

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 September 2007 (07.09.2007)

PCT

(10) International Publication Number
WO 2007/100963 A3

(51) International Patent Classification:
G06F 15/16 (2006.01)

(74) Agent: **STEWART, Steven, W.**; Digimarc Corporation,
9405 SW Gemini Drive, Beaverton, OR 97008 (US).

(21) International Application Number:
PCT/US2007/061693

(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date:
16 February 2007 (16.02.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/362,430 24 February 2006 (24.02.2006) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, 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, IS, IT, LT, LU, LV, 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).

(71) Applicant (*for all designated States except US*): **DIGIMARC CORPORATION** [US/US]; 9405 SW Gemini Drive, Beaverton, OR 97008 (US).

(72) Inventors; and

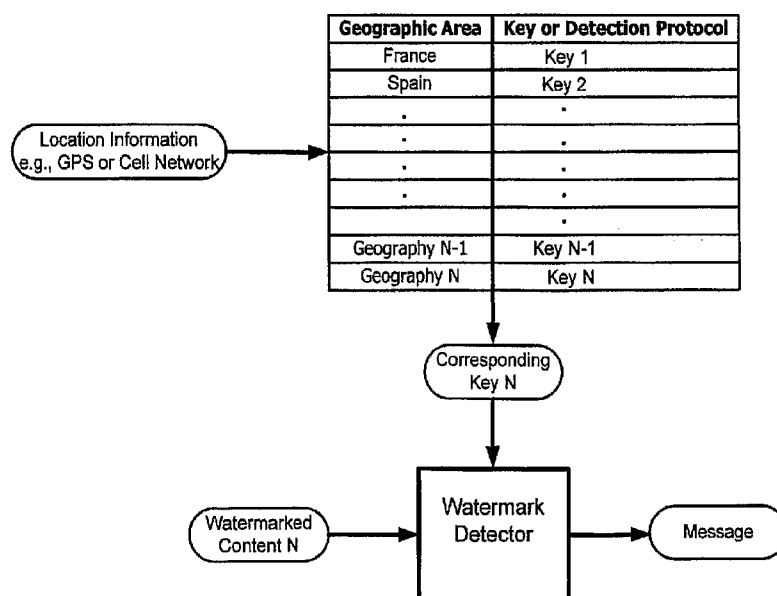
(75) Inventors/Applicants (*for US only*): **ANDREWS, Hoyet, Harrison, III** [US/US]; 1202 Fontaine Drive, San Antonio, TX 78219 (US). **ROSOVE, Stuart, Filip** [US/US]; 17704 Treetop Lane, Lake Oswego, OR 97034 (US). **RODRIGUEZ, Tony, F.** [US/US]; 4436 SW Eleanor Lane, Portland, OR 97221 (US).

Published:

— with international search report

(88) Date of publication of the international search report:
15 May 2008

(54) Title: GEOGRAPHIC-BASED WATERMARKING KEYS



(57) Abstract: The present invention relates generally to digital watermarking and steganography. In one implementation, a method includes determining a current geographic area of the cell phone; selecting a first digital watermark detector that is associated with the current geographic area, a selected first digital watermark detector being selected from a plurality of different digital watermark detectors; and controlling the cell phone to employ the selected first digital watermark detector to analyze a signal to obtain a digital watermark message there from, wherein the selected first digital watermark detector corresponds to a particular digital watermark embedder that is uniquely assigned to the geographic area.

WO 2007/100963 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/61693

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 15/16 (2007.10)

USPC - 726/10

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)

USPC - 726/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 726/2, 3, 27; 713/150, 171, 176; 455/403, 440, 456.1

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

PubWEST (USPT, PGPB, EPAB, JPAB); DialogPRO (Engineering); Google Scholar

Search Terms: phone, watermark, geographic, key, gps, decrypt, unique, orientation, analysis, 2D, barcode etc.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X - Y	US 2005/0169499 A1 (RODRIGUEZ et al.) 04 August 2005 (04.08.2005); entire document, para [0004], [0013], [0016], [0038], [0055], [0063], [0065], [0067], [0085], [0087], [0089], [0140], [0146], [0150], [0166]-[0169], [0182]	1-23, 26 and 33-36 ----- 24-25 and 27-32
Y	US 2005/0213790 A1 (RHOADS et al.) 29 September 2005 (29.09.2005); entire document, para [0423], [0427]	24-25 and 27-32
A	US 2005/0226461 A1 (GOLDBERG et al.) 13 October 2005 (13.10.2005)	1-36
A	US 2004/0258274 A1 (BRUNDAGE et al.) 23 December 2004 (23.12.2004)	1-36

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"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

09 October 2007 (09.10.2007)

Date of mailing of the international search report

15 FEB 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774