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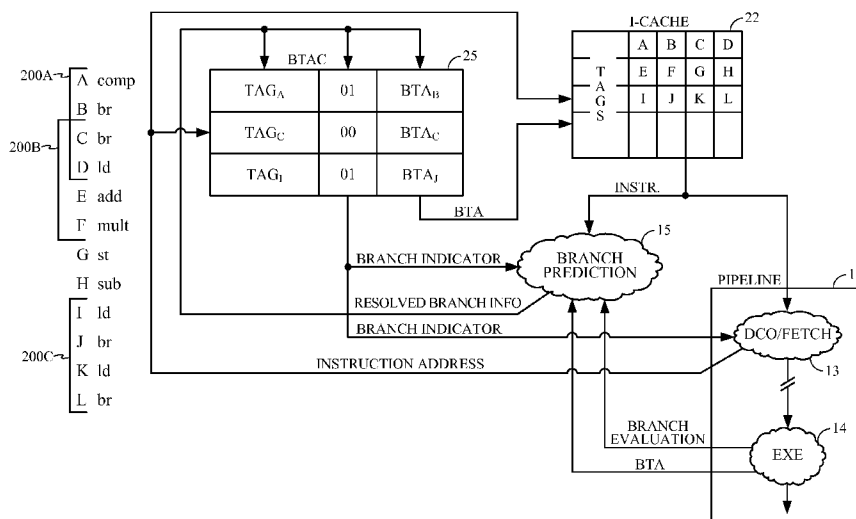
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[Continued on next page]

(54) Title: SLIDING-WINDOW, BLOCK-BASED BRANCH TARGET ADDRESS CACHE



(57) Abstract: A sliding-window, block-based branch target address cache (BTAC) comprises a plurality of entries, each entry associated with a block of instructions containing at least one branch instruction having been evaluated taken, and having a tag associated with the address of the first instruction in the block. The blocks each correspond to a group of instructions fetched from memory, such as an I-cache. Where a branch instruction is included in two or more fetch groups, it is also included in two or more instruction blocks associated with BTAC entries. The sliding-window, block-based BTAC allows for storing the branch target address (BTA) of two or more taken branch instructions that fall in the same instruction block, without providing for multiple BTA storage space in each BTAC entry, by storing BTAC entries associated with different instruction blocks, each containing at least one of the taken branch instructions.

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Declarations under Rule 4.17:

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F9/38

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, INSPEC, 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 5 530 825 A (BLACK BRYAN P [US] ET AL) 25 June 1996 (1996-06-25)	1-7,9-11
A	column 1, line 44 - column 2, line 49 column 3, line 23 - line 45 column 6, line 54 - line 66	8
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A	US 2002/194462 A1 (HENRY G GLENN [US] ET AL) 19 December 2002 (2002-12-19) paragraphs [0011], [0026], [0108] - [0112], [0114], [0117]	1-11

Further documents are listed in the continuation of Box C.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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