



(51) International Patent Classification:

H04N 19/54 (2014.01) H04N 19/597 (2014.01)
G06T 9/00 (2006.01) H04N 19/70 (2014.01)

(21) International Application Number:

PCT/EP2024/075325

(22) International Filing Date:

11 September 2024 (11.09.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

23306552.3 20 September 2023 (20.09.2023) EP

(71) Applicant: **INTERDIGITAL CE PATENT HOLDINGS, SAS** [FR/FR]; 3 rue du Colonel Moll, 75017 Paris (FR).

(72) Inventors: **BHULLAR, Gurdeep**; c/o InterDigital Europe, Ltd., 80 Leadenhall St 4th Floor, LONDON Greater London EC3A 3DH (GB). **MOCQUARD, Olivier**; c/o InterDigital, Immeuble ZEN 2, 845A Avenue des Champs Blancs, 35510 CESSON-SEVIGNE (FR). **MARTIN-COCHER, Gaëlle**; c/o InterDigital Canada, Ltée., 1000 Sherbrooke St, 10th Floor, MONTREAL, Québec H3A 3G4 (CA).

(74) Agent: **INTERDIGITAL**; Immeuble Zen 2, 845A Avenue des Champs Blancs, 35510 CESSON-SEVIGNE (FR).

(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, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MU, NA, RW, SC, 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, ME, 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).

(54) Title: METHODS AND APPARATUS FOR ASSOCIATING ATTRIBUTES AT DIFFERENT LEVELS OF A HIERARCHICAL MESH CODEC

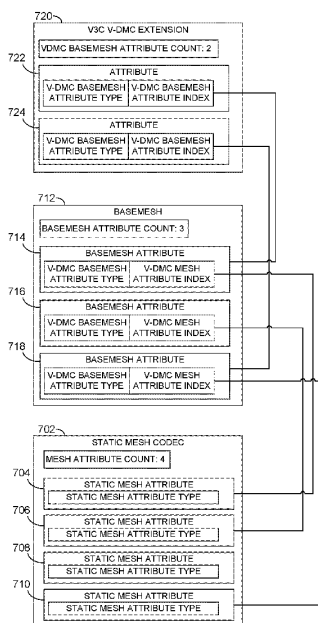


FIG. 7

(57) Abstract: Dynamic mesh encoding and decoding systems and methods. In an example decoding method, an encoded dynamic mesh includes an encoded basemesh, atlas information, and upper-level mapping information that associates a respective lower-level attribute identifier with each of a plurality of upper-level attributes. The encoded basemesh is decoded, where the encoded basemesh includes an encoded static mesh, motion information, and lower-level mapping information. The static mesh includes a plurality of static mesh attributes, and the lower-level mapping information associates a lower-level attribute identifier with each of a plurality of the static mesh attributes. The static mesh is decoded, including decoding static mesh attributes that map to at least one of the upper-level attributes. In some embodiments, static mesh attributes that do not map to any upper-level attribute are not decoded.

Published:

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