

08/05/03
2003026796

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 June 2002 (27.06.2002)

PCT

(10) International Publication Number
WO 02/050668 A3

(51) International Patent Classification⁷: G06F 9/38, 9/312

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(21) International Application Number: PCT/US01/49759

(22) International Filing Date:
18 December 2001 (18.12.2001)

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(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW.

(26) Publication Language: English

(30) Priority Data:
09/740,803 21 December 2000 (21.12.2000) US

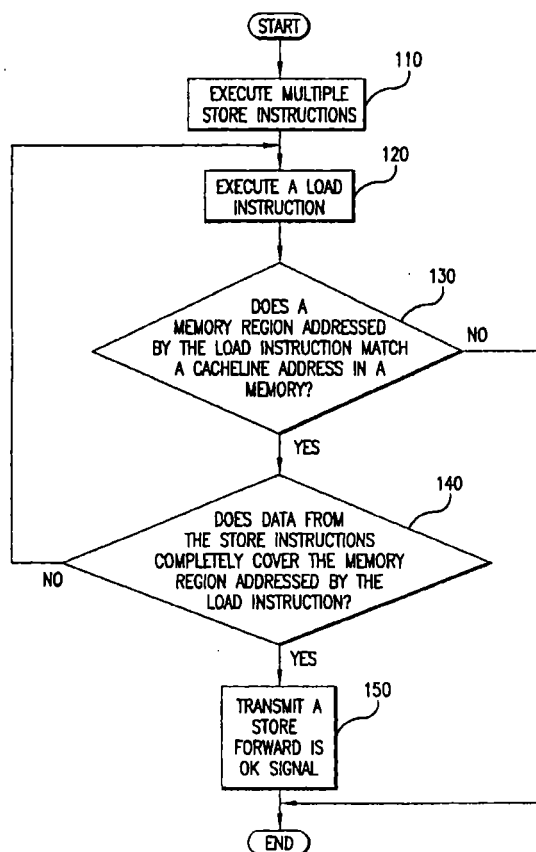
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(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR MULTIPLE STORE BUFFER FORWARDING



(57) Abstract: The present invention relates to the use of multiple store buffer forwarding in a microprocessor system with a restrictive memory model. In accordance with an embodiment of the present invention, the system and method allow load operations that are completely covered by two or more store operations to receive data via store buffer forwarding in such a manner as to retain the side effects of the restrictive memory model thereby increasing processor performance without violating the restrictive memory model. In accordance with an embodiment the present invention, a method for multiple store buffer forwarding in a system with a restrictive memory model includes executing multiple store instructions, executing a load instruction, determining that a memory region addressed by the load instruction matches a cacheline address in a memory, determining that data stored by the multiple store instructions completely covers the memory region addressed by the load instruction, and transmitting a store forward is OK signal.

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European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:

31 October 2002

Published:

- *with international search report*
- *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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