



Australian Government

ICTGAM422 Create design documents for interactive games

Release: 1

ICTGAM422 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 6.0.

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 game concept	1.1 Obtain client brief and identify applicable industry standards 1.2 Research, identify and describe target market, the game genre and its working title according to client brief 1.3 Identify game platform, game engine and operating system according to game requirements 1.4 Prepare initial concept art and establish look and feel of characters, environment and game play according to organisational guidelines 1.5 Document research, ideas and initial concept art according to organisational guidelines
2. Create and document game design	2.1 Develop storylines and levels 2.2 Develop characters and environment artwork

ELEMENT	PERFORMANCE CRITERIA
specifications	2.3 Identify game-play elements 2.4 Develop graphical user interface (GUI) 2.5 Identify sounds and music applicable to game 2.6 Document game design specifications according to organisational guidelines
3. Create and document technical game specifications	3.1 Determine game mechanics 3.2 Finalise platform, game engine and operating system 3.3 Specify source and purpose of code required including level-specific code 3.4 Determine game physics and artificial intelligence 3.5 Identify sound engineering requirements 3.6 Determine and document game prototype testing procedures
4. Collate game design document	4.1 Define proposed game features in comparison to existing games 4.2 List estimated resources required in game development 4.3 Prepare estimated schedule for game development 4.4 Finalise documentation and collate design information, estimates and proposals into a comprehensive game design document according to organisational guidelines 4.5 Present and obtain sign off on documents to required personnel

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	• Outlines parameters and attributes in a wide range of technical specifications using whole numbers, decimals and percentages • Interprets financial and statistical information and adds, subtracts, multiplies and divides whole numbers and decimals when researching target market and estimating resources and schedules
Oral communication	• Uses listening and questioning techniques to obtain required information and elicit views and opinions of others using appropriate industry language for intended audience
Reading	• Interprets and comprehends technical documentation, financial information and statistical data • Investigates target market and identifies applicable resources

SKILL	DESCRIPTION
Writing	Prepares documents detailing research and design using appropriate layout and required descriptive language in a cohesive and well-structured manner
Initiative and enterprise	Uses creativity and initiative in design
Planning and organising	Takes responsibility in planning, sequencing and prioritising tasks
Self-management	- Makes routine decisions and implements standard procedures in routine tasks - Uses formal decision-making processes in more complex and non-routine situations - Identifies importance of secure information in relation to own work and takes responsibility in data integrity and management
Technology	Completes routine tasks using specific digital systems, applications and tools

Unit Mapping Information

Supersedes and is equivalent to ICTGAM403 Create design documents for interactive 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 ICTGAM422 Create design documents for interactive 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:

- create and develop game design documents for at least one interactive game according to required industry standard and consistent with client brief and specifications.

In the course of the above, the candidate must:

- develop concept art for characters, environments, splash screens, start screens and game field screens consistent with identified game genre and design specifications
- develop technical specifications in game mechanics, artificial intelligence, physics, sound, game play and overall usability
- include a list of estimated resources required and a game development schedule.

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:

- game development processes
- basic programming techniques that may be used for interactive game development
- industry standard game-play hardware and software products
- technical constraints hardware and software impose on design and development
- techniques in applying concept development and concept visualisation skills
- industry standards applicable to creating and developing game design documentation
- organisational guidelines, documentation techniques and processes that may apply to creating design documents for interactive games.

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:

- the internet
- client brief
- required hardware, software and peripheral devices
- games-engine.

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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