



Australian Government

ICTGAM412 Design interactive media

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 design and implement technologies relating to human-computer interaction.

It applies to individuals who support the design, development and programming of basic digital games 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. Define human-computer hardware interface devices	1.1 Identify standard human-computer interaction devices 1.2 Identify game-specific human-computer interaction devices and the common controls used in their implementation
2. Research common event-handling systems	2.1 Identify and review industry-standard event-handling systems used in application libraries 2.2 Create an application, accessing and using technologies, and showcasing captured events from hardware devices 2.3 Consider the human-computer interaction device selection
3. Research commonly	3.1 Identify common widgets and their usage within an application

ELEMENT	PERFORMANCE CRITERIA
used graphical user interface (GUI) widget sets	environment 3.2 Identify and review industry-standard graphical user interface libraries, and their relevancy within game engine software 3.3 Consider the selection of widgets within a game heads-up display (HUD) 3.4 Use human-computer interface devices and event-handling call-backs in the creation of an application, showcasing the captured events with GUI widgets
4. Design a simple media software device	4.1 Design a prototype for the development of a custom user interface widget to be used within a game heads up display environment 4.2 Select GUI software for implementation and discuss the ramifications of the selection
5. Build and implement a simple media software device	5.1 Integrate all custom widget elements, as required by the prototype specifications 5.2 Make final checks to ensure that the functionality conforms to the original design 5.3 Save into specified storage systems

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, 2.1, 3.1, 3.2	- Identifies and evaluates online documentation containing complex technical terminology to conduct research into hardware, existing interactive media and industry standards - Interprets and comprehends computer-generated text, code, diagrams, icons, symbols, numbers and letters necessary to use the relevant software
Writing	2.2, 3.4, 5.1	Recognises and uses technical terminology, application terminology, code, syntax and labelling when conducting research and developing interactive media
Oral	1.1, 1.2, 2.3, 3.1,	Employs effective listening and open questioning

Communication	3.2, 3.3, 4.1	techniques to obtain information Participates in verbal exchanges of ideas and solutions using plain English and interactive media terminology, summarising the main points to ensure understanding
Numeracy	2.2, 2.3, 3.3, 3.4, 4.1, 4.2, 5.1, 5.2, 5.3	Uses whole numbers, decimals and percentages relevant to file size, software and hardware specifications, measurement, font size, scale, ratio, colour, shading and other attributes/variables in the development of interactive media
Get the work done	All	- Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information, and identifying and evaluating options against the agreed criteria - Uses analytical processes to decide on a course of action, establishing criteria for deciding between options, and seeking input and advice from others before taking action, when necessary - Uses key features of specific digital systems and tools, effectively to complete required tasks - Understands the importance of file integrity and management

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM412 Design interactive media	ICAGAM412A Design interactive media	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 ICTGAM412 Design interactive media

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Performance Evidence

Evidence of the ability to:

- define hardware and software requirements for the human-computer interaction environment
- research event handling systems and graphic user interfaces (GUI)
- design a simple application, using correct methods of hardware event handling, within the context of a video game environment
- produce a custom control for use within a large project
- present a completed project on time.

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:

- explain programming techniques appropriate to interactive media
- define specific terminology used by computer game developers
- describe common human-computer interaction devices and their application
- describe common widgets and their usage
- define a 'heads-up display'
- outline the technical constraints that hardware and software impose on design and development.

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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