



(51) International Patent Classification:
G06K 9/60 (2006.01)

(21) International Application Number:
PCT/US2012/032682

(22) International Filing Date:
9 April 2012 (09.04.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/516,821 8 April 2011 (08.04.2011) US

(71) Applicant (for all designated States except US): **AC-CUSENTRY, INC.** [US/US]; 605 Franklin Rd. Se, Marietta, GA 30067 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TAN, Wei-song** [US/US]; 3623 Robinson Walk Dr., Marietta, GA 30068 (US). **KOSEN, David** [US/US]; 4530 Ashworth Glen Ct., Marietta, GA 30027 (US). **NEWTON, Thomas R.** [US/US]; 2792 Dover Rd., Atlanta, GA 30027 (US). **WACHTEL, Steven R.** [US/US]; 2042 Kramer Way, Marietta, GA 30062 (US). **DAZA, Agustin** [US/US]; 165 Farm Track, Roswell, GA 30075 (US).

(74) Agent: **PITTS, Robert W.**; 101b Westgate Circle, Winston-salem, NC 27106 (US).

(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, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

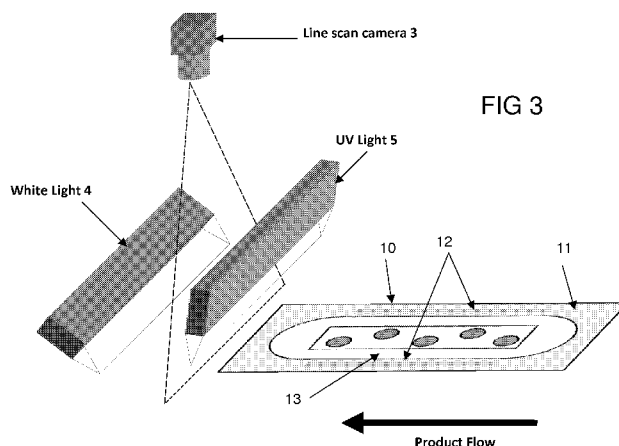
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, 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))

(88) Date of publication of the international search report:
22 November 2012

(54) Title: SYSTEM AND METHOD FOR GENERATING MULTIPLE, INTERLACED IMAGES USING A SINGLE SCANNING CAMERA WITH MULTIPLE, ALTERNATING LIGHT SOURCES



(57) Abstract: A system and method for generating multiple, interlaced images using one scanning camera with multiple, alternately strobed light sources. The system is comprised of a CCD line scanning camera, two or more strobed light sources, an image processing computer, and electronic circuitry facilitating the synchronization of the CCD line scanning camera and the light sources. As the object of interest is imaged by the line scanning camera, the light sources are individually and sequentially strobed as each line is exposed. The resulting electronic image will contain interlaced lines, with each line illuminated by only one of the light sources. The resulting image will then be de-interlaced by the image processing computer to produce multiple, separate images concordant with the number of light sources, with each image illuminated by a single light source.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 12/32682

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06K 9/60 (2012.01)

USPC - 382/141

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: 382/141

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 382/103, 108, 141, 152
348/92, 96, 135, 139, 142

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(PGPB, USPT, EPAB, JPAB); Google Scholar; Google Patents
Search Terms Used: product inspection machine vision line scan camera invisible non-visible infrared UV area sequence sync
synchronization machine vision deinterlaced de interlaced interlace light source imaging web assembly

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,327,374 B1 (PIIRONEN et al.) 04 December 2001 (04.12.2001), col 3, ln 16-39, col 4, ln 10-30, 45-59, col 5, ln 34-53, Fig. 1	1-22
Y	US 2004/0061850 A1 (FISCH et al.) 01 April 2004 (01.04.2004), para [0036]	1-22
Y	US 2009/0185182 A1 (KIM et al.) 23 July 2009 (23.07.2009), Abstract, para [0036]	3, 5, 17
Y	US 2006/0001880 A1 (STOBER) 05 January 2006 (05.01.2006), para [0015]	4, 20

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

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Date of the actual completion of the international search

24 August 2012 (24.08.2012)

Date of mailing of the international search report

21 SEP 2012

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