

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 March 2009 (05.03.2009)

PCT

(10) International Publication Number
WO 2009/027839 A3

(51) International Patent Classification:
G06Q 10/00 (2006.01)

(21) International Application Number:
PCT/IB2008/003068

(22) International Filing Date: 29 August 2008 (29.08.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/849,165 31 August 2007 (31.08.2007) US

(71) Applicant (for all designated States except US): ACCENTURE GLOBAL SERVICES GMBH [CWCH]; Herrenacker 15, 8200 Schaffhausen (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): OPALACH, Agata [PL/FR]; 43 route de Cannes, F-06650 Opio (FR). FANO, Andrew [US/US]; 6 Plymouth Court, Lincolnshire, IL 60069 (US). LINAKER, Fredrik [SE/FR]; Le Floreal, 17, Avenue Guillaibert, F-06600 Antibes (FR). GROENEVELT, Robert, Bernard (Robin) [NL/FR]; 505 Chemin de Rabiac Estagnol, Residence Los Roses d'Or, apt B31, F-06600 Antibes (FR).

(74) Agent: FENNELL, Gareth, Charles; Kilburn & Strode, 20 Red Lion Street, London WC1R 4PJ (GB).

(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, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, LY, MA, MD, ME, 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, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

(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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, 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:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
14 May 2009

(54) Title: PLANOGRAM EXTRACTION BASED ON IMAGE PROCESSING

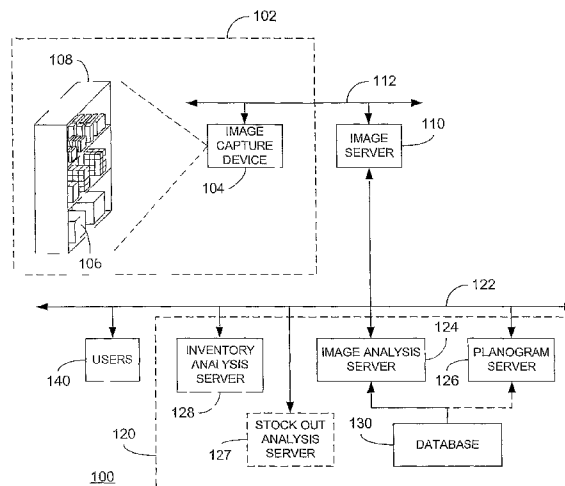


FIG. 1

(57) Abstract: Image analysis techniques, including object recognition analysis, are applied to images obtained by one or more image capture devices deployed within inventory environments. The object recognition analysis provides object recognition data (that may include one or more recognized product instances) based on stored product (training) images. In turn, a variety of functionalities may be enabled based on the object recognition data. For example, a planogram may be extracted and compared to a target planogram, or at least one product display parameter for a product can be determined and used to assess presence of the product within the inventory environment, or to determine compliance of display of the product with a promotional objective. In yet another embodiment, comparisons may be made within a single image or between multiple images over time to detect potential conditions requiring response. In this manner, efficiency and effectiveness of many previously manually-implemented tasks may be improved.

WO 2009/027839 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/003068

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06Q10/00

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)
G06Q G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 2007/179921 A1 (ZITNICK CHARLES L [US] ET AL ZITNICK CHARLES L [US] ET AL) 2 August 2007 (2007-08-02) cited in the application abstract	1-19
X	US 6 711 293 B1 (LOWE DAVID G [CA]) 23 March 2004 (2004-03-23) cited in the application abstract	1-19

D Further documents are listed in the continuation of Box C

See patent family annex

* 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 document but published on or after the international filing date

¹L" 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.

¹T" 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

¹X" 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

24 March 2009

Date of mailing of the international search report

01/04/2009

Name and mailing address of the ISA/

European Patent Office, P B 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040,
Fax (+31-70) 340-3016

Authorized officer

Beatty, John

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2008/003068

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2007179921	A1	NONE	
US 6711293	B1	NONE	