(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 December 2005 (01.12.2005)

PCT

(10) International Publication Number
WO 2005/114385 A1

(51) International Patent Classification[7]: G06F 7/00

(21) International Application Number:
PCT/US2005/018336

(22) International Filing Date: 20 May 2005 (20.05.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/850,935 21 May 2004 (21.05.2004) US

(71) Applicant *(for all designated States except US)*: **PACECO CORP** [US/US]; 3854 Bay Center Place, Hayward, California 94545 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KING, Henry S** [GB/US]; 3854 Bay Center Place, Hayward, California 94545 (US). **TAKEHARA, Toru** [JP/US]; 3854 Bay Center Place, Hayward, California 94545 (US).

(74) Agents: **SMITH, Gregory Scott** et al.; GSS Law Group, 3900 Newpark Mall Rd., Suite 317, Newark, CA 94560 (US).

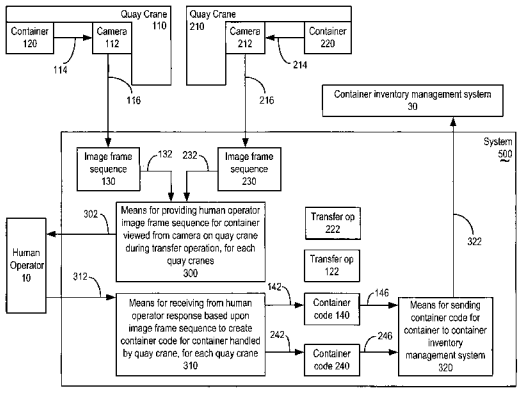
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, 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, 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:
— *with international search 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 SUPPORTING CONTAINER IDENTIFICATION FOR MULTIPLE QUAY CRANES



(57) Abstract: Aspects of the invention include a container code recognition system and method for each of at least two quay cranes. At least one image frame sequence for a container viewed by a camera, on each of the quay cranes, is provided to a human operator. The human operator responds to the image frame sequence for the container. Receiving the human response creates a container code for the container handled by each quay crane. The human response may be through use of a keyboard, pointing device, acoustic interface, and/or eye movement. The invention further includes at least one image frame of the image frame sequence, as well as, the container code for the container as products of the invention's process. Further, the process products may include an identification of the quay crane and/or a time-stamp. The time-stamp may either be when the quay crane transfer occurs and/or when the human operator responds. A container inventory management system may receive one or more of the invention's process products, which may be used to update the system. Archival items generated by the invention's process include the container code, the image frame, further preferably include the quay crane identification and at least one time-stamp.

WO 2005/114385 A1