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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 June 2014 (05.06.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/084878 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2013/028488

(22) International Filing Date:
1 March 2013 (01.03.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/606,321	2 March 2012 (02.03.2012)	US
61/606,301	2 March 2012 (02.03.2012)	US
61/606,313	2 March 2012 (02.03.2012)	US
61/606,333	2 March 2012 (02.03.2012)	US
61/606,336	2 March 2012 (02.03.2012)	US
61/607,451	6 March 2012 (06.03.2012)	US
61/613,745	21 March 2012 (21.03.2012)	US
13/471,202	14 May 2012 (14.05.2012)	US

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(54) Title: SENSOR FUSION ALGORITHM

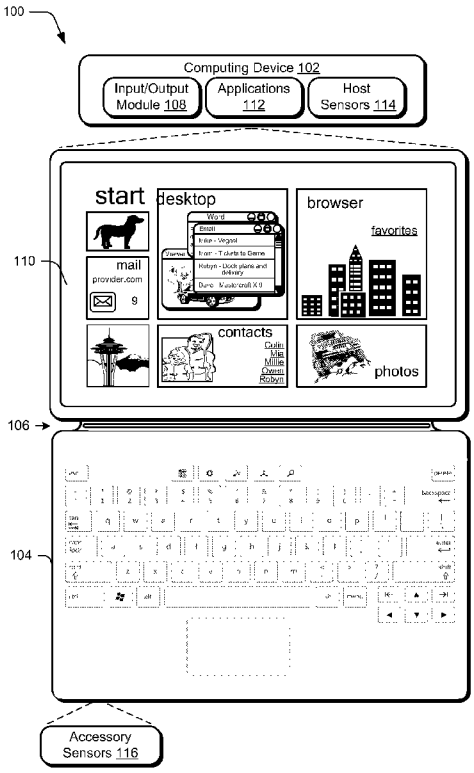

Fig. 1

(57) Abstract: Sensor fusion algorithm techniques are described. In one or more embodiments, behaviors of a host device and accessory devices are controlled based upon an orientation of the host device and accessory devices, relative to one another. A combined spatial position and/or orientation for the host device may be obtained based on raw measurements that are obtained from at least two different types of sensors. In addition, a spatial position and/or orientation for an accessory device is ascertained using one or more sensors of the accessory device. An orientation (or position) of the accessory device relative to the host computing device may then be computed based on the combined spatial position/orientation for the host computing device and the ascertained spatial position/orientation for the accessory device. The relative orientation that is computed may then be used in various ways to control behaviors of the host computing device and/or accessory device.

WO 2014/084878 A2

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(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, BN, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH,

[Continued on next page]

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, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*