



- (51) **International Patent Classification:**  
G06F 3/048 (2013.01) G06F 9/44 (2006.01)  
G06F 3/14 (2006.01)
- (21) **International Application Number:**  
PCT/US20 12/046800
- (22) **International Filing Date:**  
13 July 2012 (13.07.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**

|            |                               |    |
|------------|-------------------------------|----|
| 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 |
| 13/399,929 | 17 February 2012 (17.02.2012) | US |

(74) **Agents:** WILSON, Tadd F. et al; 1560 Broadway, Suite 1200, Denver, Colorado 80202-5141 (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.

(71) **Applicant** (for all designated States except US): **Z124 LLC** [GB/—]; P.O. Box 309GT, Ugland House, South Church Street, Georgetown, Grand Cayman KY1-1104 (KY).

(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, 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).

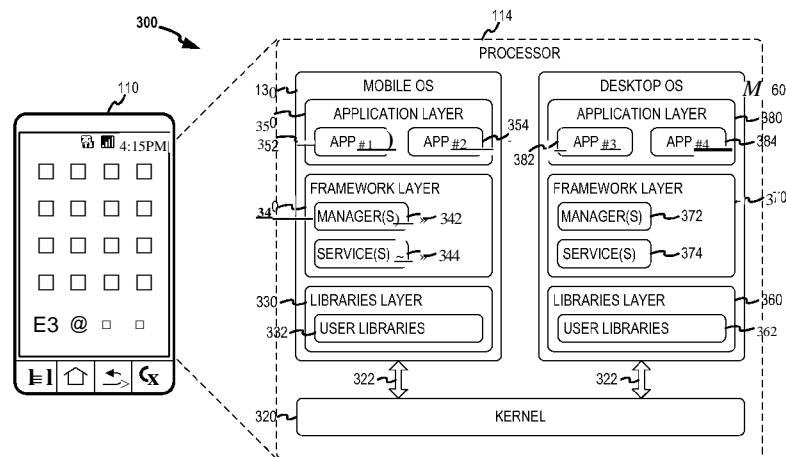
- (72) **Inventors; and**
- (75) **Inventors/Applicants** (for US only): **REEVES, Brian** [CA/CA]; 73 Aberdeen Avenue, Hamilton, Ontario L8P 2N8 (CA). **REEVES, Paul E.** [CA/CA]; 1215 Riverbank Way, Oakville, Ontario L6H 6X4 (CA). **LIU, Wuke** [CA/CA]; 1388 Avonbridge Drive, Mississauga, Ontario L5G 3G5 (CA). **SUSHCHEV, Borys** [CA/CA]; 1191 Haig Boulevard, Mississauga, Ontario L5E 2M6 (CA).

**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:**  
25 April 2013

(54) **Title:** DYNAMIC CROSS-ENVIRONMENT APPLICATION CONFIGURATION





(57) **Abstract:** Dynamic configuration of cross-environment applications enhances the computing experience in a computing environment with an extended active user environment and/or multiple active user environments. A mobile computing device maintains multiple active device configurations associated with multiple active user environments and/or application windows within active user environments. Device configuration qualifiers are determined from a variety of sources including device characteristics, device indicators, user settings, and/or application presentation. The mobile computing device selects active resource sets for applications based on the device configuration qualifiers. Application presentation is dynamically updated by disestablishing an application screen and establishing a new active application screen using a different resource set. The mobile computing device may be a smart-phone running the Android mobile operating system and a full desktop Linux distribution on a modified Android kernel.

WO 2013/010144 A3

## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/US2012/046800**

| <b>A. CLASSIFICATION OF SUBJECT MATTER</b>   |  |  |
|--|--|--|
| <i>G06F 3/048(2006.01)i, G06F 3/14(2006.01)1, G06F 9/44(2006.01)1</i>  |  |  |
| According to International Patent Classification (IPC) or to both national classification and IPC  |  |  |
| <b>B. FIELDS SEARCHED</b>  |  |  |
| Minimum documentation searched (classification system followed by classification symbols)<br>G06F 3/048; G06F 9/445; G06F 3/00; G06F 9/46; G06F 3/041  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched<br>Korean utility models and applications for utility models<br>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)<br>eKOMPASS(KIPO internal) & Keywords: OS, operating system, concurrent, share*, kernel, mobile, active, application, dynamic *   |  |  |
| <b>c. DOCUMENTS CONSIDERED TO BE RELEVANT</b>  |  |  |
| Category*  | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.  |
| Y  | US 2011-0126216 A1 (GALICIA JOSHUA D. et al.) 26 May 2011<br>See paragraphs [0005]-[0047] , [0051] ; figures 2,3,6-8 ,12 . | 1-19   |
| Y  | US 2007-0271522 A1 (KYOUNG-HO SON, et al.) 22 November 2007<br>See paragraphs [0089] - [0111] ; figures 6A,6B,7,8 .        | 1-19   |
| Y  | US 2008-0244599 A1 (HODSON ORION et al.) 02 October 2008<br>See paragraphs [0028]-[0059] ; figures 3-5 .                   | 1-19   |
| A  | US 7880728 B2 (DE LOS REYES AUGUST et al.) 01 February 2011<br>See col .5 line 1-col .8 line 24; figures 3-6 .             | 1-19   |
| A  | US 7950008 B2 (BHIDE MANISH ANAND et al.) 24 May 2011<br>See col .1 line 46-col .8 line 60; figure 1.                      | 1-19   |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.   |  |  |
| * Special categories of cited documents:<br>"A" document defining the general state of the art which is not considered to be of particular relevance<br>"E" earlier application or patent but published on or after the international filing date<br>"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)<br>"O" document referring to an oral disclosure, use, exhibition or other means<br>"P" document published prior to the international filing date but later than the priority date claimed<br>"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<br>"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<br>"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<br>"&" document member of the same patent family |  |  |
| Date of the actual completion of the international search<br>19 FEBRUARY 2013 (19.02.2013)   |  | Date of mailing of the international search report<br><b>20 FEBRUARY 2013 (20.02.2013)</b>   |
| Name and mailing address of the ISA/KR<br> Korean Intellectual Property Office<br>189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan<br>City, 302-70 1 Republic of Korea<br>Facsimile No. 82-42-472-7140   |  | Authorized officer<br>KYUNG, Youn Jeong<br>Telephone No. 82-42-481-3452<br> |

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

**PCT/US2012/046800**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---------------------|----------------------------|---------------------|
| US 2011-0126216 A 1                       | 26.05.2011          | CN 102473102 A             | 23.05.2012          |
|   |                     | EP 2457157 A2              | 30.05.2012          |
|   |                     | EP 2457161 A2              | 30.05.2012          |
|   |                     | EP 2470990 A2              | 04.07.2012          |
|   |                     | US 2011-0016299 A 1        | 20.01.2011          |
|   |                     | US 2011-0016301 A 1        | 20.01.2011          |
|   |                     | US 2011-0093691 A 1        | 21.04.2011          |
|   |                     | US 2011-0093836 A 1        | 21.04.2011          |
|   |                     | WO 2011-011354 A2          | 27.01.2011          |
|   |                     | 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          |
|   |                     | US 2007-0271522 A 1        | 22. 11.2007         |
| EP 1862902 A2                             | 05. 12.2007         |                            |                     |
| JP 05-044283 B2                           | 20.07.2012          |                            |                     |
| JP 2007-317187 A                          | 06. 12.2007         |                            |                     |
| KR 10-0772875 B 1                         | 02. 11.2007         |                            |                     |
| US 2008-0244599 A 1                       | 02. 10.2008         | EP 2143001 A2              | 13.01.2010          |
|   |                     | WO 2008-121910 A2          | 09. 10.2008         |
|   |                     | WO 2008-121910 A3          | 20. 11.2008         |
| US 7880728 B2                             | 01.02.2011          | US 2008-0001924 A 1        | 03.01.2008          |
| US 7950008 B2                             | 24.05.2011          | US 2007-0011672 A 1        | 11.01.2007          |