



Australian Government

Department of Education, Employment and Workplace Relations

ICPMM344C Manipulate and incorporate audio into multimedia presentations

Revision Number: 1

ICPMM344C Manipulate and incorporate audio into multimedia presentations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to edit, combine and incorporate audio into multimedia presentations.
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Application of the Unit

Application of the unit	This unit describes the competency required to edit, combine and incorporate audio into multimedia presentations.
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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
1. Identify and describe formats of digital audio	1.1. The distinguishing features and uses of analogue and digital audio are determined 1.2. Terms describing audio characteristics (amplitude, sound waves, frequency, mono and stereo) are used correctly 1.3. Contemporary digital audio formats and their application in achieving defined outcomes are identified 1.4. Data rates for major digital sources and their relevance to defined outcomes are determined 1.5. Appropriate methods for saving and producing digital audio outputs are determined for a range of sources and destinations 1.6. Sampling techniques and sources for digital audio appropriate to defined outcomes are determined 1.7. Uses of MIDI technology are determined
2. Use digital audio software	2.1. Appropriate digital audio software is assessed and selected for the job 2.2. Programs are used to edit and manipulate audio according to the job brief
3. Edit digital audio	3.1. Single and multiple audio tracks are edited to achieve a defined outcome 3.2. Multiple tracks of digital audio are joined according to job specifications 3.3. Digital effects are employed to modify and integrate digital audio tracks according to job specifications 3.4. Time encoding is applied to single and multiple edited digital audio tracks according to job specifications 3.5. An audio track is inserted into a multimedia production sequence according to job specifications
4. Construct a digital audio track	4.1. Techniques for hooking sounds are identified 4.2. Defects on sound recordings are eliminated and/or treated 4.3. Special effects and mixing techniques are used on an audio track according to job specifications 4.4. Sequencers are used to create digital audio tracks according to job specifications 4.5. MIDI and sound cards are used to create digital audio according to job specifications 4.6. An audio track is produced using appropriate track construction software and hardware 4.7. Audio tracks are saved in the appropriate file formats

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- OHS in relation to operating machinery such as safely switching off machinery before cleaning is started
- collecting, analysing and organising information by identifying digital audio formats
- mathematical ideas and techniques by identifying digital audio formats
- problem-solving skills by employing digital effects and modifying and integrating audio tracks
- use of technology by incorporating audio into multimedia presentations

Required knowledge

- principles of analogue and digital audio
- distinguishing features of analogue and digital audio
- amplitude, sound waves, frequency, mono and stereo
- contemporary digital audio formats
- data rates that apply to selected digital sources
- sampling, sampling techniques and sources for sampling digital audio
- MIDI technology
- contemporary digital audio formats
- distinguishing the features of selected digital audio software
- methods for saving and producing digital audio outputs
- audio frame
- joining multiple tracks of digital audio
- types of digital effects that are used to modify and integrate digital audio tracks
- purpose of time encoding
- storybook design
- principles of editing audio tracks
- sequencers used to create digital audio tracks
- purpose of sound cards
- manuals, safety and other documentation that are relevant to this task and where are they kept and information that is included in these documents

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:

- incorporate audio elements into different multimedia sequences, according to job specifications and the Performance Criteria
- incorporate audio elements into at least TWO different multimedia sequences, according to job specifications and the Performance Criteria. There should also be evidence of:
 - ability to find and use information relevant to the task from a variety of information sources
 - ability to use a range of software suitable for incorporating and manipulating sound
- evidence for assessment may be gathered from assessment of the unit of competency alone or through an integrated assessment activity.

Context of and specific resources for assessment

Assessment must ensure:

- assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment.

Method of assessment

The following assessment method is appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.

Guidance information for assessment

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

- CUFMEM12A Update web pages.

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.

Software may include:

- sound editing software such as:
 - protocols
 - fairlight.

Multimedia productions may include:

- any aspects or sections of film/video production, educational product, game, promotional product, information product, training product, e-commerce and a range of others.

Equipment used may include:

- digital recorders with/without timecode
- analogue recording devices
- multi track recorder
- stereo recorder
- portable mixers
- microphones including lavalier or neck
- shotgun and directional
- special application
- radio
- stereo
- amplifiers
- microphone stands
- microphone accessories
- microphone windscreens
- speakers
- mixing console/desk
- effects rack
- tape machines
- turntables
- CD (compact disc) player
- sequence sampler
- computer DAT (digital audio tape)
- mini disc
- reel to reel tape recorder
- hard disc recorder

RANGE STATEMENT	
	• DVD (digital versatile disc) • sound editing software including: • protools • fairlight • cables and connectors.
Source material may include:	• dialogue, additional dialogue/voice overs, FX (effects), music, atmosphere, Foley.
Audio defects may include:	• hissing • popping • black holes.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Multimedia
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Co-requisite units

Co-requisite units		