

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

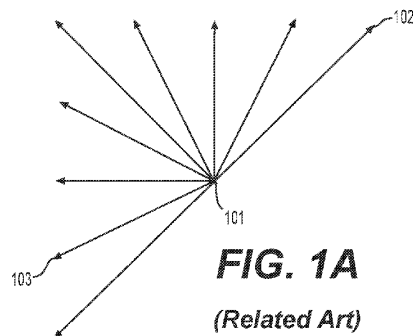
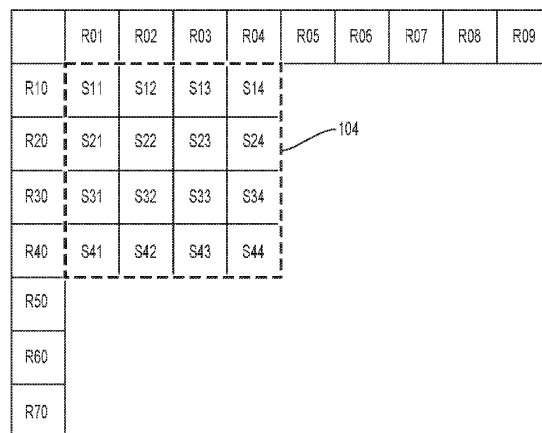
(43) International Publication Date
14 October 2021 (14.10.2021)



(10) International Publication Number
WO 2021/207023 A1

- (51) **International Patent Classification:**
H04N 19/176 (2014.01) *H04N 19/70* (2014.01)
H04N 19/105 (2014.01) *H04N 19/44* (2014.01)
H04N 19/159 (2014.01)
- (21) **International Application Number:**
PCT/US2021/025559
- (22) **International Filing Date:**
02 April 2021 (02.04.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/005,345 05 April 2020 (05.04.2020) US
63/010,272 15 April 2020 (15.04.2020) US
63/024,140 13 May 2020 (13.05.2020) US
63/027,848 20 May 2020 (20.05.2020) US
- (71) **Applicant:** **TENCENT AMERICA LLC** [US/US]; 2747 Park Boulevard, Palo Alto, California 94306 (US).
- (72) **Inventors:** **CHOI, Byeongdoo**; c/o TENCENT AMERICA LLC, 2747 Park Boulevard, Palo Alto, California 94306 (US). **LIU, Shan**; c/o TENCENT AMERICA LLC, 2747 Park Boulevard, Palo Alto, California 94306 (US). **WENGER, Stephan**; c/o TENCENT AMERICA LLC, 2747 Park Boulevard, Palo Alto, California 94306 (US).
- (74) **Agent:** **MA, Johnny** et al.; Oblon, McClelland, Maier & Neustadt, L.L.P., 1940 Duke Street, Alexandria, Virginia 22314 (US).
- (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, BN, BR, BW, BY, BZ,

(54) **Title:** METHOD AND APPARATUS FOR VIDEO CODING



(57) **Abstract:** Aspects of the disclosure provide methods and apparatuses for video encoding/decoding. An apparatus includes processing circuitry that obtains a gate flag for each of at least one constraint information group in constraint information signaled in a coded video bitstream. Each gate flag indicates whether a constraint information group of the at least one constraint information group corresponding to the respective gate flag is present in the constraint information. The constraint information is for a subset of coding blocks in the coded video bitstream. Whether the constraint information group of the gate flag is present in the constraint information is determined based on the gate flag. The constraint information group includes at least one constraint flag for the subset of coding blocks. Prediction information for the subset of coding blocks is determined based on whether the constraint information group of the gate flag is present in the constraint information.

[Continued on next page]

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, ST, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))