



Australian Government

Department of Education, Employment and Workplace Relations

ICAGAM408A Use 3-D animation interface and toolsets

Release: 1

ICAGAM408A Use 3-D animation interface and toolsets

Modification History

Release	Comments
Release 1	This Unit first released with <i>ICAI1 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to use a 3-D package's animation interface and toolsets.

Application of the Unit

This unit applies to concept artists, game designers, games programmers, animators and other personnel working in the game development industry.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

1. Locate and identify 3-D application navigation controls	<p>1.1 Using chosen 3-D modelling and animation software, identify a range of 3-D navigation types, including panning, zooming and rotating around the viewport</p> <p>1.2 Identify methods of use for navigation, keyboard hot keys and input procedures to improve user performance</p>
2. Locate and identify 3-D animation toolsets	<p>2.1 Identify common toolsets of 3-D animation software</p> <p>2.2 Identify and analyse 3-D application menus and specific category types</p> <p>2.3 Use common 3-D application transformation types</p> <p>2.4 Select and use common 3-D application-specific toolset types</p>
3. Select and clarify appropriate menu categories for requirements	<p>3.1 Associate menu categories as required for specific tasks</p> <p>3.2 Consult with relevant personnel and use application hot keys for superior application interaction</p>
4. Initiate and use application-support materials	<p>4.1 Identify and research the range of reference material available for use in creating 3-D animation and digital effects</p> <p>4.2 Present reference material for use in the 3-D animation process</p> <p>4.3 Identify the native application support procedures</p> <p>4.4 Access support documents and help files through hotkey and application menus</p> <p>4.5 In consultation with relevant personnel use support material as required</p>
5. Identify and plan 3-D application import and export procedures	<p>5.1 Discuss with relevant personnel application file-management procedure types, including opening, importing, saving and exporting</p> <p>5.2 Discuss and use application project configuration procedures with relevant personnel</p> <p>5.3 Prepare and create projects as required</p>
6. Identify and use application feedback	<p>6.1 Discuss user application feedback with relevant personnel</p> <p>6.2 Use application feedback to troubleshoot error scenarios as required</p> <p>6.3 Use feedback with inbuilt support documentation as required</p>

7. Customise application interface	7.1 Identify variation of user interface windows and panels configurations 7.2 Use custom interface for specific requirements based on toolset procedural needs
------------------------------------	--

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to:
 - analyse documentation and images to inform implementation of game specifications
 - interpret briefs, work instructions, and technical and conceptual information
- communication skills to:
 - check and confirm design requirements
 - collect, interpret and communicate in visual and written forms effectively for various audiences, including engineers and artists
 - communicate clearly using speech and text
 - communicate complex designs in a structured format drawn from industry standards, styles and techniques
 - communicate technical requirements related to software development, graphics requirements and code development to supervisors and other team members
 - provide practical advice, support and feedback to colleagues and management
 - translate design requirements into specifications
- initiative and enterprise skills to exercise a high level of creative ingenuity in 3-D design and innovation
- technical skills to visualise and develop concepts.

Required knowledge

- 3-D animation production protocols
- analysis of a production brief
- development and recording of ideas
- filing media assets
- fundamental research principles
- OHS requirements for:
 - ergonomics
 - electrical safety
- principles of design and colour for use in 3-D animation and digital effects environments
- procedures for producing a storyboard and script
- technical constraints that hardware imposes on graphics requirements and creative visual design.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • interact and navigate with 3-D application interface and toolsets • interact with file management procedures • execute and use 3-D application native support • use 3-D application to user feedback • configure custom panel and window configurations.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • plans to source reference materials • computer hardware, software, games engines and file storage • copyright and intellectual property legislation • OHS legislation and enterprise policy • appropriate learning and assessment support when required • modified equipment for people with special needs.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • review of sample workplace activities • evaluation of written or interactive computer-based fault-finding exercises • evaluation of reports and logbooks.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed.</p> <p>Indigenous people and other people from a non-English speaking background may need additional support.</p> <p>In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.</p>

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>3-D modelling and animation software</i> may include:</p>	<ul style="list-style-type: none"> • 3ds Max • Blender • Cinema 4D • Houdini • Lightwave • Maya • Modo • XSI • ZBrush.
<p><i>3-D navigation types</i> may include:</p>	<ul style="list-style-type: none"> • input procedures • keyboard hotkeys • panning • rotating • zooming.
<p><i>Common toolsets of 3-D animation software</i> may include:</p>	<ul style="list-style-type: none"> • animation • animation curve editors • animation dope sheets • content selection lists • dynamics • modelling • movement • rendering • rotation • scaling • shader or material editors.
<p><i>Menu categories</i> may include:</p>	<ul style="list-style-type: none"> • animate • assets • colour • create • create UVs • display • edit • edit mesh • edit UVs

	<ul style="list-style-type: none"> • file • geometry • help • mesh • modify • normals • proxy • window.
<i>Relevant personnel</i> may include:	<ul style="list-style-type: none"> • animator • dead-environment designer • designer • effects artist • environment designer • lead animator • lead artist • lead audio • lead designer • modeller • producer • texturer • trainer • VFX supervisor.
<i>Reference material</i> may include:	<ul style="list-style-type: none"> • blueprints • developmental drawings • internet research • museum information • orthographic images • photographs • schematics • video footage.
<i>Application support materials</i> may include:	<ul style="list-style-type: none"> • help files • reference material • troubleshooting.
<i>Application file-management procedure types</i> may include:	<ul style="list-style-type: none"> • exporting • importing • opening • saving.

Unit Sector(s)

Game development