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(54) Title: SYSTEM AND METHOD FOR DETECTING HIGHLIGHTS IN A VIDEO PROGRAM USING AUDIO PROPERTIES

(57) Abstract: There is disclosed an apparatus for detecting program highlights in a video program. The apparatus comprises: 1) a keyword detection circuit for detecting a location of a selected keyword in an audio track of the video program; and 2) an audio signal energy level detection circuit for determining an audio signal energy level of the audio track proximate the detected location of the selected keyword and comparing the audio signal energy level to a predetermined threshold. The audio signal energy level detection circuit, in response to a determination that the audio signal energy level exceeds the predetermined threshold, identifies the detected location of the selected keyword as a program highlight.

## INTERNATIONAL SEARCH REPORT

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| <b>A. CLASSIFICATION OF SUBJECT MATTER</b><br>IPC 7 G11B27/10 G11B27/28 G06F17/30   |   |  |   |   |
|---|---|--|---|---|
| According to International Patent Classification (IPC) or to both national classification and IPC   |   |  |   |   |
| <b>B. FIELDS SEARCHED</b><br>Minimum documentation searched (classification system followed by classification symbols)<br>IPC 7 G11B G06F   |   |  |   |   |
| 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)<br>EPO-Internal, WPI Data, PAJ   |   |  |   |   |
| <b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>   |   |  |   |   |
| Category *  | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.  |   |   |
| X   | KANADA T: "IMMERSION INTO VISUAL MEDIA:<br>NEW APPLICATIONS OF IMAGE UNDERSTANDING"<br>IEEE EXPERT, IEEE INC. NEW YORK, US,<br>vol. 1, no. 1,<br>1 February 1996 (1996-02-01), pages 73-80,<br>XP000585056<br>ISSN: 0885-9000<br>page 74, right column "Informedia:<br>integrating speech, language and image<br>understanding" - page 76, right column<br>"Virtualized reality"<br>---   | 1-19   |   |   |
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| <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.   |   |  |   |   |
| ° Special categories of cited documents :<br><table border="0"> <tr> <td>           *A* document defining the general state of the art which is not considered to be of particular relevance<br/>           *E* earlier document but published on or after the international filing date<br/>           *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)<br/>           *O* document referring to an oral disclosure, use, exhibition or other means<br/>           *P* document published prior to the international filing date but later than the priority date claimed         </td> <td>           *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<br/>           *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<br/>           *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.<br/>           *&amp;* document member of the same patent family         </td> </tr> </table> |   |  | *A* document defining the general state of the art which is not considered to be of particular relevance<br>*E* earlier document but published on or after the international filing date<br>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)<br>*O* document referring to an oral disclosure, use, exhibition or other means<br>*P* document published prior to the international filing date but later than the priority date claimed | *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<br>*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<br>*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.<br>*&* document member of the same patent family |
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| Date of the actual completion of the international search<br><br>19 June 2002   |   | Date of mailing of the international search report<br><br>26/06/2002 |   |   |
| Name and mailing address of the ISA<br>European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016  |   | Authorized officer<br><br>Mourik, J                                  |   |   |

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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