions, including worksheets, material safety data sheets (MSDS), assembly procedures, plans, drawings, designs and checklists • manufacturer/component supplier specifications and application procedures for test equipment and material • safety body publications • environmental, hazardous chemicals and dangerous goods legislation and local requirements relating to the disposal and use of fuels, lubricants, coolants and cleaning agents.
Legislative requirements	Legislative requirements are to be in accordance with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice, and may include: • award and enterprise agreements • industrial relations

RANGE STATEMENT	
	• Australian standards • Australian Design Rules • confidentiality and privacy • OHS • the environment • equal opportunity • anti-discrimination • duty of care
OHS requirements	OHS requirements are to be in accordance with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include: • personal protective equipment and clothing • safety equipment • first aid equipment • hazard and risk control • elimination of hazardous materials and substances • manual handling, including shifting, lifting and carrying • emergency procedures • team insurance requirements
Environmental requirements	Environmental requirements may include: • waste management • noise • dust • clean-up management

Unit Sector(s)

Unit sector	Motorsport
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Co-requisite units

Co-requisite units	
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Co-requisite units		

Competency field

Competency field	
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