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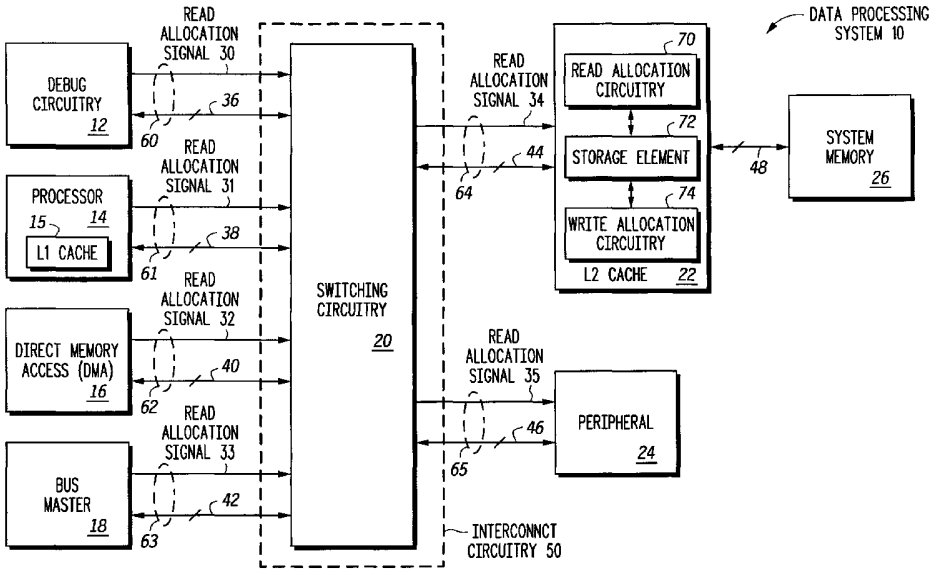
[Continued on next page]

(54) **Title:** READ ACCESS AND STORAGE CIRCUITRY READ ALLOCATION APPLICABLE TO A CACHE



(57) **Abstract:** A read allocation indicator (e.g. read allocation signal 30) is provided to storage circuitry (e.g. cache 22) to selectively determine whether read allocation will be performed for the read access. Read allocation may include modification of the information content of the cache (22) and/or modification of the read replacement algorithm state implemented by the read allocation circuitry (70) in cache (22). For certain types of debug operations, it may be very useful to provide a read allocation indicator that ensures that no unwanted modification are made to the storage circuitry during a read access. Yet other types of debug operations may want the storage circuitry to be modified in the standard manner when a read access occurs.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/13372

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : GO6F 12/00, 13/00
US CL : 711/100, 118, 119, 170.

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)
U.S. : 711/100, 118, 119, 170.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Microsoft Dictionary.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,496,902 B1 (FAANES et al) 17 December 2002 (17.12.2002), column 14, line 25 bridging column 15, line 35.	1-10
A	US 6,353,829 A (KOBLENZ et al) 05 March 2002 (05.03.2002), column 8, lines 57 et seq.	1-10
A	US 5,471,598 A (QUATTROMANI et al.) 28 November 1995 (28.11.1995), Abstract, see entire patent.	1-10

☐ 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

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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

Date of the actual completion of the international search	Date of mailing of the international search report
29 October 2004 (29.10.2004)	08 FEB 2005
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Continuation of B. FIELDS SEARCHED Item 3:
EAST, DERWENT, UPPGPUB, EPO/JPO ABST, IBMTDB
Search terms: read allocation, write allocation, allocation indicator(s)/signal(s), debug/test operation, cache hit/miss, memory allocation.