



Australian Government

Assessment Requirements for ICTGAM535

Develop complex 3-D software for games and interactive media

Release: 1

Assessment Requirements for ICTGAM535 Develop complex 3-D software for games and interactive media

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

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:

- develop at least one complex 3-D software according to client specifications, on at least one occasion.

In the course of the above, the candidate must:

- employ multiple 3-D frameworks, engines and libraries
- create mesh primitives using 3-D library routines
- generate code and manipulate 3-D objects, including cameras, lights and mesh primitives
- use virtual objects in 3-D environments, including:
 - audio managers
 - cameras
 - lights
 - physics managers
 - viewports
- animate 3-D objects required by game play and:
 - include animation selection/playback for pre-constructed models
 - be based on user input
 - be driven by code
 - include dynamic camera movement as required by game play
- build a complex graphical user interface (GUI) for a 3-D environment
- select and deploy documentation tools
- create and maintain code documentation using applicable tools
- detect logical and coding errors and debug application as required
- comply with legislative and organisational standards.

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:

- processes involved in complex 3-D software development
- legislative and organisational standards applicable to development of complex 3-D software
- configuration processes for 3-D environments, including:
 - device selection
 - game resolution
 - screen colour depth
 - output performance including:
 - anti-aliasing
 - level of detail
 - filtering
 - caustics and refraction
- use of scripts and library routines in 3-D software development environments
- techniques for using multiple games-oriented libraries
- environmental elements in complex 3-D software and impacts on users
- handling and debugging techniques used when developing 3-D software for games and interactive media
- documentation techniques applicable to 3-D software development process
- object-oriented 3-D programming concepts and language
- techniques for using a graphical user interface (GUI) to interact with a user.

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:

- project brief
- software, hardware and 3-D equipment required in developing complex 3-D software for games and interactive media
- integrated development environment facilities
- integrated or third-party documentation tools
- technical manuals and materials applicable to complex 3-D software development
- existing multiple frameworks, search engines or games-oriented libraries.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>