



Australian Government

ICTGAM523 Collaborate in the design of 3-D game levels and environments

Release: 1

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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 plan, and implement, the design of an interactive 3-D game in a team environment.

It applies to individuals with high-level technical and communication 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. Research and plan the design process	1.1 Select a project planning methodology 1.2 Identify the design practices and design considerations in collaboration with other team members 1.3 Record the stages of the design process, using the project brief and documents 1.4 Identify the team roles that relate to level creation and design 1.5 Plan and implement a design process using time-management principles

ELEMENT	PERFORMANCE CRITERIA
2. Conceptualise a 3-D environment design in collaboration with team	2.1 Identify the key level specifications, and purpose, for the 3-D environment 2.2 Gather and analyse reference materials in collaboration, to help with visualisation of 3-D environment, including environment profiles, game genre, game design and game-play elements 2.3 Catalogue the required objects of the level environment 2.4 Identify the appropriate 3-D modelling and animation software, and painting, shading and texturing software that can be used to create the 3-D environment 2.5 Document the design decisions that are made before, and during, the design conceptualisation 2.6 Produce the concept art of the designed environment
3. Present the conceptualised environment to peers	3.1 Present the conceptualised environment to peers and receive feedback 3.2 Report on how the design decisions have met the requirements for game-play elements 3.3 Justify why certain design decisions were made 3.4 Receive and consider peer feedback
4. Refine the design	4.1 Implement quality assurance principles 4.2 Incorporate user feedback to modify the design 4.3 Finalise the design decision documents in readiness for creating 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	2.2, 3.4	Interprets analyses and comprehends briefs, instructions, and conceptual information to inform job requirements
Writing	1.2, 1.3, 2.3, 2.5, 2.6, 3.1, 3.2, 3.3, 4.2, 4.3	- Develops readily-understood technical, design and instructional documentation - Documents the decision-making process for specific

		audiences, using clear and detailed language
Oral Communication	1.2, 3.1, 3.2, 3.3, 3.4	- Speaks clearly and concisely, converting highly technical language and terminology to plain English, when providing information - Elicits information using effective listening and open questioning techniques - Provides information, support and feedback to colleagues and management
Interact with others	1.2, 1.4, 2.2, 3.1	- Recognises and applies the protocols governing what to communicate, with whom and how - Cooperates and collaborates with others to achieve shared outcomes
Get the work done	1.1-1.5, 2.1-2.6, 4.1-4.3	- Takes responsibility for planning and organising tasks required to achieve required outcomes, including coordinating tasks with others - Makes a range of critical and non-critical decisions in relatively complex situations, using analytical processes to evaluate and choose appropriate options - Understands and explicitly applies some basic principles of analytical and lateral thinking - Reflects on the ways in which digital systems and tools are used, or could be used, to achieve work goals for modelling and animation - Manages and maintains files in a variety of storage media and formats

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM523 Collaborate in the design of 3-D game levels and environments	ICAGAM523A Collaborate in the design of 3-D game levels and environments	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 ICTGAM523 Collaborate in the design of 3-D game levels and environments

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Performance Evidence

Evidence of the ability to:

- collaborate with others to plan and implement the design process for creating an interactive 3-D environment
- produce and present draft design documents for the production of an interactive 3-D environment, and gather feedback
- review and modify the designs to create a finalised design for a 3-D environment.

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 budgeting and scheduling considerations for game design
- discuss the capabilities and constraints of game engines
- discuss the process used for computer game development
- outline current game-play hardware and software products, together with any technical constraints that products impose on graphics and code development, and creative visual design
- explain the technology and human resources required in the process of creating a game, including the team's respective skills.

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.

Links

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