

FWPCOT4XXX Process [and interpret](#) harvester [and forwarder](#) optimisation data

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Modification history

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

FWPCOT4XXX	Process and interpret harvester and forwarder optimisation data
Application	<p>This unit of competency describes the skills and knowledge required to use and apply a software program for processing harvesting and forwarding optimisation data to monitor wood flow planning and production. This unit includes confirming wood flow planning and production data requirements, accessing Standard for Forest Machine Data and Communication (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.</p> <p>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.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Forest Growing and Management Harvesting and Haulage

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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 Review work order, workplace health and safety, environmental protection and emergency procedures to determine job requirements and, where required, seek clarification from appropriate personnel 1.2 Identify and report hazards according to workplace health and safety requirements to maintain safe work practices 1.3 Consult with appropriate personnel to ensure that work is coordinated effectively with others in the workplace 1.4 Confirm availability of computer hardware and software required for task 1.5 Check software, hardware and Internet access for serviceability 1.6 Confirm functionality of antivirus software and procedures.
2. Use software package to process StanForD compatible 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

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Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Produce <u>and interpret</u> reports of processed production data	<p>3.1 Select options for constructing data production and wood flow reports according to software developer guidelines and workplace procedures</p> <p>3.2 Generate reports of production and wood flow across sites, machines and time <u>using features of software package</u></p> <p>3.3 Interpret reports of production and wood flow across sites, machines and time</p> <p>3.4 Reference data sources according to software developer guidelines and workplace procedures</p>
4. Maintain records	<p>4.1 Maintain archived data according to software developer guidelines and workplace standard procedures</p> <p>4.2 Maintain hard copy data according to software developer guidelines and workplace standard procedures</p>

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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	<ul style="list-style-type: none"> Read operating procedures, online help and/or software developer instructions
Writing	<ul style="list-style-type: none"> Enter routine text and technical terms production and wood flow planning reports
Oral Communication	<ul style="list-style-type: none"> Ask questions to clarify data requirements and harvester header, production and wood flow information
Numeracy	<ul style="list-style-type: none"> 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
FWPCOT4XXX Process harvesting optimisation data	Not applicable	New unit	No equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47
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TITLE	Assessment requirements for FWPCOT4XXX Process and interpret harvester and forwarder optimisation data
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 software program to process harvesting and forwarding optimisation data for monitoring wood flow and production in a forestry or plantation setting. In undertaking this work, the individual has used the software program and relevant:	
<ul style="list-style-type: none"> • harvester production files to produce six separate reports. Each report must be on one of the following aspects of harvester production: <ul style="list-style-type: none"> • 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 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: <ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • procedures for inputting data and generating reports • terminology • file and record maintenance procedures • antivirus software procedures 	

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produced at least four reports each based on a different type of Standard for Forest Machine Data and Communication (StanForD) file:¶
APT (harvester cutting instruction)¶
PRI (production data) including a single or multiple PRI files across machines, sites, regions and contractors for a single date or a date range¶
STM (harvester head diameter measurements) ¶
KTR (harvester head calibration data) ¶
used generated reports to review and/or monitor: ¶
cutting instruction data used by a harvester¶
wood flow¶
harvested log volume by length and diameter classes or actual length and diameter¶
trees removed from the stand, including diameter distributions of stems harvested

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used generated reports to compare:¶

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StanForD harvester files¶
PRI (production data)¶
PRD (log count and volume grade mix) ¶
STM (harvester head diameter measurements) ¶
APT (harvester cutting instruction)¶
KTR (harvester head calibration data) ¶

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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 real or simulated forestry site
- resources, equipment and materials:
 - computer software for analysing harvester [and forwarder](#) data
 - computer hardware
 - Internet access
 - StanForD compliant data on harvesting operations
- specifications:
 - access to work order or instruction detailing wood flow planning and production data requirements
 - access to workplace policies and procedures which cover current Work Health and Safety Acts or Occupation Health and Safety Acts, regulations and related industry standards and codes of practice applicable to using computer software and hardware
 - access to workplace policies and procedures which cover current Environment Protection Acts, regulations and related industry standards and codes of practice applicable to using computer software and hardware
 - access to production plan
 - access to workplace safety and environmental protection plans access to site emergency procedure
 - access to workplace safe operating procedures for using computer software and hardware
 - access to 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

Companion Volume implementation guides are found in VETNet:
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

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