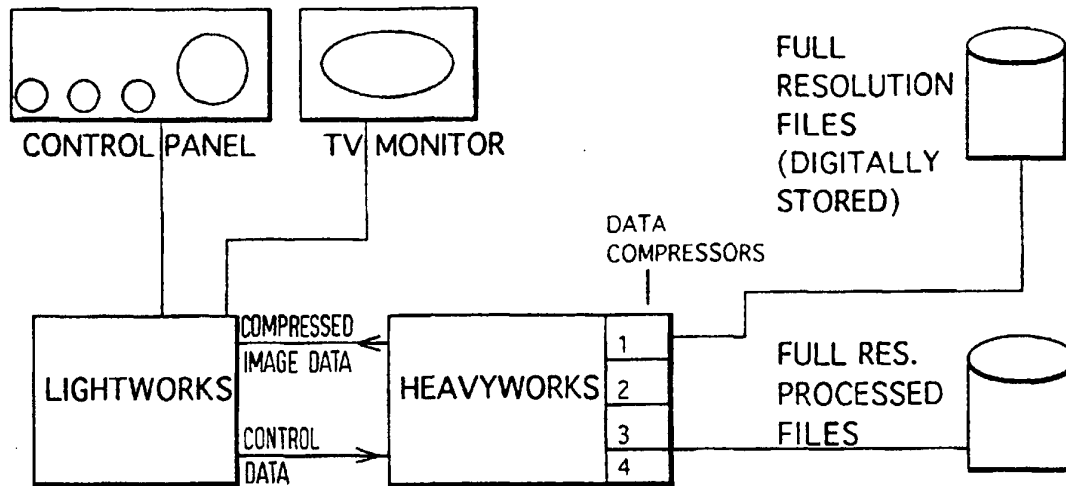




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁵ : G11B 27/031, H04N 5/262, 7/13</p>	<p>A3</p>	<p>(11) International Publication Number: WO 94/29868 (43) International Publication Date: 22 December 1994 (22.12.94)</p>
<p>(21) International Application Number: PCT/GB94/01255 (22) International Filing Date: 10 June 1994 (10.06.94) (30) Priority Data: 9311991.5 10 June 1993 (10.06.93) GB 9320386.7 4 October 1993 (04.10.93) GB (71) Applicant (for all designated States except US): LIGHTWORKS EDITING SYSTEMS LTD [GB/GB]; 31-32 Soho Square, London W1V 6AP (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): BAMBOROUGH, Paul [GB/GB]; 13 Stavordale Road, London N5 (GB). (74) Agent: BUTLER, Michael, John; Frank B. Dehn & Co., Imperial House, 15-19 Kingsway, London WC2B 6UZ (GB).</p>	<p>(81) Designated States: GB, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 16 February 1995 (16.02.95)</p>	

(54) Title: VIDEO EDITING SYSTEMS



(57) Abstract

A system for editing video material comprises: (a) first digital data handling means for receiving and storing a sequence of image frames of relatively high quality; (b) means for converting the sequence of image frames into a corresponding sequence of image frames of relatively low quality; (c) second digital data handling means for receiving and storing the sequence of relatively low quality image frames; (d) operator input means associated with the second data handling means to enable manipulation of the sequence of relatively low quality image frames for edit decisions to be made; (e) communication means connected between the first and second data handling means, for communicating to the first data handling means edit decisions after manipulation of the frames in the second data handling means, substantially as such decisions are made; (f) means within the first data handling means for processing a first edit decision, and for manipulating the relatively high quality image frames accordingly, whilst the operator manipulates the relatively low quality frames in the second data handling means to make a second edit decision for communication to the first data handling means; and (g) means within the first data handling means for producing an output sequence of relatively high quality image frames in accordance with the first, second and any subsequent edit decisions communicated from the second data handling means.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 94/01255

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 5 G11B27/031 H04N5/262 H04N7/13

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 5 G11B H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP,A,0 392 753 (CANON K.K.) 17 October 1990	1-4
X	see the whole document	6,7
A	RESEARCH DISCLOSURE, no.330, October 1991, HAVANT GB page 738, XP000264991 SILVER D.S. 'Dual Quality Recorder' see Article Nr. 33020 see page 738	1,2
A	EP,A,0 526 064 (THE GRASS VALLEY GROUP, INC.) 3 February 1993 see column 4, line 28 - column 13, line 38 see column 19, line 12 - line 15	1,2
A	WO,A,92 07359 (EIDOS PLC.) 30 April 1992 see the whole document	1,2,4,5
	-/--	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

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Date of the actual completion of the international search

17 October 1994

Date of mailing of the international search report

13.01.95

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 94/01255

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO,A,90 07843 (LANG R.A.) 12 July 1990 see page 3, line 33 - page 10, line 32 see page 16, line 16 - page 17, line 1 see page 19, line 5 - line 18 ---	1,2,4,5
A	WO,A,91 10321 (AVID TECHNOLOGY, INC.) 11 July 1991 see the whole document ---	1
A	FERNSEH UND KINO TECHNIK, vol.45, no.5, 1991, BERLIN DE, XP000229093 KRIEG P. 'Multimedia-Computer und die Zukunft des Film/Videoschnitts' pages 252-254, 256 and 258, see the whole document ---	1,2
A	EP,A,0 438 299 (SONY CORPORATION) 24 July 1991 see the whole document -----	1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB94/01255

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. claims 1-5: system for editing video material
2. claim 6: method for generating images of different resolutions
3. claim 7: method for storing data relating to digitised images of different resolutions
4. claims 8,9: method and apparatus for mixing video signals

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5

Remark on Protest

 The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 94/01255

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