



Australian Government

FWPFRM5007 Process and interpret harvester and forwarder optimisation data

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to use and apply a software program for processing harvesting and forwarding optimisation data, compatible with Standard for Forest Machine Data and Communication (StanForD), to monitor wood flow planning and production. This unit includes confirming wood flow planning and production data requirements, accessing StanForD compliant data, using software application features to process data and conduct production and wood flow analysis, and generating reports of production and wood flow across sites, machines and time.

The unit applies to individuals who work as foresters, harvesting managers, wood flow coordinators, value recovery coordinators, forestry planners and forestry contractors in a forest or plantation setting.

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

Pre-requisite Unit

Nil

Unit Sector

Forest Resource Management (FRM)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Confirm availability of computer hardware and software required for task

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Check software, hardware and internet access for serviceability 1.3 Confirm functionality of antivirus software and procedures
2. Use software package to process StanForD compatible harvester and forwarder production data	2.1 Open software from a laptop computer, personal computer or network terminal 2.2 Use operator manual and online help function to locate details of software features and instructions for use 2.3 Receive and transfer data files from email to software package 2.4 Confirm wood flow planning and production data requirements according to work order or work instructions 2.5 Access StanForD compliant data according to work requirements and software developer guidelines 2.6 Use software application features to process data according to software developer guidelines and workplace requirements 2.7 Perform routine checks to ensure accuracy of information according to quality requirements
3. Produce and interpret reports of processed harvester and forwarder production data	3.1 Select options for constructing data production and wood flow reports according to software developer guidelines and workplace procedures 3.2 Generate reports of production and wood flow across sites, machines and time using features of software package 3.3 Interpret reports of production and wood flow across sites, machines and time 3.4 Reference data sources according to software developer guidelines and workplace procedures
4. Maintain records	4.1 Maintain archived data according to software developer guidelines and workplace standard procedures 4.2 Maintain hard copy data according to software developer guidelines and workplace standard procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Read operating procedures, online help and/or software developer instructions
Writing	Enter routine text and technical terms production and wood flow planning reports
Oral communication	Ask questions to clarify data requirements and harvester header, production and wood flow information
Numeracy	Interpret numerical and graphical information related to production and wood flow planning

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPFRM5007 Process and interpret harvester and forwarder optimisation data	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPFRM5007 Process and interpret harvester and forwarder optimisation data

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has used a StanForD compatible software program to process harvesting and forwarding optimisation data for monitoring wood flow and production in a forestry or plantation setting.

In undertaking these activities, the individual has used the software program and relevant:

- harvester production files to produce six separate reports. Each report must be on one of the following aspects of harvester production:
 - comparison of wood flow production against planned production
 - monitoring harvested log volume by length and diameter classes or actual length and diameter
 - monitoring trees removed from a stand, including diameter distributions of stems harvested
 - comparison of harvester data against docket or target data
 - comparison of operator use of optimiser and manual over-ride
 - mapping of harvester Global Positioning System (GPS) falling location data to identify areas harvested within the forest to current date
- harvester calibration files to generate one report on calibration across harvesters within pre-determined limits
- forwarder production files to produce three separate reports. Each report must be on one of the following aspects of forwarder production:
 - monitoring forwarded logs by length and value
 - monitoring forwarded logs by weight
 - monitoring forwarded log by product type.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of

- Standard for Forest Machine Data and Communication (StanForD) data standards and file types
- machine types and their capability
- principles of value and value recovery in timber harvesting
- wood flow planning procedures
- uses of harvester and forwarder data:
 - improve value and volume recovery
 - production reporting and planning
 - monitor volumes of product length mix from areas being harvested
 - monitor production targets against production data (stem count by diameter at breast height class)
 - map and monitor area harvested in thinning and clear-fell operations
 - reduce production risks through fewer rejects
 - monitor machine calibration
 - monitor cutting strategies
 - monitor operator value recovery
- machine measurement accuracy and calibration and impact on data accuracy
- causes of harvester and docket or target data mismatch:
 - operators not correctly recording harvest data
 - missing bark function
 - different use of conversion factors
 - harvester calibration control checks
- basic GPS concepts
- software package for processing optimisation data:
 - procedures for inputting data and generating reports
 - terminology
- procedures for receiving and transferring data files, constructing reports and recording maintenance
- antivirus software procedures.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a forest work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- computer software for analysing harvester and forwarder data
- computer hardware
- internet access
- StanForD compliant data on harvesting operations
- specifications:
 - workplace policies and procedures applicable to using computer software and hardware
 - production plan
 - workplace safe operating procedures for using computer software and hardware
 - user manual for computer software and hardware.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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