

## (51) International Patent Classification:

G06F 3/01 (2006.01) G06F 3/14 (2006.01)

G06F 3/048 (2013.01) G06F 9/44 (2006.01)

## (21) International Application Number:

PCT/US2012/038892

## (22) International Filing Date:

21 May 2012 (21.05.2012)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

61/489,142 23 May 2011 (23.05.2011) US

13/225,081 2 September 2011 (02.09.2011) US

## (71) Applicant (for all designated States except US): MICROSOFT CORPORATION [US/US]; One Microsoft

Way, Redmond, Washington 98052-6399 (US).

## (72) Inventors: CHEN, Liang; c/o Microsoft Corporation,

LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). FONG, Jeffrey, C.; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). ALMOG, Itai; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). KOO, Heesung; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (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.

## (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:

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

## (88) Date of publication of the international search report:

28 March 2013

## (54) Title: CONTEXT AWARE INPUT ENGINE

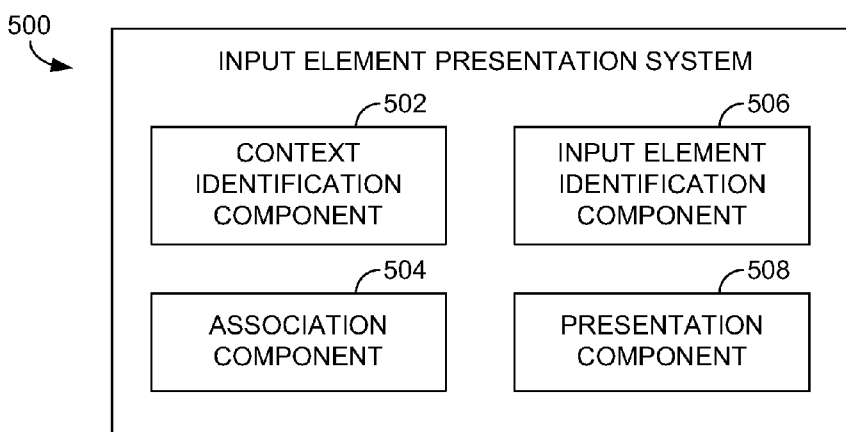


FIG. 5

(57) **Abstract:** Context aware input engines are provided. Through the use of such engines, various input elements may be determined based on analyzing context. A variety of contexts may be analyzed in determining input elements. Contexts may include, for example, a communication recipient, a location, a previous user interaction, a computing device being utilized, or any combination thereof. Such contexts may be analyzed to advantageously provide an input element to a user. Input elements may include, for example, an onscreen keyboard of a certain language, an onscreen keyboard of a certain language, a certain button, a voice recognition module, or text-selection options. One or more such input elements may be provided to the user based on analyzed context

**A. CLASSIFICATION OF SUBJECT MATTER****G06F 3/01(2006.01)i, G06F 3/048(2006.01)i, G06F 3/14(2006.01)i, G06F 9/44(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 3/01; G06F 3/033; G06F 17/30; G06F 17/21; G06F 17/27

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) &amp; Keywords: context, dictionary, interaction, analyze, provide, input elements

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|-------------------------------------------------------------------------------------|-----------------------|
| X         | US 2007-0265831 A1 (ITAI DINUR et al.) 15 November 2007                             | 1,4-6,10              |
| A         | See the abstract, paragraphs [0040]-[0055],[0086]-[0089], claim 1, and figures 4,6. | 2-3,7-9               |
| A         | EP 1701242 A1 (RESEARCH IN MOTION LIMITED) 13 September 2006                        | 1-10                  |
|           | See paragraphs [0010]-[0013],[0028]-[0030], claim 1, and figure 4.                  |                       |
| A         | US 2010-0228770 A1 (KNUTSON CHARLES DOUGLAS et al.) 09 September 2010               | 1-10                  |
|           | See paragraphs [0026]-[0043], claim 1, and figure 2.                                |                       |
| A         | US 2010-0286979 A1 (ZANGVIL Yael KAROV et al.) 11 November 2010                     | 1-10                  |
|           | See paragraphs [0206]-[0271], claim 1, and figures 1,6A.                            |                       |



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 filing date

"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 means

"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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

29 NOVEMBER 2012 (29.11.2012)

Date of mailing of the international search report

**30 NOVEMBER 2012 (30.11.2012)**

Name and mailing address of the ISA/KR

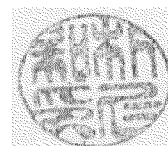
Korean Intellectual Property Office  
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan  
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

PARK, In Hwa

Telephone No. 82-42-481-5722



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2012/038892**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| US 2007-0265831 A1                        | 15.11.2007          | None                       |                     |
| EP 1701242 A1                             | 13.09.2006          | AT 421724 T                | 15.02.2009          |
|                                           |                     | CA 2538636 A1              | 08.09.2006          |
|                                           |                     | CA 2538636 C               | 25.01.2011          |
|                                           |                     | CN 1878191 A               | 13.12.2006          |
|                                           |                     | CN 1878191 B               | 20.07.2011          |
|                                           |                     | DE 602005012480 D1         | 12.03.2009          |
|                                           |                     | EP 1701242 B1              | 21.01.2009          |
|                                           |                     | HK 1094472 A1              | 31.07.2009          |
|                                           |                     | SG 126055 A1               | 30.10.2006          |
| US 2010-0228770 A1                        | 09.09.2010          | None                       |                     |
| US 2010-0286979 A1                        | 11.11.2010          | CA 2694327 A1              | 05.02.2009          |
|                                           |                     | CA 2731899 A1              | 04.02.2010          |
|                                           |                     | CN 101802812 A             | 11.08.2010          |
|                                           |                     | CN 102165435 A             | 24.08.2011          |
|                                           |                     | EP 2183685 A2              | 12.05.2010          |
|                                           |                     | EP 2313835 A1              | 27.04.2011          |
|                                           |                     | JP 2010-535377 A           | 18.11.2010          |
|                                           |                     | JP 2010-535377 T           | 18.11.2010          |
|                                           |                     | JP 2011-529594 A           | 08.12.2011          |
|                                           |                     | US 2011-184720 A1          | 28.07.2011          |
|                                           |                     | WO 2009-016631 A2          | 05.02.2009          |
|                                           |                     | WO 2009-016631 A3          | 05.02.2009          |
|                                           |                     | WO 2009-016631 A3          | 04.03.2010          |
|                                           |                     | WO 2010-013228 A1          | 04.02.2010          |