

(51) International Patent Classification:
H04N 7/24 (2011.01)

(21) International Application Number:

PCT/US2012/039338

(22) International Filing Date:

24 May 2012 (24.05.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/491,590

31 May 2011 (31.05.2011)

US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

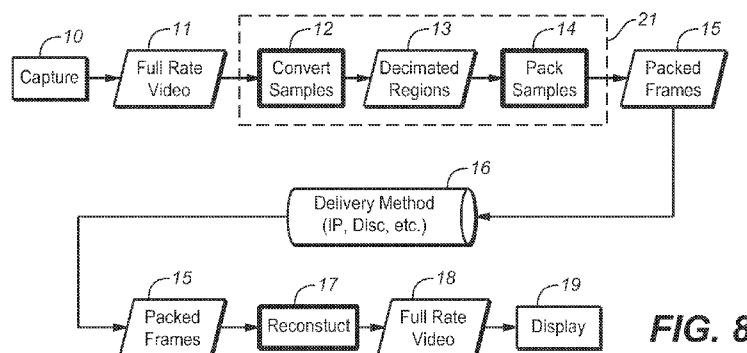
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: VIDEO COMPRESSION IMPLEMENTING RESOLUTION TRADEOFFS AND OPTIMIZATION

**FIG. 8**

(57) **Abstract:** Compression transforming video into a compressed representation (which typically can be delivered at a capped pixel rate compatible with conventional video systems), including by generating spatially blended pixels and temporally blended pixels (e.g., temporally and spatially blended pixels) of the video, and determining a subset of the blended pixels for inclusion in the compressed representation including by assessing quality of reconstructed video determined from candidate sets of the blended pixels. Trade-offs may be made between temporal resolution and spatial resolution of regions of reconstructed video determined by the compressed representation to optimize perceived video quality while reducing the data rate. The compressed data may be packed into frames. A reconstruction method generates video from a compressed representation using metadata indicative of at least one reconstruction parameter for spatial regions of the reconstructed video.

**Published:****(88) Date of publication of the international search report:**

31 January 2013

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/039338**A. CLASSIFICATION OF SUBJECT MATTER****H04N 7/24(2011.01)i**

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)

H04N 7/24; G09G 5/36; G09G 5/14; H04N 7/01; H04N 5/228; G06K 9/40; G06T 13/20; H04N 5/217; G09G 5/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: video compression, spatially, temporally, metadata

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2009-0189912 A1 (HOLTMAN KOEN JOHANNA GUILLAUME) 30 July 2009 See abstract; figure 1; paragraphs [0072]-[0074]; claim 27	1-65
A	US 2011-0001873 A1 (DOSWALD DANIEL et al.) 06 January 2011 See abstract; figures 1, 2; paragraphs [0029]-[0044]; claim 1	1-65
A	US 2011-0090352 A1 (WANG SEN et al.) 21 April 2011 See abstract; figure 2; paragraph [0048]; claim 1	1-65
A	KR 10-2006-0103461 A (INTEL CORP.) 29 September 2006 See abstract; figures 2, 3; paragraphs [0024]-[0032]; claim 1	1-65
A	KR 10-2011-0022544 A (SONY CORP.) 07 March 2011 See abstract; figure 4; paragraphs [0019]-[0024]; claim 1	1-65

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

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"O" document referring to an oral disclosure, use, exhibition or other means

"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

"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

Date of the actual completion of the international search

27 NOVEMBER 2012 (27.11.2012)

Date of mailing of the international search report

03 DECEMBER 2012 (03.12.2012)

Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/039338

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