(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 5 July 2007 (05.07.2007)

PCT

(10) International Publication Number WO 2007/075519 A3

(51) International Patent Classification: *G06K 7/10* (2006.01)

(21) International Application Number:

PCT/US2006/048148

(22) International Filing Date:

18 December 2006 (18.12.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

11/305,895 16 December 2005 (16.12.2005) US 11/408,268 20 April 2006 (20.04.2006) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US 11/408,268 (CIP) Filed on 20 April 2006 (20.04.2006)

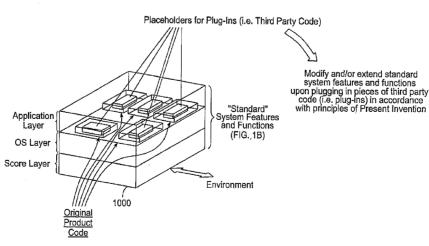
(71) Applicant (for all designated States except US): METRO-LOGIC INSTRUMENTS, INC. [US/US]; 90 Coles Road, Blackwood, NJ 08012 (US).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KOTLARSKY, Anatoly [US/US]; 3505 Freemans Lane, Holland, PA 18966 (US). ZHU, Xiaoxun [CN/US]; 669 Barton Run Blvd., Marlton, NJ 08094 (US).
- (74) Agent: PERKOWSKI, Thomas, J.; THOMAS J. PERKOWSKI, ESQ., P.C., 1266 East Main Street, Stamford, CT 06902 (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, 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 (patent), 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,

[Continued on next page]

(54) Title: DIGITAL IMAGE CAPTURE AND PROCESSING SYSTEM PERMITTING MODIFICATION AND/OR EXTENSION OF SYSTEM FEATURES AND FUNCTIONS

<u>Digital Image Capture and Processing System</u> <u>of Present Invention</u>



(57) Abstract: A digital image capture and processing system, and software development environment, that supports manufacturer-constrained system behavior modification and/or extension by end-users and third-parties through the development and installation/deployment of plug-in modules within the application layer of the system by persons other than the original system designers. By virtue of the present invention, the standard features and functionalities of such systems can now be flexibly modified and/or extended by end-users and third-parties (e.g. VARs, OEMs etc), and thus satisfy customized end-user application requirements, without possessing or acquiring detailed knowledge about the hard-ware platform of the system, its communication interfaces with the outside environment, and user-related interfaces.



/075519 A3

WO 2007/075519 A3



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).

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.

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: 10 January 2008

INTERNATIONAL SEARCH REPORT

International application No. PCT/US 06/48148

CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06K 7/10 (2007.01) USPC - 235/472.01

According to International Patent Classification (IPC) or to both national classification and IPC

FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): G06K 7/10 (2007.01)

USPC: 235/472.01

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

USPC: 235/435; 235/462.45

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST (USPT, PGPB, EPAB, JPAB); Wiley Interscience; CrossRef; Google; Google Scholar Search Terms: scanner reader bar code laser camera optical image plug-in place holder updating version software lidar velocity distance indicator light color sound pitch fruits vegetables produce DHCP

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0218231 A1 (MASSIEU) 06 October 2005 (06.10.2005) entire document, especially para [0007]-[0008], [0013], [0014], [0016], [0017], [0037]-[0041], [0043], [0048], [0051], [0052], [0065], [0080], [0082], [0084], [0085], [0096], [0103], [0124]-[0125]	1-101
Υ	US 2004/0177361 A1 (BERNHARD et al.) 09 September 2004 (09.09.2004) entire document, especially para [0014], [0017], [0023], [0027], [0043]	1-101
Υ	US 2005/0246718 A1 (ERLINGSSON et al.) 03 November 2005 (03.11.2005) entire document, especially para [0028]	1-101
Y	US 2005/0167504 A1 (MEIER et al.) 04 August 2005 (04.08.2005) entire document, especially para [0032], [0035], [0036], [0041], [0072], [0075], [0088], [0135]	2, 8-15, 25, 27, 32, 35, 50 -76, 82-87, 91-97
Υ	US 5,221,956 A (PATTERSON et al.) 22 June 1993 (22.06.1993) entire document, especially col 2, ln 16-25	46, 47
Y	US 5,233,415 A (FRENCH et al.) 03 August 1993 (03.08.1993) entire document, especially col 3, In 1-14	48, 49
Υ	US 6,005,959 A (MOHAN et al.) 21 December 1999 (21.12.1999) entire document, especially col 4, 24-38; col 5, ln 60?col 6, ln 21	66
Y	US 5,825,010 A (CHARYCH et al.) 20 October 1998 (20.10.1998) entire document, especially col 4, ln 25-43, ln 55-61	68

\boxtimes	Further documents are listed in the continuation of Box C.	L		
* "A"	Special categories of cited documents: document defining the general state of the art which is not considered	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand	
	to be of particular relevance		the principle or theory underlying the invention	
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive	
"L"	document which may throw doubts on priority claim(s) or which is		step when the document is taken alone	
	cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is	
"O"	document referring to an oral disclosure, use, exhibition or other means		combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"P"	document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family	
Date of the actual completion of the international search		Date of mailing of the international search report		
19 September 2007 (19.09.2007)			07 NOV 2007	
Name and mailing address of the ISA/US		Authorized officer:		
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450		Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774		
Facsimile No. 571-273-3201				

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 06/48148

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
(SYMBOL TECHNOLOGIES, INC. RS 1 Ring Scanner [online], presented September 2000 [retrieved on 2007-09-18]. Retrieved from the Internet: <url: assets="" files="" http:="" rs-1_900.pdf="" www.symbol.com="">, pg 1, para 2</url:>	69	
(THOMAS PUBLISHING COMPANY. MagTek's MICRImage Transmits Check Images at Speed of Ethernet. ThomasNet Industrial Newsroom: Archive Press Release [online], presented 14 February 2002 (14.02.2002) [retrieved on 2007-09-18]. Retrieved from the Internet: <url: 473="" 7108="" fullstory="" http:="" news.thomasnet.com="">, pg 1, para 3</url:>	74	
,	US 2005/0274801 A1 (HARDING et al.) 15 December 2005 (15.12.2005) entire document, especially para [0079]	75	
		,	
(