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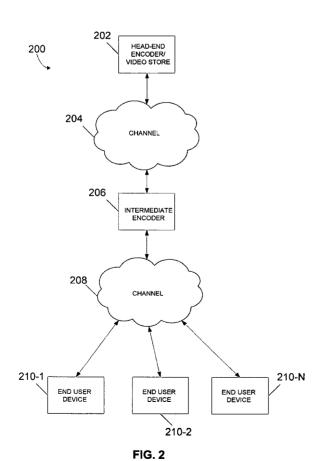
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[Continued on next page]

#### (54) Title: HYBRID SCALABLE CODING



(57) Abstract: Systems, apparatuses and methods whereby coded bitstreams are delivered to downstream end-user devices having various performance capabilities. A head-end encoder/video store generates a primary coded bitstream and metadata for delivery to an intermediate re-encoding system. The re-encoding system recodes the primary coded bitstream to generate secondary coded bitstreams based on coding parameters in the metadata. Each secondary coded bitstream is matched to a conformance point of a downstream end-user device. Coding parameters for each conformance point can be derived from the head-end encoder encoding original source video to generate the secondary coded bitstreams and extracting information from the coding process/results. The metadata can then can be communicated as part of the primary coded bitstream (e.g., as SEI) or can be communicated separately. As a result, the complexity of the secondary coded bitstream is appropriately scaled to match the capabilities of the downstream end-user device to which it is delivered.



## WO 2008/092076 A3



NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N7/24 H04N7 H04N7/26 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) HO4N 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) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. GB 2 387 287 A (SNELL & WILCOX LTD [GB] 1 - 46SNELL & WILCOX LTD [GB]; SNELL & WILCOX LTD [G) 8 October 2003 (2003-10-08) figure 2 page 2, line 26 - page 4, line 30 page 5, lines 2-5 US 2002/157112 A1 (KUHN PETER [JP]) 12, 24 October 2002 (2002-10-24) 14-16, 36,38-40 page 3, paragraphs 48,49 page 5, paragraph 59 - page 9, paragraph page 5, paragraph 59 - page 9, paragraph 139 Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: \*T\* later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "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) involve an inventive step when the document is taken alone 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 docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 8 July 2008 05/08/2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Di Cagno, Gianluca Fax: (+31-70) 340-3016

6

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