



(51) International Patent Classification:
G06F 3/01 (2006.01) *H04N 21/8547* (2011.01)
H04N 21/2343 (2011.01)

(21) International Application Number:
PCT/EP2022/081123

(22) International Filing Date:
08 November 2022 (08.11.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
21306693.9 02 December 2021 (02.12.2021) EP
22305295.2 15 March 2022 (15.03.2022) EP

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

(72) Inventors: **GALVANE, Quentin**; c/o InterDigital R&D France, 975 Avenue des Champs Blancs, 35576 CESSON-SEVIGNE (FR). **DANIEAU, Fabien**; c/o InterDigital R&D

France, 975 Avenue des Champs Blancs, 35576 CESSON-SEVIGNE (FR). **GUILLOTTEL, Philippe**; c/o InterDigital R&D France, 975 Avenue des Champs Blancs, 35576 CESSON-SEVIGNE (FR).

(74) Agent: **INTERDIGITAL**; 975, avenue des Champs Blancs, 35576 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, 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,

(54) Title: TIMELINE BASED REPRESENTATION FOR HAPTIC SIGNAL

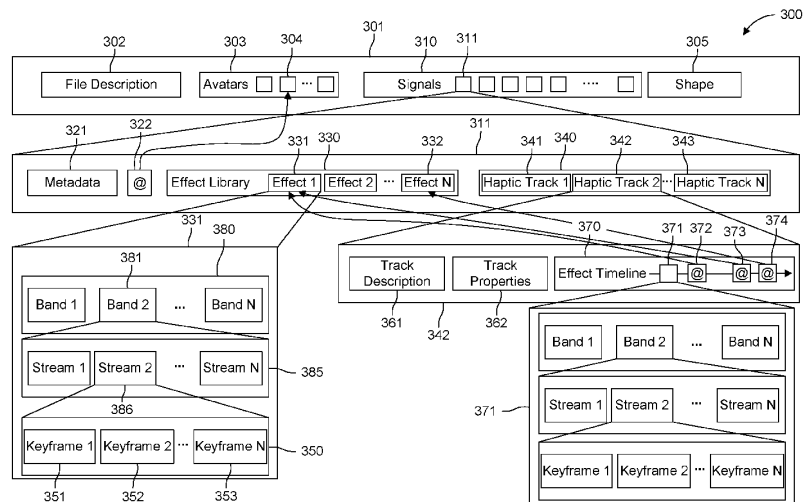


Figure 3

(57) Abstract: A data structure storing information representative of haptic effects comprises a set of haptic effects and a timeline. Haptic effects may be defined in a flexible manner, either directly within the timeline or referenced by an identifier within the timeline. A library may store definitions of the effects with associated identifiers. Data restructuring processes are proposed to convert from a streaming-friendly format where the library is not used to an edition friendly format with the use of a library, and vice versa.

[Continued on next page]

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, 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).

Published:

- *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))*