



Australian Government

ICTGAM512 Create and implement designs for a 3-D games environment

Release: 1

ICTGAM512 Create and implement designs for a 3-D games environment

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to create and implement designs within the context of a 3-D games environment.

It applies to individuals with highly developed communication and technical skills working as concept artists, game designers, games programmers, animators, and other personnel working in the game development industry.

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. Identify the technologies to be used with 3-D games development	1.1 Discuss and decide on 3-D modelling software for the production of designs, and ramifications of choice with the relevant personnel 1.2 Discuss and decide on 2-D image-editing software for textures with relevant personnel 1.3 Establish 3-D production considerations for available computer hardware
2. Develop design documentation for 3-D	2.1 Establish a theme for design, and determine the required modelling assets

ELEMENT	PERFORMANCE CRITERIA
effects	2.2 Create a file archiving system for the storage of 3-D components, models and versions 2.3 Establish the project development pipeline and production deadlines, to meet assessment dates
3. Develop and create storyboards	3.1 Create a storyline for animation 3.2 Develop storyboard that implements the storyline document 3.3 Review and finalise the storyboard document for implementation
4. Develop and create projects	4.1 Create a new document and conduct the creation of models as outlined in the production pipeline, theme, and storyboard documents 4.2 Archive the project as specified by the assignment criteria for submission

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	3.2, 3.3, 4.1, 4.2	Interprets analyses and comprehends conceptual information to inform job requirements
Writing	2.2, 3.1-3.3, 4.1	- Transforms creative ideas into readily-understood information for specific audiences, using clear and detailed language - Develops material regarding the advantages, and limitations of, different technologies using explicit language to convey information and requirements
Oral Communication	1.1, 1.2	- Elicits information using effective listening and open questioning techniques - Speaks clearly and concisely, converting highly technical language and terminology to plain English, when providing information
Get the work done	1.1-1.3, 2.1-2.3, 3.1-3.3, 4.1, 4.2	- Actively sources, analyses, and evaluates applications with the potential to meet 3-D game design requirements - Uses key features, of specific digital systems and tools

		to complete design tasks • Understands the importance of file structure, and takes responsibility for data integrity and management • Uses creativity and initiative in 3-D game design • Plans, organises and completes work according to defined requirements and schedules taking responsibility for decisions, and sequencing tasks to achieve efficient outcomes • Uses a systematic process to evaluate work and implement improvements
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM512 Create and implement designs for a 3-D games environment	ICAGAM512A Create and implement designs for a 3-D games environment	Updated to meet Standards for Training Packages. Minor edits to clarify intent of the performance criteria.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTGAM512 Create and implement designs for a 3-D games environment

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Performance Evidence

Evidence of the ability to:

- use discussion to identify the most appropriate technology for 3-D games development
- create and develop design documents for 3-D effects, including timelines for completion and file archiving system
- develop and use a storyline and storyboard to produce a 3-D games project.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the concepts of animation techniques
- explain the concepts of digital effects generation
- discuss and evaluate 2-D and 3-D graphics editing software and their common concepts
- provide a detailed summary of appropriate graphics formats for 3-D games.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the game development field of work, and include access to:

- computer hardware and software
- games engines
- file storage.

Assessors must satisfy NVR/AQTF assessor requirements.

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