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[Continued on next page]

(54) Title: CONTEXT SWITCH METHOD AND APPARATUS

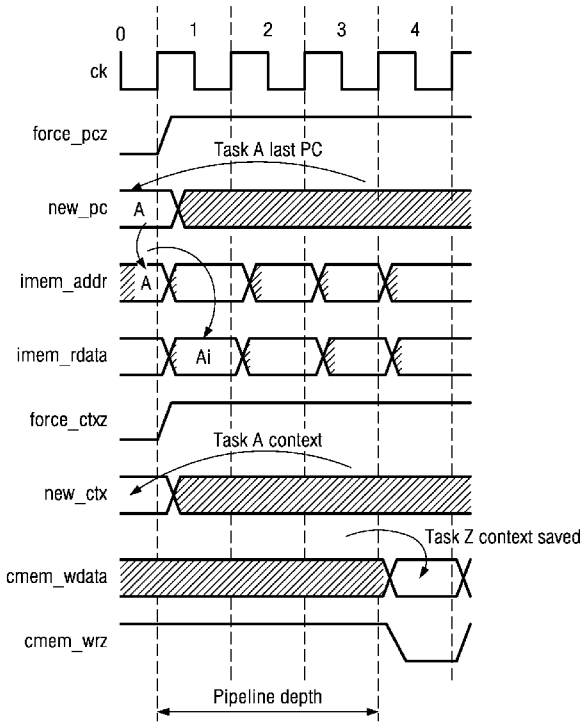

FIG. 17

(57) Abstract: A method for switching from a first context to a second context on a processor having a pipeline with a predetermined depth is provided. A first task in the first context is executed on the processor so that the first task traverses the pipeline. A context switch is invoked by asserting a switch lead (force_pcz, force_ctxz) for the processor through a changing a state of signal on the switch lead (force_pcz, force_ctxz). The second context for a second task is read from a save/restore memory. The second context for the second task is provided to the processor over an input lead (new_ctx, new_pc). Instructions corresponding to the second task are fetched. The second task in the second context is executed on the processor, a save/restore lead (cmem_wrz) on the processor is asserted after the first task has traversed the pipeline to its predetermined pipeline depth.

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Declarations under Rule 4.17:

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

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A. CLASSIFICATION OF SUBJECT MATTER

G06F 9/06(2006.01)i, G06F 9/38(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)

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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) & Keywords: switching, context, pipeline, switch lead, input lead, restore lead;

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0149937 A1 (PILKINGTON CHARLES E.) 07 July 2005 See the abstract, claims 1-30 and figures 1-7.	1-19
A	US 2005-0149931 A1 (LIN JINAN et al.) 07 July 2005 See the abstract, claims 53-100 and figures 1-8.	1-19
A	US 2006-0048148 A1 (PAUL GOOTHERTS et al.) 02 March 2006 See the abstract, claims 1-28 and figures 1-4.	1-19
A	US 2010-0161948 A1 (ABDALLAH MOHAMMAD A.) 24 June 2010 See the abstract, claims 1-10 and figures 1-15.	1-19

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

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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

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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