



Australian Government

ICTGAM525 Apply digital texturing for the 3-D environment in digital games

Release: 1

ICTGAM525 Apply digital texturing for the 3-D environment in digital games

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 research, select techniques, and apply industry standard graphic software tools, to digital texturing for the 3-D environment in digital games.

It applies to individuals with high-level technical, interpretive and communication skills and may be applicable to 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. Research common industry practices for texturing a 3-D environment	1.1 Research, identify and describe the methods of texture creation and texture mapping 1.2 Choose a suitable graphics software to create textures 1.3 Document the design considerations for texturing a 3-D environment
2. Create a basic 3-D environment	2.1 Use 3-D modelling and animation software 2.2 Create simple 3-D objects

ELEMENT	PERFORMANCE CRITERIA
	2.3 Place the objects in a 3-D environment 2.4 Apply inbuilt lighting effects to the 3-D environment
3. Create multiple textures to apply to the 3-D environment	3.1 Use graphics software 3.2 Apply industry-standard methods to create the textures 3.3 Create textures to establish the look, and the feel, of the 3-D environment
4. Apply multiple texture effects to a 3-D environment	4.1 Load the textures into the 3-D animation and modelling software 4.2 Apply the textures to colour the 3-D objects and environment 4.3 Use texture-mapping techniques to create multiple texture effects for a single 3-D object 4.4 Employ 3-D animation and modelling software to render an image of the 3-D environment

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	- Researches common industry practices to interpret technical design terminology - Interprets and comprehends a large range of diagrams, icons, symbols, text, numbers and letters, necessary to use complex design software
Writing	1.1, 1.3	Uses correct spelling and grammar, plain English, specific terminology and appropriate document layout when documenting methodologies and design considerations
Numeracy	2.1, 2.2, 2.3	Uses whole numbers, decimals and percentages relevant to measurement, resolution aspect ratio, pixel ratio, scale, coordinates, colour, shading, and other attributes/variables in the application of digital effects
Get the work done	1.1-1.3, 2.1-2.4, 3.1-3.3, 4.1-4.4	- Plans, organises and completes tasks according to defined requirements and schedules - Makes decisions directly related to completion of

		required tasks • Uses creativity and initiative to visualise concepts • Actively sources, analyses and evaluates methodologies and software with the potential to meet 3-D texturing requirements • Uses key features of specific digital systems and software to complete design and creation tasks
--	--	---

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM525 Apply digital texturing for the 3-D environment in digital games	ICAGAM525A Apply digital texturing for the 3-D environment in digital games	Updated to meet Standards for Training Packages	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 ICTGAM525 Apply digital texturing for the 3-D environment in digital games

Modification History

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

Performance Evidence

Evidence of the ability to:

- research, select and document suitable techniques and software to create texturing for a 3-D environment
- use modelling and animation software to create 3-D objects in a 3-D environment
- use graphics software to create multiple textures appropriate for a 3-D environment
- produce a final rendered image of a 3-D environment that incorporates multiple texture effects for a single 3-D object.

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:

- summarise the technology and human resources required in the process of creating textures for the 3-D environment
- discuss the capabilities and constraints of graphics software for texturing
- provide a detailed summary of the methods of texture creation and texture mapping
- explain the design considerations for texturing including resource limitations and constraints, and target markets.

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

- the internet for research purposes.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

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