

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 December 2004 (02.12.2004)

PCT

(10) International Publication Number
WO 2004/105250 A2

(51) International Patent Classification⁷: **H03M**
(21) International Application Number:
PCT/US2004/009866
(22) International Filing Date: 30 March 2004 (30.03.2004)
(25) Filing Language: English
(26) Publication Language: English

(30) Priority Data:
60/470,712 15 May 2003 (15.05.2003) US

(71) Applicant (for all designated States except US): **THOMSON LICENSING S.A.** [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOMILA, Cristina** [ES/US]; 25C Chestnut Court, Princeton, NJ 08540 (US). **KOBILANSKY, Alexander** [US/US]; 17 Seneca Road, Ossining, NY 10562 (US).

(74) Agents: **TRIPOLI, Joseph, S.** et al.; Thomson Licensing Inc., Two Independence Way, Suite #200, Princeton, NJ 08540 (US).

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

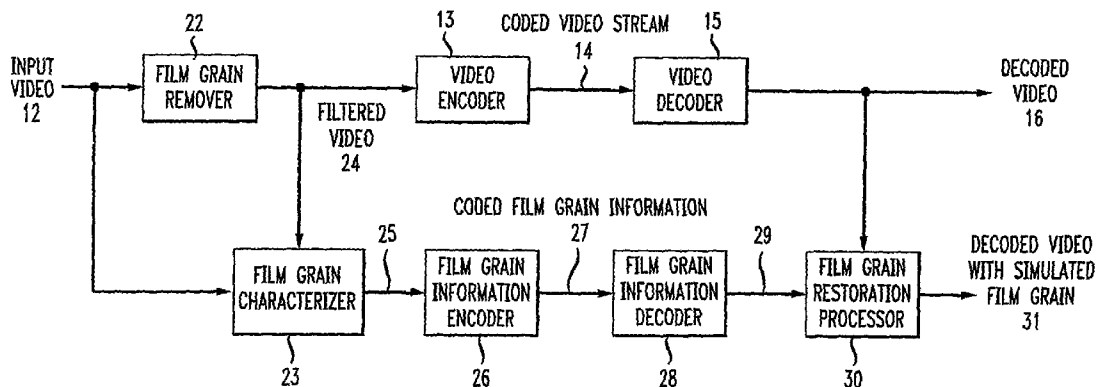
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR REPRESENTING IMAGE GRANULARITY BY ONE OR MORE PARAMETERS



(57) Abstract: To simulate film grain in a compressed video signal, a decoder (15, 28) receives a message containing information that contains a set of one or more parameters, each specifying certain attribute associated with the film grain. For example, one of the parameters will specify the model used to simulate the film grain, whereas other parameters each specify a particular factor associated with that model. Upon receipt of the message, the decoder selects the model, and simulates the film grain for addition to the video signal following decompression.

WO 2004/105250 A2