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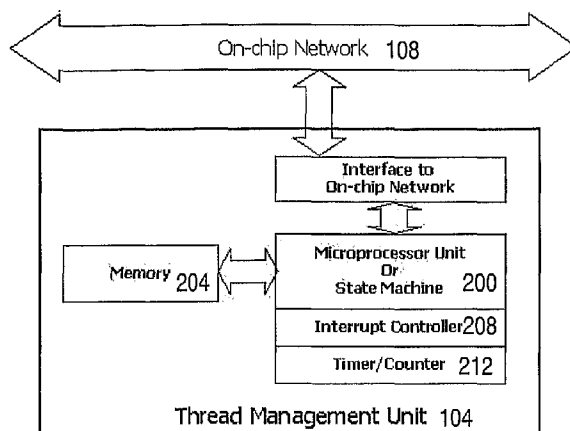
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(54) Title: METHODS AND APPARATUS FOR MULTI-CORE PROCESSING WITH DEDICATED THREAD MANAGEMENT



(57) Abstract: Methods and apparatus for dedicated thread management in a CMP having processing units, interface blocks, and function blocks interconnected by an on-chip network. In various embodiments, thread management occurs independent of any particular processing unit allowing for fast, low-latency switching of threads without incurring the overhead associated with a software-based thread-management thread.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/046438

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F9/38 G06F9/30

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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 272 616 B1 (FERNANDO JOHN S [US] ET AL) 7 August 2001 (2001-08-07) column 6, line 33 - line 40 column 7, line 13 - line 35 column 8, line 10 - line 12 column 11, line 23 - line 32 -----	1-6, 9-12, 14-21, 24, 25
X	US 2002/147760 A1 (TORII SUNAO [JP]) 10 October 2002 (2002-10-10) the whole document -----	1-4, 8-12, 14-22, 24, 25
A	US 2003/074542 A1 (SASAGAWA YUKIHIRO [JP]) 17 April 2003 (2003-04-17) paragraph [0026] -----	7
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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 document but published on or after the international filing date
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- *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.
- *G* document member of the same patent family

Date of the actual completion of the international search

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 2006/074024 A2 (INTEL CORP [US]; WANG HONG [US]; SHEN JOHN [US]; GROCHOWSKI ED [US]; H) 13 July 2006 (2006-07-13) paragraph [0063] -----	1, 14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/046438

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see additional sheet(s)

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12,14-25

Thread management unit

2. claim: 13

Inter-thread dependency

3. claims: 26-29

Creation of objet code

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6272616	B1	07-08-2001	NONE
US 2002147760	A1	10-10-2002	NONE
US 2003074542	A1	17-04-2003	CN 1407455 A 02-04-2003 JP 3708853 B2 19-10-2005 JP 2003076667 A 14-03-2003
WO 2006074024	A2	13-07-2006	NONE