Australian Government

ICPPRP495 Manipulate 3D graphics files in preparation for 3D printing

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

ICPPRP495 Manipulate 3D graphics files in preparation for 3D printing

Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to assess and rectify manifold errors and convert graphics files to a usable format for three-dimensional (3D) printing.

It applies to individuals with higher technical skills in 3D printing technologies who provide 3D printing services to internal or external clients.

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

Unit Sector

Pre-Press

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. Assess image quality	1.1 Graphics file is received and requirements for precision, quality and materials are determined from specifications and confirmed with client 1.2 Graphics file is assessed to select software required to perform adjustments 1.3 File is opened and faults, imperfections and manifold errors are identified against client specifications 1.4 Time and cost of work required to rectify identified faults, imperfections and errors are calculated 1.5 Client is informed of work requirements and approval obtained for planned work
2. Prepare a precision 3D print file	2.1 File is manipulated to remove imperfections and manifold errors 2.2 Output file is prepared according to specifications 2.3 Graphics file quality is reviewed with client and sign off is obtained 2.4 File is saved in a format appropriate for 3D printing

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 1.3, 2.2	• Analyses graphic files and specifications to determine requirements
Writing	2.2	• Names data files using appropriate naming convention
Oral communication	1.1, 1.5, 2.3	• Presents complex information using clear and convincing language, tone and pace appropriate for the audience and purpose
Numeracy	1.4, 2.1, 2.2	• Performs mathematical calculations appropriate to graphics software to ensure accuracy, scale and tolerances are being met • Estimates works requirements
Interact with others	1.1, 1.5, 2.3	• Understands what to communicate, with whom and how, in routine work situations
Get the work done	1.1-1.5, 2.1-2.4	• Accepts responsibility for planning and sequencing complex tasks and workload, negotiating key aspects with client • Uses problem solving techniques to evaluate errors and manipulate graphics images • Uses digital technologies and applications to manage and manipulate data

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPPRP495 Manipulate 3D graphics files in preparation for 3D printing	Not applicable	New unit	No equivalent unit

Links

Companion volumes are available from the IBSA website - http://companion_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=17