



Australian Government

Department of Education, Employment and Workplace Relations

ICPMM344B Manipulate and incorporate audio into multimedia presentations

Release: 1

ICPMM344B Manipulate and incorporate audio into multimedia presentations

Modification History

Not applicable.

Unit Descriptor

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

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

Application of the Unit

This unit describes the competency required to edit, combine and incorporate audio into multimedia presentations.

This unit describes the competency required to edit, combine and incorporate audio into multimedia presentations.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Nil

Nil

Employability Skills Information

This unit contains Employability Skills.

This unit contains Employability Skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Where italicised text is used, further information is detailed in the Required Knowledge and Skills and/or Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements describe the essential outcomes of a unit of competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Where italicised text is used, further information is detailed in the Required Knowledge and Skills and/or Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

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 Knowledge and Skills

The following knowledge must be assessed as part of this unit:

The principles of analogue and digital audio

What are the distinguishing features of analogue and digital audio?

What is meant by amplitude, sound waves, frequency, mono and stereo?

What are some contemporary digital audio formats?

What data rates apply to selected digital sources?

What is meant by sampling, sampling techniques and sources for sampling digital audio?

What is MIDI technology?

Contemporary digital audio formats

What are the distinguishing features of selected digital audio software?

Methods for saving and producing digital audio outputs

What is an audio frame?

How do you join multiple tracks of digital audio?

What types of digital effects are used to modify and integrate digital audio tracks?

What is the purpose of time encoding?

What is a storybook design?

The principles of editing audio tracks

Why are sequencers used to create digital audio tracks?

What are the purposes of sound cards?

Information sources

What manuals, safety and other documentation are relevant to this task and where are they kept?

What information is included in these documents?

What other sources of information are available?

The following skills must be assessed as part of this unit:

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

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Knowledge and Skills, the Range Statement and the Assessment Guidelines for this Training Package.

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

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 by the candidate.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:
CUFMEM12A Update web pages

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. Italicised wording in the Performance Criteria is detailed below.

Software	May include sound editing software such as Protools and Fairlight. Note: these programs are constantly being upgraded and replaced and appropriate up-to-date programs should be selected
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, DVD (digital versatile disc), sound editing software including Protools and 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
Multimedia productions	May include or be included in any aspects or sections of film/video production, educational product, game, promotional product, information product, training

product, e-commerce and a range of others

Unit Sector(s)

Not applicable.

Competency field

Multimedia

Multimedia