



Australian Government

Department of Education, Employment and Workplace Relations

CUSSOU403A Perform advanced sound editing

Revision Number: 2

CUSSOU403A Perform advanced sound editing

Modification History

Release	Comments
Release 2	Created to fix formatting errors only. Released with CUS09 Music Training Package version 1.2

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to perform advanced sound editing. This involves assessing the quality of original recorded sound against production requirements, determining the scope of the sound-editing project, preparing source materials for sound editing, editing sound in line with production requirements, and applying sound effects to enhance the final product.

Application of the Unit

This unit applies to sound editors who edit music and sound effects for film, television, interactive media and music productions as well as to technicians who work in film and sound archives.

This work is undertaken with minimal supervision and guidance. Sound editors at this level could also be responsible for supervising others.

This unit builds on the skills covered in the imported unit:

- CUFSOU204A Perform basic sound editing.

Licensing/Regulatory Information

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

Pre-Requisites

Not applicable

Employability Skills Information

Not applicable

Elements and Performance Criteria Pre-Content

<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>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for sound editing	<p>1.1 Participate in pre-production meetings with relevant personnel to discuss production requirements and procedures</p> <p>1.2 Check that necessary copyright releases have been organised</p> <p>1.3 Consider the impact of different release sound formats when planning editing work</p> <p>1.4 Check sound equipment to ensure it is operational and appropriate for the task</p> <p>1.5 Prepare a team work plan as required and brief relevant personnel accordingly</p> <p>1.6 Obtain original sound sources and assess their quality against production requirements</p> <p>1.7 Check any documentation in the receipt and preparation of original recordings and copies for productions</p> <p>1.8 Advise where sound sources do not meet quality and production requirements and propose options to resolve issues as required</p> <p>1.9 Anticipate problems that may arise during the editing process and plan accordingly</p>
2. Edit complex sound sequences	<p>2.1 Check the format of all sound sources, ensuring it is compatible with editing software, equipment and media output</p> <p>2.2 Critically listen to sound sources to determine the extent and range of required edits</p> <p>2.3 Manipulate editing software and equipment to produce required outcomes and to resolve identified problems</p> <p>2.4 Work sensitively and constructively with relevant personnel to achieve best production outcomes</p>
3. Create overall sound context	<p>3.1 Determine the purpose for which sound is being used in productions</p> <p>3.2 Identify, select and/or produce appropriate sound effects or elements</p> <p>3.3 Apply knowledge and understanding of sonic lexicon to enhance final creative outcomes</p> <p>3.4 Note sound effects and elements on spotting sheets</p> <p>3.5 Incorporate sound effects and elements to meet creative requirements</p>
4. Finalise editing	<p>4.1 Participate in spotting sessions with relevant personnel</p>

ELEMENT	PERFORMANCE CRITERIA
operations	<p>and make adjustments to mix as required</p> <p>4.2 Ensure that final files are in the correct format</p> <p>4.3 Manage the quality check of the final sound mix in line with enterprise procedures and production requirements</p> <p>4.4 Archive edited audio files and complete associated documentation according to enterprise procedures</p> <p>4.5 Ensure that <i>work environment</i> is left clean and ready for the next user</p> <p>4.6 In collaboration with support personnel, organise and maintain sound effects libraries for future productions</p> <p>4.7 Provide feedback to other team members as required</p> <p>4.8 Evaluate own performance against technical and creative criteria and note areas for improvement</p>

Required Skills and Knowledge

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

Required skills

- communication and teamwork skills sufficient to:
 - work collaboratively with project team personnel and sound-production personnel
 - provide feedback to project personnel on appropriate editing techniques
 - provide critical feedback on problems with technical quality of masters and condition of equipment
- literacy skills sufficient to:
 - log and label recorded material
 - accurately note sound effects on spotting sheets
 - read and interpret an edit decision list (EDL)
- numeracy skills sufficient to calculate duration and capacity of media at various speed/sample rates
- initiative and enterprise skills in the context of:
 - finding creative solutions to sound-editing challenges
 - applying critical-listening skills to analyse sound recordings and finding solutions to creative and/or technical problems
- learning skills sufficient to maintain currency of knowledge of editing software and equipment upgrades
- planning and organisational skills sufficient to:
 - prioritise work tasks
 - meet deadlines
 - locate sound effects
- problem-solving skills sufficient to promptly and effectively rectify sound defects, system failures and mechanical breakdowns
- technology skills sufficient to:
 - use a variety of sound-editing equipment and software on both PC and MAC operating systems
 - manage file systems
 - make regular backups

Required knowledge

- principles of sonic storytelling, e.g. using sound (or silence) to:
 - focus attention
 - intensify action
 - set pace
 - set mood
 - evoke feelings

- well-developed understanding of psychoacoustic principles, including:
 - spatial hearing
 - direct sound
 - early sound
 - reverberant sound
 - studio and control room design
 - ergonomics
- well-developed understanding of audio principles, including:
 - frequency
 - pitch
 - amplitude
 - loudness
 - velocity
 - wavelength
 - acoustical phase
 - timbre
 - sound envelope
- intellectual property implications in relation to sound design
- picture and sound synchronisation, including:
 - time codes
 - frame rates
 - sample rates
 - clock leader 2 pips
- principles and techniques of sound editing, including:
 - manipulating sound to achieve technical and creative outcomes
 - using effects to achieve a range of functional sound requirements
 - eliminating audible defects
 - compatibility of different digital standards
 - identification/logging requirements
 - file formats, technical standards and compression
- issues and challenges that typically arise in the context of performing complex sound edits
- OHS principles of:
 - safe listening, including safeguards against hearing loss
 - using a computer and keyboard for periods of time

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"> • use all features of a range of current industry sound-editing software and equipment • make critical editing decisions that enhance the quality and impact of the final sound • incorporate a range of sound effects into the final mix • work cooperatively in a team environment • meet deadlines.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to current industry-standard equipment as listed in the range statement • use of culturally appropriate processes, and techniques appropriate to the language and literacy capacity of learners and the work being performed.
Method of assessment	<p>The following assessment methods are appropriate for this unit:</p> <ul style="list-style-type: none"> • observation of candidate undertaking complex sound edits, including the incorporation of sound effects • direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance by candidate • authenticated recordings of material edited by the candidate • case studies and scenarios as a basis for discussing issues and challenges that arise in the context of complex sound editing.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> • CUSSOU404A Edit dialogues.

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>Relevant personnel</i> may include:	<ul style="list-style-type: none"> • performer • composer • sound supervisor • supervising sound editor • preservation supervisor • archivist • effects editor • effects mixer • sound mixer • recordist • re-recording mixer • audio assistant • audio and sound engineer • director • producer • post-production picture editor • post-production manager • program manager • sound designer.
<i>Production requirements and procedures</i> may include:	<ul style="list-style-type: none"> • creative • technical • file formats • agreement on file naming structures • work flow after capture • prerelease screenings to check quality of sound mix • technical checks • spotting sessions • attributions • audience • budget • confidentiality • content • contractual arrangements

	<ul style="list-style-type: none"> • copyright • deadlines • direct quotes • duration • intellectual property • interviews • location • purpose • schedule • style.
<i>Release sound formats</i> may include:	<ul style="list-style-type: none"> • IMAX multichannel system • 5.1 surround sound: <ul style="list-style-type: none"> • cinema • television • 4-track Dolby stereo • 2-track stereo • internet • games • radio.
<i>Equipment</i> may include:	<ul style="list-style-type: none"> • digital audio workstation (DAW) with software, such as: <ul style="list-style-type: none"> • Pro Tools • Nuendo • Pyramix • Fairlight • Sound Forge • Adobe Audition • Final Cut Pro • Avid • EDL software • mixing consoles • outboard gear, such as: <ul style="list-style-type: none"> • re-verb unit • sub-base harmoniser • de-esser • compressor.
<i>Sound sources</i> may include:	<ul style="list-style-type: none"> • dialogues and voice-overs • special effects • music • walla

	<ul style="list-style-type: none"> • ambient sound • atmospheric sound • foley.
Documentation may include:	<ul style="list-style-type: none"> • pre-mix scripts • mixing sheets • track sheets • de-noising documents • cue sheets • dubbing sheets • queries • notes • manuals.
Production may include:	<ul style="list-style-type: none"> • commercial • print advertisement • corporate video • feature film and/or video • filmed event and/or performance • interactive media product • internet production • electronic game production • music recording and/or video • promotional trailer • radio broadcast • short film and/or video • television program • training film and/or video • oral histories • voice-over.
Format may include:	<ul style="list-style-type: none"> • audio/sound, such as: <ul style="list-style-type: none"> • DAT • AIF (AIFF) • WAV • broadcast WAV format (BWF) • WMA • MIDI • OGG • advanced audio coding (AAC) • Apple Lossless • magnetic tape • Real Audio • QuickTime

	<ul style="list-style-type: none"> • MP3 • computerised data.
Media may include:	<ul style="list-style-type: none"> • radio • video • CD • DVD • DAT • computer hard drive • internet • mobile device • film.
Manipulating editing software may include:	<ul style="list-style-type: none"> • adjusting and normalising audio levels • inserting: <ul style="list-style-type: none"> • transitions • sound effects • music • voice-overs • overlays • manipulating audio clips, such as: <ul style="list-style-type: none"> • cutting • pasting • copying • moving • splitting.
Purpose may include:	<ul style="list-style-type: none"> • breakingÂ theÂ screenÂ plane • definingÂ space • focusingÂ attention • establishingÂ locale • creatingÂ environment • emphasisingÂ action • intensifyingÂ action • depictingÂ identity • settingÂ pace • providingÂ counterpoint • creatingÂ humour • symbolisingÂ meaning • creatingÂ metaphor • unifyingÂ transition • creating silence.
Producing sound effects may	<ul style="list-style-type: none"> • creating and synchronising effects in a post-production studio

involve:	<ul style="list-style-type: none">• recording during shooting• collecting in the field• generating effects electronically.
<i>Sonic lexicon</i> may refer to genres, such as:	<ul style="list-style-type: none">• silent film• natural history• drama productions• animation• comedy• horror.
<i>Work environment</i> may include:	<ul style="list-style-type: none">• dubbing theatre• on location, including interior and exterior• outside broadcast• post-production studio• recording studio• sound stage• cultural institution• archive.

Unit Sector(s)

Media and entertainment production - audio/sound