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(54) **Title:** REGISTER FILE SEGMENTS FOR SUPPORTING CODE BLOCK EXECUTION BY USING VIRTUAL CORES INSTANTIATED BY PARTITIONABLE ENGINES

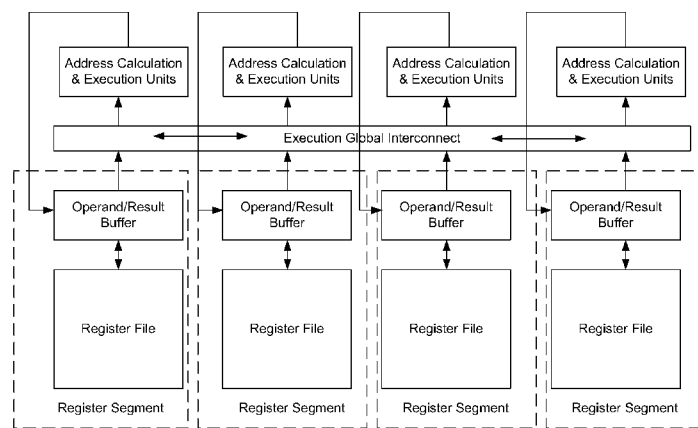


FIG. 6

(57) **Abstract:** A system for executing instructions using a plurality of register file segments for a processor. The system includes a global front end scheduler for receiving an incoming instruction sequence, wherein the global front end scheduler partitions the incoming instruction sequence into a plurality of code blocks of instructions and generates a plurality of inheritance vectors describing interdependencies between instructions of the code blocks. The system further includes a plurality of virtual cores of the processor coupled to receive code blocks allocated by the global front end scheduler, wherein each virtual core comprises a respective subset of resources of a plurality of partitionable engines, wherein the code blocks are executed by using the partitionable engines in accordance with a virtual core mode and in accordance with the respective inheritance vectors. A plurality register file segments are coupled to the partitionable engines for providing data storage.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/030383**A. CLASSIFICATION OF SUBJECT MATTER****G06F 9/46(2006.01)i, G06F 9/30(2006.01)i, G06F 12/08(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 9/46; G06F 9/02; G06F 15/80; G06F 12/00; G06F 9/312; G06F 12/08

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: "instruction sequence, front end scheduler, dependency"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010-0161948 A1 (ABDALLAH MOHAMMAD A.) 24 June 2010 See paragraphs [0033], [0042]. [0075], [0079], [0088]-[0089], [0095], claims 1,2,6-8, and figures 7-12.	9
A		1-8,10-24
A	US 2009-0113170 A1 (ABDALLAH MOHAMMAD A) 30 April 2009 See paragraphs [0037]-[0040], [0051], [0061], [0065], claim 1, and figure 1.	1-24
A	US 2005-0251639 A1 (SANJAY VISHIN et al.) 10 November 2005 See paragraphs [0025], [0033]-[0034], [0037]-[0039], [0042]-[0044], [0049]-[0050], [0064], claim1, and figures 1-2.	1-24
A	US 6473833 B1 (ARIMILLI; RAVI KUMAR et al.) 29 October 2002 See column 1, line 56-61, column 2, line 1-11, column 3, line 8-22, column 10, line 50-58, claim1, and figure 6.	1-24

 Further documents are listed in the continuation of Box C. See patent family annex.

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Information on patent family members

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