

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/066138

**A. CLASSIFICATION OF SUBJECT MATTER***G06F 3/01*(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

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2014168061 A1 (KIM SUNG UN [KR]) 19 June 2014 (2014-06-19)	1-5,13-15
Y	paragraphs [0010] - [0020], [0029] - [0049]	6-12
Y	US 2012068917 A1 (HUANG KUANG-MAN [US] ET AL) 22 March 2012 (2012-03-22)	6-12
A	paragraphs [0011] - [0017], [0038] - [0041], [0057] - [0091], [0107] claims 1,4,8,11,12,15,18-20	1-5,13-15

 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 another 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

“&” document member of the same patent family

Date of the actual completion of the international search

**07 August 2018**

Date of mailing of the international search report

**16 August 2018**

Name and mailing address of the ISA/EP

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**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/EP2018/066138**

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
US	2014168061	A1	19 June 2014	CN	103870802	A	18 June 2014
				DE	102013220203	A1	18 June 2014
				KR	20140079162	A	26 June 2014
				US	2014168061	A1	19 June 2014
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US	2012068917	A1	22 March 2012	NONE			
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