

ESKIAV3 (SQA Unit Code - F9AJ 04)

Audio and Video Software



Overview

This is the ability to use a software application designed to record and edit audio and video sequences.

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Performance criteria

Use hardware and software to capture audio or video sequences

You must be able to:

- P1. Select and use an appropriate combination of **input device** and audio or video software to optimise the recording of information
- P2. Select and use an appropriate combination of audio or video hardware and software to **originate and develop** new content for sequences
- P3. **Store and retrieve** sequences using appropriate file formats and compression, in line with local guidelines and conventions where available

Use audio or video software tools and techniques to edit sequences

You must be able to:

- P4. Plan how to mark-up and edit **sequences**
- P5. Select and use appropriate audio or video software tools to **mark-up** and **edit** sequences to achieve required effects
- P6. Organise and **combine information** for sequences in line with any copyright constraints, including across different software
- P7. Identify and respond to quality issues and **problems with audio or video** sequences

Play and present audio or video sequences

You must be able to:

- P8. Select and use an appropriate combination of audio or video playback software and **display device** to suit the file format
- P9. Present sequences effectively by exploiting the features and settings of the playback software and display device**

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Knowledge and understanding

You need to know and understand:

Use hardware and software to capture audio or video sequences

- K1. Determine the audio or video content needed for sequences, and when to originate it
- K2. Discuss and explain any [compatibility issues](#) between combinations of input device to and audio or video software
- K3. Analyse and explain the impact [file size](#) and [file format](#) will have, including when to use [information coding and compression](#)

You need to know and understand:

Use audio or video software tools and techniques to edit sequences

- K4. Discuss and determine what footage to add, keep and remove
- K5. Provide guidance on how [copyright constraints](#) affect use of other's and own information
- K6. Evaluate sequences and discuss any [quality issues and problems](#)

You need to know and understand:

Play and present audio or video sequences

- K7. Discuss and explain the [features and constraints](#) of playback software and display devices

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Additional Information

Scope/range

An advanced user can select and use a range of advanced of audio or video software tools and techniques to record and edit complex or non-routine audio or video sequences.

Audio and video software tools and techniques will be defined as 'advanced' because:

1. the software tools and functions used will be complex, and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;
2. the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and
3. the user will take full responsibility for inputting, manipulating and outputting the information.

Examples of context: recording a series of interviews and specially scripted links using a digital Dictaphone then editing to create a short podcast; storyboarding and shooting a short promotional film sequence on location, then editing it to fit into a multimedia business presentation.

Examples of Content

The examples given are indicative of the learning content at each level and are not intended to form a prescriptive list for the purpose of assessment

Use hardware and software to capture audio or video sequences

Audio and video compatibility issues: between built-in codec used by input device, available editing software, file formats, operating systems, plug-ins

Input devices: Webcam, video camera, microphone, Dictaphone, mobile phone; difference between analogue and digital; low and high resolution; ;
Input techniques: Copy and paste, screen grabs/shots, file download (eg connect USB lead, drag and drop)

Originate and develop: Process: Plan (eg storyboard, script, compose), prepare (eg information, equipment), develop, test, refine;
Types of content: audio (eg music, sound effects, voiceovers), visual (eg drama, dance, animation)

File size: Small, medium, large, link between size and quality (eg small – low resolution; large – high resolution)

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File format: Proprietary formats supported by software used (eg QuickTime, RealPlayer, iTunes)

Container formats: Audio (eg WAV, XMF, AIFF); Audio/video (eg 3GP, AVI, MP4, OGG, MOV)

Popularity, overhead, support for advanced functionality and content, support of streaming media

Information coding and compression: Codec, compression, difference between lossy and lossless compression, factors affecting video quality

Store and retrieve: Save, save as, find, open, close

Use audio or video software tools and techniques to edit sequences

Sequence: short (eg 2 mins), b&w, medium length (eg 10 mins, 30 mins), colour

Marking-up and editing tools: Preset by software, key frames, sequences; Cut, copy, paste, sequence

Combine information: Combine images with sound (eg dub or overlay sound track onto film sequence; integrate a audio or video sequence with another application):

Techniques: Copy and paste, insert, screen grabs/shots,

File download (eg connect USB lead, drag and drop), file transfer protocol (FTP)

Forms of information: moving images, sound; pre-recorded, live, web-streaming

Copyright constraints: Effect of copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism, provisions of the Data Protection Act

Quality issues: contrast, volume, visual (eg brightness, colour balance, monochrome), sound (eg treble, bass, balance), remove unwanted objects, noise reduction

Audio and video sequence problems: high or low contrast, volume, visual (eg jerkiness, dropping frames, break-up, freezes, blurriness, pixilation), sound (eg clicks, disjoints, noise)

Play and present audio or video sequences

Features and constraints: Software supported, memory, processing speed, screen resolution, data bandwidth, transmission speeds

Display device: PC, laptop, video camera, Dictaphone, mobile phone, handheld audio or video device (eg mp3 player, iPod)

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[Adjust playback and display settings:](#) Start, stop, fast forward, rewind, pause, volume, contrast, brightness, thumbnail, quarter screen, full screen, screen resolution, colour balance, sound quality

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Validity Current

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Originating organisation e-skills UK SSC

Original URN ESKIAV3

Relevant occupations Application Support; ICT for users; Information and Communication Technology

Suite IT Users 6.2

Key words IT User, ICT, Information Technology, ITQ, Productivity