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

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 25 November 2010 (25.11.2010)

(10) International Publication Number WO 2010/135127 A3

- (51) International Patent Classification: *G09G 5/00* (2006.01)
- (21) International Application Number:

PCT/US2010/034652

(22) International Filing Date:

13 May 2010 (13.05.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/180,400 21 May 2009 (21.05.2009) US 12/574,846 7 October 2009 (07.10.2009) US 12/574,838 7 October 2009 (07.10.2009) US

- (71) Applicant (for all designated States except US): SONY COMPUTER ENTERTAINMENT INC. [JP/JP]; 2-6-21 Minami-aoyama, Minato-ku, Tokyo 107-0062 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): NICHOLSON, Charles [US/US]; 919 East Hillsdale Blvd, Foster City, California 94404 (US). ZALEWSKI, Gary M. [US/US]; 919 East Hillsdale Blvd, Foster City, California 94404 (US).
- (74) Agent: ISENBERG, Joshua D.; JDI PATENT, 809 Corporate Way, Fremont, California 94539 (US).

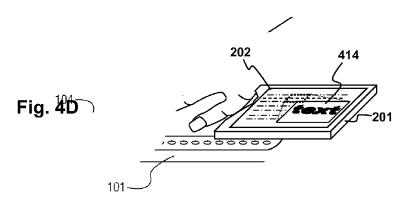
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, RO, RS, RU, 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, 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, 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:

11 August 2011

(54) Title: HAND-HELD DEVICE WITH ANCILLARY TOUCH ACTIVATED ZOOM OR TRANSFORMATION OF ACTIVE ELEMENT



(57) Abstract: A hand-held electronic device, method of operation and computer readable medium are disclosed. The device may include a case having one or more major surfaces. A touch interface (or visual display and touch pad) are disposed on at least one surface. A processor is operably coupled to the display and touch pad. Processor-executable instructions may be configured to: a) present an image on the display; b) identify an active portion of the touch pad in response to a user interaction with the touch pad; c) correlate the active portion of touch pad to a corresponding region of the display; and d) present a magnified view of the corresponding region on the display. Instructions may alternatively be configured to: a) present an image; b) correlate active portions of a touch interface to active elements; and c) present transformed active elements in response to user interaction.





INTERNATIONAL SEARCH REPORT

International application No. PCT/US 10/34652

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G09G 5/00 (2010.01) USPC - 345/661 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: 345/661			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 345/169, 173, 179, 661; 715/273, 788, 815, 864 (keyword limited - see terms below)			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST (PGPB, USPT, USOC, EPAB, JPAB); GoogleScholar Search Terms: display, zoom, touch, tactile, magnify, view, region, stylus, finger, touch screen, touch display, command, interface, image, active element, active icon, tessellation, convex, Voronoi, decomposition			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
Y	US 2007/0188473 A1 (Anwar) 16 August 2007 (16.08 entire document, especially; abstract, para. [0002], [00		1 - 77
Υ	US 2005/0138575 A1 (Hashimoto et al.) 23 June 2009 entire document, especially; abstract, para. [0036], [00	5 (23.06.2005), 038], Fig. 1	1 - 77
	•		
Furthe	r 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 "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			
 "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 		"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	
"O" document referring to an oral disclosure, use, exhibition or other means		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	
"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 10 June 2010 (10.06.2010)		Date of mailing of the international search report 24 JUN 2010	
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	
Facsimile No	D. 571-273-3201	PCT Nelpulsik: 571-272-4300 PCT OSP: 571-272-7774	