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

(19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2012/044539 A3

(43) International Publication Date 5 April 2012 (05.04.2012)

(51) International Patent Classification: G06F 9/22 (2006.01) G06F 13/14 (2006.01)

(21) International Application Number:

PCT/US2011/052988

(22) International Filing Date:

23 September 2011 (23.09.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/389,117	1 October 2010 (01.10.2010)	US
61/507,199	13 July 2011 (13.07.2011)	US
61/507,201	13 July 2011 (13.07.2011)	US
61/507,203	13 July 2011 (13.07.2011)	US
61/507,206	13 July 2011 (13.07.2011)	US
61/507,209	13 July 2011 (13.07.2011)	US
13/217,108	24 August 2011 (24.08.2011)	US
,	·	

(71) Applicant (for all designated States except US): IMERJ, LLC [US/US]; 305 Interlocken Parkway, Broomfield, Colorado 80021 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): REEVES, Brian [CA/CA]; 73 Aberdeen Avenue, Hamilton, Ontario L8P 2N8 (CA). REEVES, Paul [CA/CA]; 1215 Riverbank

Way, Oakville, Ontario L6H 6X4 (CA). TELTZ, Richard [CA/CA]; 368 Herkimer Street, Hamilton, Ontario L8P 2J1 (CA). REEVES, David [CA/CA]; 38 Larkspur Crescent, Ancaster, Ontario L9K 1C6 (CA). SIRPAL, Sanjiv [CA/CA]; 3264 Stocksbridge Avenue, Oakville, Ontario L6M 0E3 (CA). TYGHE, Chris [CA/CA]; 3268 Liptay Avenue, Oakville, Ontario L6M 0N1 (CA).

(74) Agent: MARSH FISCHMANN & BREYFOGLE LLP; Robert G. Crouch, 8055 E. Tufts Avenue, Suite 450, Denver, Colorado 80237 (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, 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,

[Continued on next page]

(54) Title: MULTI-OPERATING SYSTEM

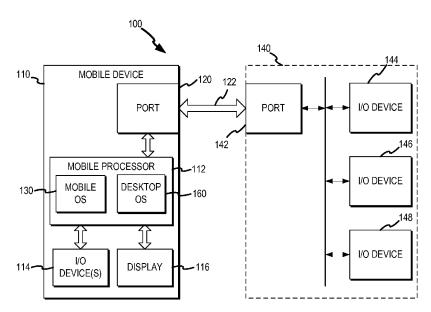


FIG. 1

(57) Abstract: A mobile computing device with a mobile operating system and desktop operating system running concurrently and independently on a shared kernel without virtualization. The mobile operating system provides a user experience for the mobile computing device that suits the mobile environment. The desktop operating system provides a full desktop user experience when the mobile computing device is docked to a secondary terminal environment. The mobile computing device may be a smartphone running the Android mobile OS and a full desktop Linux distribution on a modified Android kernel.



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).

- 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: 21 June 2012

Published:

— with international search report (Art. 21(3))

International application No. PCT/US2011/052988

A. CLASSIFICATION OF SUBJECT MATTER

G06F 9/22(2006.01)i, G06F 13/14(2006.01)i

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) G06F 9/22; G06F 3/00; G06F 9/24; G06F 9/46; G06F 9/00; G06F 15/167; G06F 13/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: multiple, operating system, mobile device, concurrently.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2006-0010314 A1 (XU, Y.) 12 January 2006 See abstract and paragraphs [0002], [0030].	1-4,13-14,17,19-20 5-12,15-16,18
A	US 2009-0158299 A1 (CARTER, E.B.) 18 June 2009 See abstract and claim 1,13.	1-20
A	US 2007-0033260 A1 (GROUZDEV, V. et al.) 08 February 2007 See abstract.	1-20
A	US 05764984A A (LOUCKS, L.K.) 09 June 1998 See abstract and claim 1.	1-20
PA	US 2011-0016299 A1 (GALICIA, J.D. et al.) 20 January 2011 See abstract, paragraphs [0026]-[0034], and figures 2-3.	1-20

	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 application or patent but published on or after the international
- 'L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other
- "P" document published prior to the international filing date but later than the priority date claimed
- "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
- "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
- "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

27 APRIL 2012 (27.04.2012)

Date of mailing of the international search report

03 MAY 2012 (03.05.2012)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office Government Complex-Daejeon, 189 Cheongsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Hwang, Seung Hee

Telephone No. 82-42-481-5749



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/052988

Information on patent family members			PCT/US2011/052988	
Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 2006-0010314 A1	12.01.2006	US 2009-037649 A1	05.02.2009	
		US 2009-037909 A1 US 7424601 B2	05.02.2009 09.09.2008	
US 2009-0158299 A1	18.06.2009	CA 2704269 A1	06.08.2009	
		CN 101896886 A	24.11.2010	
		EP 2220560 A1 IL205475D0	25.08.2010 30.12.2010	
		WO 2009-096935 A1	06.08.2009	
US 2007-0033260 A1	08.02.2007	CA 2534131 A1	17.02.2005	
		CN 1849587 A	18.10.2006	
		EP 1503286 A1	02.02.2005	
		JP 2007-500381 A JP 2007-500381 T	11.01.2007	
		KR 10-2006-0120572 A	11.01.2007 27.11.2006	
		KR20060120572A	27.11.2006	
		WO 2005-015390 A1	17.02.2005	
US 05764984A A	09.06.1998	JP 06-301555 A	28.10.1994	
US 2011-0016299 A1	20.01.2011	US 2011-0016301 A1	20.01.2011	
		US 2011-0093691 A1	21.04.2011	
		US 2011-0093836 A1	21.04.2011	
		US 2011-0126216 A1 WO 2011-011354 A2	26.05.2011 27.01.2011	
		WO 2011-011354 A2 WO 2011-011356 A2	27.01.2011	
		WO 2011-011356 A3	27.01.2011	
		WO 2011-011362 A2	27.01.2011	
		WO 2011-011365 A2	27.01.2011	
		WO 2011-011368 A2	27.01.2011	
		WO 2011-011368 A3	27.01.2011	