



Australian Government

ICTGAM403 Create design documents for interactive games

Release: 1

ICTGAM403 Create design documents for interactive 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 create a game concept, develop and document the game specifications.

It applies to individuals who support the design, development and programming of basic digital games and design, develop and use digital media technologies as part of a larger development team.

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, create and document the game concept	1.1 Research, identify and describe the target market for the game 1.2 Research, identify and describe the game genre and its working title 1.3 Identify a suitable game platform 1.4 Identify a suitable game engine 1.5 Prepare the initial concept art to establish the look, and feel, of the characters, environment and game play
2. Create and document the specifications for	2.1 Develop the storylines and levels 2.2 Develop the artwork for the characters and environment

ELEMENT	PERFORMANCE CRITERIA
game design	2.3 Identify the game-play elements 2.4 Develop the graphical user interface (GUI) 2.5 Identify suitable sounds and music for the game
3. Create, and document, the technical specifications for the game	3.1 Determine game mechanics 3.2 Finalise the platform, game engine and operating system 3.3 Specify the source and purpose of the code to be used, including level-specific code 3.4 Determine the game physics and artificial intelligence 3.5 Determine the sound engineering requirements 3.6 Determine the procedures needed to test the game prototype
4. Collate the game design document	4.1 Define the proposed game features in comparison to existing games 4.2 List the estimated resources required to develop the game 4.3 Prepare the estimated schedule for game development 4.4 Collate the design information, estimates and proposals into a comprehensive game design document

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, 1.2, 1.3, 1.4, 2.5	Interprets and comprehends technical documentation, financial information, and statistical data to investigate the target market and to identify suitable resources
Writing	1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4.1, 4.2, 4.3, 4.4	- Uses clear, concise language, accurate spelling, technical terminology and appropriate layout when developing the technical and financial aspects of the game design document - Employs a wide range of descriptive language to create a cohesive and well-structured outline of the game, characters, environment and elements

Oral Communication	1.1, 1.2, 1.3, 1.4	• Uses effective listening and open questioning techniques to elicit the view and opinions of others, and to obtain information
Numeracy	1.1, 1.3, 1.4, 2.1, 2.3, 2.4, 2.5, 3.4, 3.5, 3.6, 4.1, 4.2, 4.3, 4.4	• Uses whole numbers, decimals and percentages to outline parameters and attributes in a wide range of technical specifications • Interprets financial and statistical information and adds, subtracts, multiplies and divides whole numbers and decimals when researching the target market and estimating resources and schedules
Get the work done	1.1-1.5, 2.1-2.5, 3.1-3.6, 4.1-4.4	• Takes responsibility for planning, sequencing and prioritising tasks to achieve outcomes • Makes routine decisions and implements standard procedures for routine tasks, using formal decision making processes for more complex and non-routine situations • Uses creativity and initiative in design • Uses specific digital systems, applications and tools to complete routine tasks • Understands the importance of secure information in relation to own work, and takes responsibility for data integrity and management

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM403 Create design documents for interactive games	ICAGAM403A Create design documents for interactive games	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 ICTGAM403 Create design documents for interactive games

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Performance Evidence

Evidence of the ability to:

- develop concept art for characters, environments, splash screens, start screens and game field screens consistent with an identified game genre and design specifications
- develop technical specifications for game mechanics, artificial intelligence, physics, sound, game play and overall usability
- develop game design documents to required industry standard, consistent with client brief and specifications.

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:

- discuss the process of computer game development
- compare and discuss current game-play hardware and software products
- outline the technical constraints that hardware and software impose on design and development
- outline the techniques for applying concept development skills
- outline the techniques for applying concept visualisation 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:

- the internet for research purposes
- computer hardware, software and peripheral devices suitable for game development
- games engines.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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