



Australian Government

Department of Education, Employment and Workplace Relations

CUFANM402A Create digital visual effects

Revision Number: 1

CUFANM402A Create digital visual effects

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to create digital visual effects. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.
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Application of the Unit

Application of the unit	Compositors or effects artists working in 3D animation and graphics studios apply the skills and knowledge described in this unit. They are responsible for creating digital visual effects to simulate physical or natural phenomenon, such as fire, crowds, flocks of birds, fluids, smoke and weather conditions. They receive material from various sources, which could include bluescreen elements, particles, graphics, 2D and 3D animation, and live action footage. Their job is to creatively combine elements into the final image, ensuring that the established style of the project is respected and continuity is maintained. Typically, their briefs are based on elements of storyboards for film, television or digital media productions, including games. A high level of creativity is required, along with proficiency in using a range of industry-current software applications to create and refine digital visual effects. A collaborative approach to work within a production team is essential, as is an ability to meet deadlines.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Clarify work requirements	1. With reference to production documentation, clarify requirements for digital visual effects 2. In consultation with relevant personnel, clarify work flow sequences to ensure that production schedule deadlines are met 3. Select software that best suits the type of production and delivery platform for which visual effects sequences are being created 4. Gather and analyse reference material to help with visualisation of final sequences
Prepare components	5. Gather all assets for integration and check that they are in the correct output file format 6. Choose digital visual effects that best represent the vision of scripts, as required 7. Check that components comply with storyboard requirements 8. Determine the appropriate methods and techniques to be used for the production of the required digital special effects
Assemble previsualisations	9. Create previsualisation of the required visual effects sequences using the appropriate assets and compositing techniques 10. Experiment with previsualisation to establish the best results and solve problems that arise during the process of creating the visual effects 11. Submit previsualisation visual effects sequences to relevant personnel for evaluation and feedback 12. Match elements as required, such as colour, lighting and camera
Produce visual effects	13. Create final visual effects 14. Generate additional required effects to final stage 15. Render visual effects to desired format 16. Submit visual effects sequences to relevant personnel for evaluation and feedback by agreed deadlines
Finalise visual effects	17. Respond to feedback by making adjustments to visual effects so that they comply with design and production specifications 18. Save files to specified storage system accessible to production team

ELEMENT	PERFORMANCE CRITERIA
	19. Make back-up copies of visual effects in accordance with enterprise procedures 20. Complete workplace documentation as required 21. Review process of creating digital visual effects and note areas for future improvement

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication, teamwork and literacy skills sufficient to:
 - interpret and clarify written or verbal instructions
 - interpret storyboards
 - work collaboratively in a team environment, both independently and under direction
 - respond constructively to feedback received from other team members
 - complete workplace documentation
- technical skills sufficient to:
 - use common features of industry-current compositing and visual effects software
 - produce digital visual effects for a range of output formats
 - manage files and directories using standard naming conventions and version control protocols
- initiative and creativity in the context of:
 - visualising and interpreting creative concepts
 - distinguishing subtle differences that affect the matching of elements created in multiple mediums
 - creatively integrating media assets to achieve the required digital visual effects
 - troubleshooting and solving problems as they arise during the process of creating digital visual effects
- self-management, learning and planning skills sufficient to:
 - prioritise work tasks
 - continuously improve skills and knowledge by keeping up to date with industry developments and new software features
 - meet deadlines
 - seek expert assistance as required

Required knowledge

- industry knowledge, including:
 - roles and responsibilities of project team members in the relevant industry sector
 - sound understanding of the relationship between the technical and creative aspects and requirements of productions in which digital visual effects are used
 - issues and challenges that arise in the context of creating digital visual effects sequences

REQUIRED SKILLS AND KNOWLEDGE

- strong understanding of light, colour, composition and mood
- keying process
- technical parameters of various platforms and how these impact on the process of creating digital visual effects
- OHS standards as they relate to working for periods of time on computers

Evidence Guide

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 following is essential:

- creation of a range of digital visual effects sequences that:
 - meet the requirements of a brief
 - demonstrate attention to detail and an ability to refine visual effects to achieve the required creative effects
- collaborative approach to work
- ability to meet deadlines.

Context of and specific resources for assessment

Assessment must ensure:

- access to a selection of industry-current software as listed in the range statement
- access to simulated or real production situations that require the creation of digital visual effects sequences
- access to appropriate learning and assessment support when required
- use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.

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:

- direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance
- evaluation of a range of digital visual effects sequences created by the candidate to determine ability to create different types of effects
- written or verbal questioning to test knowledge as listed in the required skills and knowledge section of this unit.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended,

EVIDENCE GUIDE

for example:

- BSBCRT402A Collaborate in a creative process
- CUFANM403A Create titles for screen productions.

Range Statement

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.

Production documentation may include:

- animatics
- brief
- script
- shot list
- storyboard
- technical specifications.

Requirements may include:

- assets for integration
- collaboration with other team members
- creative expectations
- design specifications
- output format
- technical specifications
- timelines.

Digital visual effects may include:

- colour correction
- compositing:
 - image layering
 - motion graphics
- filters:
 - warp
 - glow
 - blur
 - fog
- integrating lighting across different elements
- keying:
 - chroma
 - luma/luminance
 - difference
- lighting:
 - shadow
 - atmospheric
 - flares

RANGE STATEMENT	
	- particle systems: - bubbles - smoke - droplets - weather effects - dust - atmospheric effects - starbursts - fireworks - textures, e.g.: - water - cloth - fur - tracking: - camera matching - motion tracking.
Relevant personnel may include:	- designer - director - editor - head of department - post-production manager - producer - SFX (special effects) supervisor - storyboard artist - technical director - other technical/specialist personnel.
Software may include:	3D, e.g.: 3D Studio Max - Maya - Soft Image - graphics, e.g.: - Photoshop - Illustrator - video editing, e.g.: - Adobe Premier - Final Cut Pro - Avid Liquid - visual effects/compositing, e.g.:

RANGE STATEMENT	
	• Combustion • Shake • After Effects • Nuke • Digital Fusion.
<i>Productions</i> may include:	• animated productions • commercials • digital media products, e.g.: • simulations • games • e-learning resources • virtual worlds/environments • documentaries • feature films • filmed events or performances • music video • short films • television productions.
<i>Delivery platforms</i> may include:	• broadcast television • CD • DVD • film • internet • kiosk • mobile phone • PDA (personal digital assistant) • other digital devices.
<i>Reference material</i> may include:	• books • direct observation of actions • DVDs ('making ofs') • still images • videos.
<i>Assets</i> may include:	• animated sequences • audio tracks • live action film footage • live action video footage • sequences of stills • static background plates • stills.

RANGE STATEMENT	
<i>Output file format</i> may include:	• AVI • EPS • IFF • JPEG • MPEG • PNG • Quicktime • Targa • TIFF.
<i>Methods and techniques</i> may include:	• 2D graphics and paint • 3D models and animation • compositing.
<i>Compositing techniques</i> may include:	• adding graining • adding motion blur • camera matching • colour matching • combining levels together seamlessly • creating convincing shadows • creating mattes • enhancing the lighting • keying • painting • rotoscoping.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Visual communication - animation and digital effects
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Co-requisite units

Co-requisite units		