



Australian Government

Department of Education, Employment and Workplace Relations

ICAGAM531A Complete compositing to create elements 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>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to composite photographic, 3-D and digital effects elements.

Application of the Unit

This unit applies to compositors, matte painters, concept artists, modellers, animators, game designers, directors and other personnel working in the film, television and game development industries.

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. Confirm compositing requirements	1.1 Undertake consultation with the client to develop the compositing brief 1.2 Plan and schedule compositing work 1.3 Identify appropriate software tools, equipment and media for compositing work 1.4 Consult with relevant personnel in regard to technical aspects of proposed compositing 1.5 Confirm compositing requirements with client prior to work commencement
2. Prepare elements for compositing	2.1 Select resolution and aspect ratio for final composited output 2.2 Create digitised elements through non-digital means 2.3 Identify and obtain source plates or layers, images and other elements for compositing 2.4 Modify or repair elements that are problematic or inconsistent with desired outcomes 2.5 Undertake colour correction of plates and elements 2.6 Create additional elements where required 2.7 Generate mattes
3. Composite images to achieve an integrated result	3.1 Track and stabilise images to be composited 3.2 Match cameras, lighting and shadows, and add motion blur as required to finalise composite 3.3 Integrate plates, layers or elements in the correct sequence using compositing software 3.4 Incorporate grain where required 3.5 Present test composites to client for approval
4. Render composited images and save files	4.1 Optimise composited images for rendering 4.2 Undertake rendering process using efficient levels of resources 4.3 Store or archive rendered files in the specified output format 4.4 Review completed render to ensure quality and compliance with system requirements and client brief
5. Present composite to client for final approval	5.1 Present final composited images for client approval 5.2 Make adjustments to composited images where required to meet client requirements

Required Skills and Knowledge

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

Required skills

- communication skills to communicate and negotiate effectively with suppliers, colleagues and clients
- planning and organisational skills to:
 - manage time and resources
 - optimise equipment and resources to achieve desired technical outcomes
 - prepare hardware and software resources for compositing
- problem-solving skills to solve technical problems associated with compositing
- safety awareness skills to demonstrate safe and healthy workplace practices
- technical skills to:
 - composite a range of elements using computer software
 - efficiently render composited scenes
 - interpret client compositing briefs
 - use advanced computer graphics software
 - use compositing techniques to develop and realise client vision.

Required knowledge

- 3-D modelling, animation and visual effects development
- aspect ratios for image output
- camera, lighting and shadow matching
- efficient sizes and appropriate formats for composited files
- game development
- post-production scheduling and sequencing
- range of compositing software available
- rendering principles
- safe and healthy workplace practices associated with use of computer applications.

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	Evidence of the ability to: • adhere to design brief requirements • complete compositing tasks to the required level of quality according to the brief • use and refine elements for consistency, best image quality and visual impact • adhere to system requirements related to file size, format and storage for efficient retrieval • apply safe and healthy work methods while undertaking compositing work.
Context of and specific resources for assessment	Assessment must ensure access to: • computer hardware, software, games engines and file storage • compositing and output briefs • elements to be composited • 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	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • case studies • work samples or simulated workplace activities • observation of the learner observing appropriate and safe work practices, and maintaining and organising their work space • verbal questioning or interview to confirm knowledge of compositing processes, and methods used to resolve issues and problems • informal individual presentations demonstrating progress toward resolving issues arising in a composite • written or interactive computer-based test or quiz • fault-finding exercises • reports and logbooks.

Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. 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. Indigenous people and other people from a non-English speaking background may need additional support. 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>Plan and schedule</i> may include:	• booking facilities • checking availability of resources for compositing • discussions with team members and stakeholders • production or pipeline planning • scheduling and balancing a range of compositing activities to meet client time line • undertaking technical and design research.
<i>Software tools</i> may include:	• After Effects • Avid • Blender • Combustion • D2 Nuke • Digital Fusion • Final Cut Pro • Flame • Flint • Fusion • Illustrator • Inferno • Inferno • Lustre • Photoshop • Premier • Renderman • Shake.
<i>Equipment and media</i> may include:	• compositing software • computer workstation • ergonomic furniture • hubs • input device, such as stylist tablet, keyboard and mouse • output device, such as monitor, TV, printer and speakers • render farm • render network distribution software • rendering software

	• switches.
Personnel may include:	• animator • compositor • designer • director • manager • matte painter • modeller • production assistant • programmer • render wrangler • supervisor • systems administrator • technical director • texturer • visual effects designer.
Elements may include:	• background plates • CGI characters or objects • filmed characters • layers • matte paintings • visual effects.
Optimisation of composited images for rendering may involve:	• assessing options with key personnel • deleting any unnecessary geometry and components • optimising and refining for best render performance • organising output • preparing layer or pass control • preparing opacity mattes and alpha channels • preparing renderer attributes • rendering • selection of most appropriate renderers for specific outcomes • testing and diagnosing rendering issues.
Output format may include:	• 35mm • 65mm • Cinemascope • DVD • HDTV • IMAX • NTSC • PAL • Quicktime

	• Super 35.
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Unit Sector(s)

Game development