



Australian Government

ICTGAM552 Create complex 3-D characters for games

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 6.0.

Application

This unit describes the skills and knowledge required to plan, and implement, a design for complex 3-D characters for games.

The unit applies to those with high-level technical, interpretive 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. Clarify work requirements	1.1 Identify design requirements according to project brief and documents 1.2 Conceptualise game environment characters, design, level specifications and genre according to project brief 1.3 Gather and analyse materials required to design and visualisation of 3-D character models 1.4 Identify texturing tools, including painting, shading and texturing software and 3-D modelling tools
2. Conceptualise 3-D character design	2.1 Determine and document design decisions according to project requirements 2.2 Determine and document key attributes of characters 2.3 Examine design considerations and generate 3-D characters

ELEMENT	PERFORMANCE CRITERIA
	concept art
3. Create complex 3-D characters	3.1 Create base 3-D character models according to design specifications 3.2 Refine and polish character models 3.3 Create and map 3-D character models textures 3.4 Refine textures and apply shaders according to design specifications 3.5 Check integrity and modify 3-D characters according to design specifications
4. Finalise 3-D character creation tasks	4.1 Present finished 3-D characters to required personnel and seek and respond to feedback 4.2 Report on how design decisions have met 3-D character's design requirements 4.3 Present 3-D model to required personnel and seek and respond to feedback

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 whole numbers, decimals and percentages applicable to measurement, resolution aspect ratio, pixel ratio, scale, coordinates, colour, shading, and other attributes/variables in the application of digital effects
Oral communication	Articulates requirements and responsibilities clearly and distinctively, using industry standard technical language intended for audience and environment
Reading	- Interprets, analyses and comprehends briefs, instructions and conceptual information, to inform the design of environment specifications - Interprets large range of diagrams, icons, symbols, text, numbers and letters necessary to use complex design software
Writing	Communicates software and graphics requirements and code development to others, using applicable spelling and grammar, plain English, and industry terminology
Planning and organising	- Plans, organises and completes work according to project brief and schedules, sequencing tasks to achieve efficient outcomes - Sources and analyses reference materials to support 3-D character

SKILL	DESCRIPTION
	design
Problem solving	• Uses creativity and initiative in 3D character design and creation • Uses systematic, analytical processes in routine and non-routine

Unit Mapping Information

Supersedes and is equivalent to ICTGAM526 Create complex 3-D characters for games.

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 ICTGAM552 Create complex 3-D characters for 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:

- plan and manage design process for creating at least two 3-D character models according required design brief.

In the course of the above, the candidate must:

- incorporate design specifications and create complex 3-D character models
- produce and deliver documentation, showing evidence of concepts creation and design decisions.

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:

- budgeting and scheduling considerations for game design
- process used for computer game development
- industry standard game-play hardware and software products, including technical constraints imposed on design and development
- technology and human resources required in the process of creating a game and outline the team members' respective skills.

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:

- computer hardware and software
- games engine

- file storage.

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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