



Australian Government

Department of Education, Employment and Workplace Relations

CUFBRD403A Transfer film to digital formats

Revision Number: 1

CUFBRD403A Transfer film to digital formats

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to transfer film footage into a format suitable for television transmission.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.</p>
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Application of the Unit

Application of the unit	<p>The skills and knowledge outlined in this unit apply to telecine operators involved predominantly in the transfer of film to digital formats.</p> <p>They require a good knowledge of film gauges and their different properties. They need to be proficient in the use of telecine equipment in all of its current forms and should be familiar with a range of digital formats for recording telecine outputs. In addition, they are required to grade film for colour and transfer film to digital media.</p> <p>Generally, telecine operators work for production houses specialising in film-to-digital transfers, film archive organisations and television stations.</p>
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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
Prepare for transfer and recording	<ol style="list-style-type: none"> 1. Receive and interpret verbal or written instructions to determine transfer requirements for source <i>film</i> 2. Select appropriate <i>telecine equipment and ancillaries</i> to perform transfers of film to required <i>media</i> 3. Clean telecine equipment and film thoroughly prior to commencing transfer operations using appropriate <i>cleaning techniques</i> 4. Handle film with care to avoid damage throughout transfer process using appropriate protective gloves 5. Attach appropriate leaders and spacing and inspect film for obvious physical <i>faults</i>
Transfer and record film	<ol style="list-style-type: none"> 6. Load film onto telecine equipment correctly and ensure <i>destination equipment</i> is aligned for correct <i>aspect ratio and signal</i> 7. Transfer film accurately and correctly to selected recording media, ensuring image and sound are synchronised 8. Ensure that the racking and framing of film images is accurate according to instructions and requirements 9. Ensure that editing is <i>frame</i> accurate according to instructions and requirements 10. Liaise with relevant <i>production personnel</i> about media requirements and compatibility with available equipment 11. Discuss <i>technical issues</i> and perceived transfer problems with relevant production personnel and provide solutions where applicable
Finalise work operations	<ol style="list-style-type: none"> 12. Complete <i>documentation</i> and distribute with recorded media to relevant production personnel according to enterprise procedures 13. Complete fault reports in accordance with enterprise procedures 14. Return source film to the source location, in accordance with enterprise procedures 15. Review and reflect on own performance and note areas for improvement

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication and organisational skills sufficient to:
 - liaise with relevant production personnel, e.g. directors, producers
 - understand and carry out instructions as required
 - prepare relevant documentation and production information
- technical skills sufficient to:
 - digitise pre-recorded content, e.g. film, analogue video
 - convert source material from one file format to another, e.g. NTSC to PAL
 - judge picture-to-sound synchronisation
 - operate telecine equipment, including checking that it is working to specifications
 - undertake basic maintenance of equipment, e.g. cleaning of film and tape paths
- self-management skills sufficient to:
 - prioritise work tasks
 - work calmly under pressure and to tight deadlines
 - make decisions within level of own responsibility
 - seek expert assistance when problems arise
- literacy and numeracy skills sufficient to:
 - interpret instructions and other relevant documentation, e.g. equipment specifications
 - interpret basic calculations, e.g. aspect ratios, frame rates
 - document, log and file source and recorded/edited materials
 - implement and record time codes and copies

Required knowledge

- industry knowledge, including:
 - roles and responsibilities of personnel in broadcast operations and production
 - sound understanding of the characteristics of television standards, e.g. PAL, NTSC, SECAM
 - basic understanding of television broadcast systems and transmission facilities
 - sources of advice, information, and technical support
 - nature, function and limitations of video recording equipment and materials
 - nature and purpose of test signals
 - selection of tape types
 - broadcast terminology

REQUIRED SKILLS AND KNOWLEDGE

- issues and challenges that arise in the context of transferring film to digital formats
- concept and judgement of image and audio broadcast quality
- film library procedures and protocols
- film and tape/disk handling and care methodologies
- compression codecs and encoders
- OHS standards as they apply to working in broadcast operations

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • correct interpretation of production schedules/instructions • efficient operation of telecine equipment • ability to judge picture-to-sound synchronisation • ability to assess colour corrections • collaborative approach to work.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • practical demonstration of skills through the transfer of film to digital formats • access to material to be prepared for broadcast • access to telecine equipment • access to appropriate learning and assessment support when required • 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>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance • evaluation of film material transferred to digital formats by the candidate to determine whether it meets production requirements • written or verbal questioning to test knowledge as listed in the required skills and knowledge section of this unit.
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"> • CUFBRD401A Coordinate television transmission

EVIDENCE GUIDE

	<p>operations</p> <ul style="list-style-type: none">• CUFPOS401A Edit screen content for fast turnaround• CUFPOS403A Colour grade moving images.
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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.

<i>Film</i> may include:	<ul style="list-style-type: none"> • film of any gauge, e.g.: <ul style="list-style-type: none"> • 8 mm • Hi-8 • 16 mm • Super 16 • 35 mm • 70 mm.
<i>Telecine equipment and ancillaries</i> may include:	<ul style="list-style-type: none"> • colour control systems • colour correctors • digital filters • down conversion, e.g. HD • flat-bed scanners • motion trackers • telecine machines, e.g. Cintel.
<i>Media</i> may include:	<ul style="list-style-type: none"> • analogue • digital media, e.g.: <ul style="list-style-type: none"> • DVD • CD • iPod • mini-DV • digital tape • kine film.
<i>Cleaning techniques</i> may be:	<ul style="list-style-type: none"> • hand cleaning • machine cleaning, e.g.: <ul style="list-style-type: none"> • rotating hair brushes • rotating velvet brushes • rotating chamois or cloth buffs • fixed rubber squeegees.
<i>Faults</i> may include:	<ul style="list-style-type: none"> • audio/film out of sync • bad splices • base or emulsion separation

RANGE STATEMENT	
	<ul style="list-style-type: none"> • dirt • equipment failure • fogging • loss of image, focus and colour • oxidation • scratches • sprocket damage • tape damage • warping.
<i>Destination equipment</i> may include:	<ul style="list-style-type: none"> • computer hard drives • DVD, CD recorders • non-linear editing machines, e.g. MAC G5, Avid • servers • videotape machines.
<i>Aspect ratios and signals</i> may include:	<ul style="list-style-type: none"> • ratios, e.g.: <ul style="list-style-type: none"> • 4:3 (1.33:1) • 16:9 (1.78:1) • letterbox • pan and scan • anamorphic prints • signals, e.g.: <ul style="list-style-type: none"> • NTSC • PAL • SECAM.
<i>Frame</i> may include:	<ul style="list-style-type: none"> • frame lines • frame size, e.g. 35 mm = 22mm x 16 mm • frame view on projection • object in frame • single frame.
<i>Production personnel</i> may include:	<ul style="list-style-type: none"> • editors • head of department • laboratory technicians • master control • supervisor • tape library personnel • tape operators • technical director.

RANGE STATEMENT	
<i>Technical issues</i> may include:	<ul style="list-style-type: none"> • colour grade, e.g.: <ul style="list-style-type: none"> • colour balance • colour correction • colour density • colour temperature • effects • primary colour • secondary colour • frame rates, e.g.: <ul style="list-style-type: none"> • 24 fps (film) • 30 fps (sound) • video vs. film variables • resolution down convert • signals • standard definition video • synchronisation.
<i>Documentation</i> may include:	<ul style="list-style-type: none"> • can labels • computer generated • deadline details • desired density of colour • job card/job sheet • job code, title and client details • manually written • mood requirements • production schedule • roll numbers • stock type.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Media and entertainment production - broadcasting
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Co-requisite units

Co-requisite units		