

Overview

The aim of this standard is to enable you to demonstrate knowledge and experience of working with stereo analogue tape rather than expect to be employed merely on digital DAW experience only.

‘Qwerty engineers’ will be very limited by mere DAW skill sets. This standard requires an appreciation of the complexities of magnetic recording and acquisition of skills needed to use, maintain, align and edit stereo analogue tape.

These skills and knowledge are then applied to working within a non-linear digital environment, allowing the you to analyse and assess both DAW and analogue tape systems. You will also analyse sound quality and noise reduction.

This standard utilises the multi-tasking skills expected of today’s recording engineers, editing engineers, mastering engineers, mix engineers and programmers.

Good practice and operation:

This standard is about the processes and practical applications involved in using and maintaining analogue tape recorders. Further to this will be the editing of audio in both the analogue and digital environments. This will require you to have access to good quality stereo open reel format tape machines and editing equipment. Facilities and equipment should also be in-place to allow basic maintenance and alignment procedures to be carried out. You should be use many different types of audio source material for the purposes of editing (speech, various music genres, sound effects) and work to a professional brief.

The understanding of the editing process, ear training and decisiveness are practices that are finely honed when using tape, these inherent skills will then allow you to progress rapidly into the area of non-linear tape-less DAW’s which are now standard across the industry (Pro-Tools, SADiE, Pyramix).

Label and title all archived analogue content. (using SPARS system where applicable)

You will be required to implement actions safely and professionally secure and save entire recorded content via WAV, AIFF, (file formats) DVD, DVD RAM, Digital removable HD CADDY, TAPE, DAT, CD, External HD. You must be able to independently edit recorded material to the required specification and save the newly edited work. Backups should be made of all original and edited materials.

You will need to edit a variety of requested sources.

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Carry out tape and tape-less digital editing

Performance criteria

You must be able to:

- P1 perform essential maintenance and alignment procedures for stereo analogue tape machines
- P2 produce stereo analogue tape recordings to professional standards
- P3 produce finished stereo analogue tapes presented to professional standards
- P4 cut-and-splice edit stereo analogue tapes
- P5 make effective editing decisions
- P6 use a digital audio workstation (DAW) to edit stereo audio transferred from analogue tape
- P7 evaluate the strengths and weaknesses of DAW and analogue tape systems
- P8 produce copies of audio on analogue and digital media
- P9 treat digital audio with analogue tape emulation
- P10 implement noise reduction systems on analogue tape
- P11 evaluate the audio qualities of analogue audio
- P12 evaluate the audio qualities of digital audio
- P13 transfer and import basic audio material without any deterioration in the quality
- P14 make basic editing decisions
- P15 carry out specific requested editing instructions
- P16 operate analogue tape systems
- P17 edit stereo using analogue tape and non-linear systems
- P18 analyse sound quality and noise reduction
- P19 reset and tidy all equipment

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Knowledge and understanding

You need to know and understand:

- K1 different types of analogue and digital connectors
- K2 characteristics for mono, stereo, balanced and un balanced
- K3 magnetism and magnetic tape properties
- K4 the development and composition of magnetic tape
- K5 the functions of a stereo analogue tape machine
- K6 the maintenance and alignment procedures for stereo analogue tape machines
- K7 the process of cut-and-splice stereo tape editing
- K8 the use of different types of stereo analogue tape edits
- K9 the process of non-linear stereo editing
- K10 the advantages and disadvantages of DAW and analogue tape systems
- K11 the differences between digital and analogue audio material
- K12 the advantages and disadvantages of professional noise reduction systems
- K13 relevant aspects of health and safety related to your work

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Developed by	Creative & Cultural Skills
Version number	1
Date approved	April 2012
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Validity	Current
Status	Original
Originating organisation	Creative & Cultural Skills
Original URN	CCSMT22
Relevant occupations	Mastering Engineers; Recording Engineers; recording Producers; mix engineers; assistant engineers; programmers; editing engineers; OB/post engineers; tape ops;
Suite	Music Technology
Key words	using MRL tapes; mono, stereo; multitrack; s tape lengths; tracks; tape speed; signal levels; Leader tape; alignment tones; spool labels; tail-out storage; box labels (artiste); studio; track list; timings; format; speed; SPARS archiving; analogue; level differences; frequency response differences; noise; noise modulation; tape compression; transient distortion; digital; quantisation noise; jitter; pitch/speed error; Locating edit points; edit block; splicing; removing mistakes; top & tailing; rearranging; copying; looping; fades; save; splicing tape; cross-fades; delete edit; insert edit; copy edit; re-arranging; compiling; cross-fades; reversal; looping; interviews; tempo and pace; length of audio; Spoken word; BWAV; WAV; AIFF; DVD; DVD RAM; digital removable HD CADDY; TAPE; DAT;CDR; music; sound; music technology;