



Australian Government

ICTGAM304 Develop three-dimensional (3D) models for digital games

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with the Information and Communications Technology Training Package Version 8.0. Supersedes and is equivalent to ICTGAM301 Apply simple modelling techniques. Updated title to better reflect unit scope.

Application

This unit describes the skills and knowledge required to prototype and refine three-dimensional (3D) object designs for a variety of digital games, using simple modelling techniques and software.

The unit applies to individuals who may work in roles such as digital media developers and content designers, who support the design and development stages of basic digital games.

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

Unit Sector

Game development

Elements and Performance Criteria

ELEMENT	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 to apply 3D modelling techniques	1.1 Confirm work brief and tasks according to organisational policies and procedures 1.2 Identify work-flow sequences and production timelines according to work brief 1.3 Select software and resources required to model 3D objects 1.4 Identify and document digital asset management processes and requirements of 3D modelling for digital games

ELEMENT	PERFORMANCE CRITERIA
2. Prototype 3D digital models	2.1 Model 3D object prototype according to work brief 2.2 Manipulate software features according to work brief 2.3 Confirm that model topology allows for required deformation 2.4 Check and refine model for integrity 2.5 Confirm that model meets design requirements 2.6 Seek feedback on model from required personnel 2.7 Make adjustments to model, where required
3. Finalise 3D digital models	3.1 Export digital 3D model in required gaming format 3.2 Submit model to required personnel 3.3 Save and store model according to organisational policies and procedures 3.4 Complete workplace documentation according to organisational requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Numeracy	Uses foundational arithmetic when interpreting integers and decimals and when manipulating measurement, scale, and ratio
Oral communication	Listens and responds to instructions and questions and clarifies requirements
Reading	- Interprets documentation, diagrams, designs, objects and images to identify required information - Identifies and comprehends signs, symbols, pictures, jargon, abbreviations, computer-generated text, numbers and letters to operate modelling application software
Planning and organising	Develops plans for completion with sequenced, prioritised steps and timeframes
Technology	Uses key features of specific digital systems and tools to complete routine tasks

Unit Mapping Information

Supersedes and is equivalent to ICTGAM301 Apply simple modelling techniques.

Links

Companion Volume Implementation Guide is found on VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTGAM304 Develop three-dimensional (3D) models for digital games

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- develop at least two different three-dimensional (3D) objects for a digital game.

In the course of the above, the candidate must:

- meet production documentation requirements within production deadlines
- apply required organisational policies and procedures.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- functions and features of 3D digital modelling tools and techniques
- methods of prototyping, designing, producing and delivering digital 3D models
- functions and features of 3D digital model development software, hardware and components
- techniques to safely save and store 3D digital models
- concepts of geometry that apply to the creation of realistic 3D digital models for digital games
- key processes and requirements to create 3D digital gaming models
- relevance of scale, form, weight and volume to prototyping 3D digital models for digital games
- key copyright considerations associated with designing and creating 3D digital models
- organisational formats for documentation
- organisational policies and procedures, and legislative requirements relating to work tasks.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- digital model production hardware, components and resources
- industry software packages and game engines
- opportunities for interaction with others
- work brief and organisational policies and procedures required to demonstrate the performance evidence.

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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