Australian Government

CUADIG517 Design digital simulations

Release: 1

CUADIG517 Design digital simulations

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 5.0.

Application

This unit describes the skills and knowledge required to research, plan and design drafts for digital simulations of real-world environments and processes.

The unit applies to those who work closely with subject experts to develop virtual environments for fields including architecture, science and engineering, medicine, conservation and manufacturing. They may also collaborate with programmers and software authors so the simulation is technically achievable.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Visual communication – Digital content and imaging

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Identify project requirements	1.1 Confirm objectives and desired outcomes of project brief in consultation with required personnel 1.2 Identify target audience and determine format and delivery platform of simulations in discussion with required personnel
2. Research and plan approach	2.1 Investigate real world environment to be simulated and determine technical parameters that may be required 2.2 Evaluate designs and other information that may assist modelling real world environment 2.3 Determine performance objectives, task complexity and user skill levels 2.4 Determine required depth of physical and functional fidelity that

© Commonwealth of Australia, 2022 PwC's Skills for Australia

ELEMENT	PERFORMANCE CRITERIA
	meets production requirements 2.5 Research and identify applicable simulation authoring tools 2.6 Discuss ideas and solutions in collaboration with required personnel
3. Draft simulation design documents	3.1 Identify processes that determine functional behaviour of simulation and specify how this behaviour is represented by control objects 3.2 Define underlying functionality in model that specifies essential settings, states, conditions and parameters 3.3 Specify user interface controls that enable user interaction with simulation 3.4 Identify critical impacts, alerts or costs for incorrect user operation 3.5 Specify sequencing of difficulty levels, if required 3.6 Confirm proposed simulation is technically feasible in consultation with required personnel 3.7 Present clear and detailed draft simulation design specifications for discussion and feedback with required personnel 3.8 Outline positive and negative feedback from user responses when interacting with simulations, and adjust as required
4. Finalise simulation design documents	4.1 Review designs against desired project outcomes and objectives 4.2 Review designs against creative, technical and intellectual property requirements 4.3 Adjust design specifications as necessary after discussions with required personnel 4.4 Archive user interface controls

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
Oral communication	• Participates effectively in spoken interactions using language and features applicable to audience • Confirms project requirements and elicits feedback using questioning and listening strategies • Communicates with audience using industry standard practices and protocols

© Commonwealth of Australia, 2022 PwC's Skills for Australia

SKILL	DESCRIPTION
Reading	• Interprets and comprehends familiar and unfamiliar technical, descriptive, and legal textual information
Writing	• Documents information using correct formatting procedures, and uses specialised vocabulary when drafting design documents • Accurately incorporates modifications and user feedback in specification documentation
Initiative and enterprise	• Integrates prior knowledge with new technical research and feedback from required personnel • Ensures design integrity remains and continually generates and evaluates design ideas • Makes decisions that impact on entire project
Planning and organising	• Takes responsibility, coordinates and plans tasks and ensures project requirements met • Ensures project is continually assessed and evaluated
Self-management	• Adheres to legislative requirements related to intellectual property
Teamwork	• Works collaboratively with production personnel throughout all stages of project
Technology	• Assists with design tasks using digital tools

Unit Mapping Information

Supersedes and is equivalent to CUADIG507 Design digital simulations.

Links

Companion Volume Implementation Guide is found on VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5

© Commonwealth of Australia, 2022 PwC's Skills for Australia