



Australian Government

Department of Education, Employment and Workplace Relations

ICAGAM522A Complete digital editing for the 3-D and digital effects environment

Release: 1

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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 complete digital editing for the 3-D and digital effects environment, involving the completion of a digital editing project.

Application of the Unit

This unit applies to concept artists, games 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. Research digital editing techniques and software	1.1 Research industry standard digital editing techniques 1.2 Discuss suitable techniques to apply in various scenarios 1.3 Research available digital <i>editing software</i> used in the industry 1.4 Identify <i>technical limitations and constraints</i> of rendering and editing processes
2. Obtain or create 3-D animation sequence	2.1 Obtain or create a 3-D animation sequence in frames 2.2 Obtain or create a <i>storyboard</i> for the sequence 2.3 Use a suitable naming scheme for the rendered frames and organise the files into a folder structure
3. Apply digital editing techniques	3.1 Edit the rendered frames and any additional graphics into the sequence outlined in the storyboard 3.2 Apply program functions to create and insert graphics, transitions and special effects into the animation 3.3 Implement <i>sounds and music</i> at appropriate frame locations 3.4 Ensure efficient file management is maintained during the editing process
4. Finalise a digitally edited production	4.1 Use editing software to resolve sound or transition errors 4.2 Evaluate final edit 4.3 Present finalised edit to relevant <i>personnel</i> in an appropriate video format 4.4 Receive and incorporate <i>feedback</i>

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 editing techniques
 - 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 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 games design and innovation
- literacy and numeracy skills to:
 - develop games design and technical design documents
 - write instructions for the normal and competent operation and testing of all games features and permutations
- management skills to manage teams in order to effectively extract useful feedback
- planning and organisational skills to:
 - appropriately refer decisions to a higher project authority for review and endorsement
 - delegate tasks and responsibility appropriately
 - establish clear roles and goals to achieve required games development outcomes
 - meet project deadlines
 - organise equipment and resources to achieve required outcomes
 - organise own time to meet milestones
- problem-solving skills to recognise and address potential quality issues and problems at design development stage
- research skills to undertake practical, technical and desktop research into editing for the 3-D environment
- self-management skills to:
 - deliver required tasks without specific guidance
 - prioritise and manage own work against project plan or schedule
- teamwork skills to contribute to and work in a collaborative team
- technical skills to:
 - resolve basic hardware, software and other technical issues associated with video editing and production
 - use correct file formats and archiving procedures.

Required knowledge

- digital editing and rendering processes and techniques
- capabilities and constraints of digital editing and rendering software
- human resources required in the process of creating a games and their respective skills and technology requirements
- OHS requirements for:
 - ergonomics
 - electrical safety
 - materials handling
 - physical hazards, including lifting
- risk and critical path management
- technical constraints that hardware imposes on software development, graphics requirements, code development 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"> • apply a variety of strategies for editing a sequence using a 3-D environment • develop a finalised edit in appropriate video format.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • computer hardware, software, games engines and file storage • internet access for research purposes • 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"> • evaluation of a completed animation production delivered in an accessible format • evaluation of work samples or simulated workplace activities • observation of games document development activities • evaluation of storyboard of sequence frames and design concepts • observation of use of techniques and editing software • evaluation of a verbal or written report on industry standard digital editing techniques and software.
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>

	In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.
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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.

<i>Editing software</i> may include:	<ul style="list-style-type: none"> • Final Cut Pro • Premier • Sony Vegas.
<i>Technical limitations and constraints</i> may include:	<ul style="list-style-type: none"> • current technology • future technology and release date • pixels • platforms • polygon count • software capability.
<i>Storyboard</i> may include:	<ul style="list-style-type: none"> • animatics (technical pre-visualisation) • computer-generated illustrations • existing comic strips, comic books and graphic novels • hand-drawn illustrations • illustrations or images displayed in sequence for the purpose of pre-visualising a motion picture, animation, motion graphic or interactive media sequence, including website interactivity • photomatic (photographic storyboard) • thumbnails.
<i>Sounds and music</i> may include:	<ul style="list-style-type: none"> • ambient sounds • cinematic soundtracks • event jingles • intellectual property protection • level themes • musical compositions • radio chatter • situational music • sound effects • voice • wind, rain and storms.
<i>Personnel</i> may include:	<ul style="list-style-type: none"> • animators • concept artists • game-play designers • graphic designers • instructional designers

	<ul style="list-style-type: none">• modellers• motion capture technicians• other specialist staff• other technical staff• producers• programmers• project manager• sound engineers• team members• technical director• writers.
<i>Feedback</i> may involve:	<ul style="list-style-type: none">• accepting and responding to comment, critique and suggestions from:<ul style="list-style-type: none">• clients• colleagues• target audience representatives.

Unit Sector(s)

Game development