

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2017/038637

International filing date (day/month/year)
22.06.2017

Priority date (day/month/year)
29.06.2016

International Patent Classification (IPC) or both national classification and IPC
INV. G06F11/34

Applicant
MICROSOFT TECHNOLOGY LICENSING, LLC

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of this opinion

see form
PCT/ISA/210

Authorized Officer

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>2-7, 9-14</u>
	No: Claims	<u>1, 8, 15</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-15</u>
Industrial applicability (IA)	Yes: Claims	<u>1-15</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Documents

Reference is made to the following document:

D1 US 2007/169055 A1 (GREIFENEDER BERND [AT]) 19 July 2007
(2007-07-19)

Preliminary remarks - claim interpretation

The independent claims have been formulated to be directed to 2 threads (first, second), on which identical actions are performed. From the description, it becomes evident that the actions are intended to be performed on any number of concurrently executed threads (see for example [0031]. The following features mapping therefore omits the redundant mapping to the first/second thread and assumes that the actions are applied to any of a plurality of threads.

Inventive step

D1 discloses:

A computer comprising
a processing system comprising a processing unit and a memory accessible
by threads executed by the processing system, and having a system timer,
the processing system configured to
for any of a plurality of concurrently executing threads ([0018]: "... *multiple
threads to create their own copy ...*")

allocate a buffer in the thread local storage in the memory ([0018]: "...
*performance diagnostics thread-local-storage ... object for the current
thread ...*")

in response to execution of a start command at a beginning of a sequence of
instructions for the thread ([0049]: "... *invocation sensors at the beginning ...*")

store, in the buffer, an identifier of the sequence of instructions ([0042]: "...
remote method meta information ...") and a start time from the system timer at
the time of execution of the start command ([0053]: "... *entry timestamp ...*")

in response to execution of a end command at an end of the sequence of
instructions for the thread ([0049]: "... *exit points ...*")

store, in the buffer and in association with the identifier of the sequence of
instructions, data indicative of an elapsed time between the start time stored
in the buffer and a end time from the system timer at the time of execution of
the end command ([0042]: the various time metrics recorded by D1 include
"... *elapsed time ...*")

The subject-matter of the independent claims 1, 8, 15 is therefore not new (Article
33(2)).

The subject-matter of the dependent claims 2-7, 9-14 relates to architectural
variations that do not add any inventive significance to any claim they depend on.