



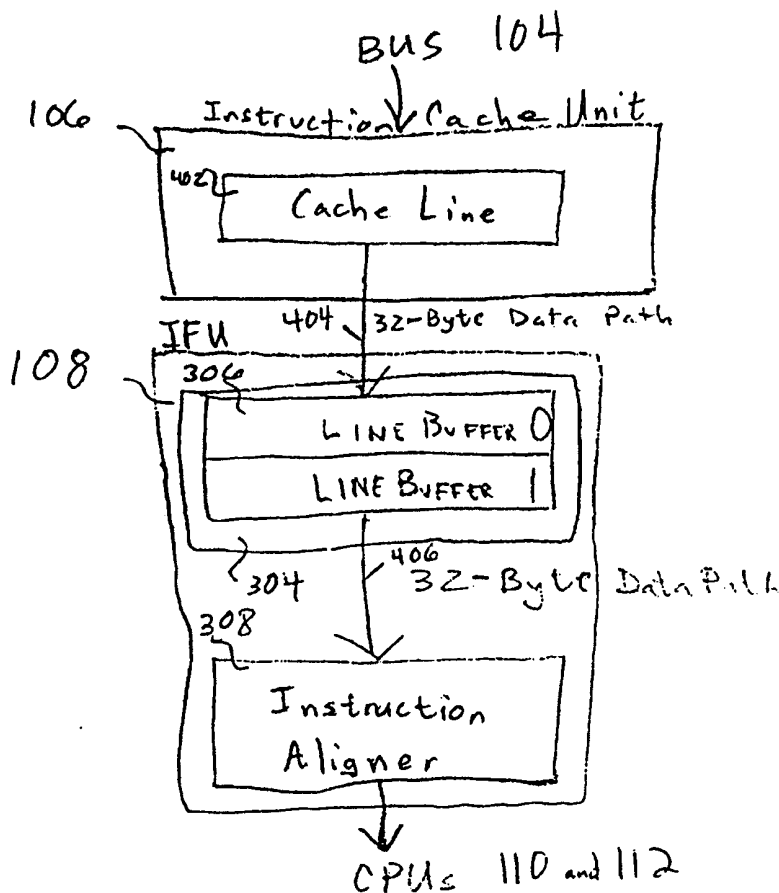
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<p>(21) International Application Number: PCT/US99/28874 (22) International Filing Date: 3 December 1999 (03.12.99) (30) Priority Data: 09/205,121 3 December 1998 (03.12.98) US (71) Applicant: SUN MICROSYSTEMS, INC. [US/US]; 901 San Antonio Road, M/S PAL01-521, Palo Alto, CA 94303 (US). (72) Inventors: TREMBLAY, Marc; 140 Hanna Way, Menlo Park, CA 94025 (US). MURPHY, Graham, R.; 1495 Yukon, Sunnyvale, CA 94087 (US). (74) Agents: TERRILE, Stephen, A. et al.; Skjerven, Morrill, MacPherson, Franklin &amp; Friel, LLP, Suite 700, 25 Metro Drive, San Jose, CA 95110 (US).</p>	<p>(81) Designated States: JP, KR, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  Published With international search report. (88) Date of publication of the international search report: 10 August 2000 (10.08.00)</p>	

(54) Title: DUAL LINE BUFFERS FOR AN INSTRUCTION FETCH UNIT

(57) Abstract

The present invention provides dual line buffers for an instruction fetch unit. In one embodiment an apparatus for a microprocessor includes an instruction cache unit that stores power of two size instruction cache lines and dual line buffers of an instruction fetch unit connected to the instruction cache unit, in which the dual line buffers store power of two size instruction cache lines fetched from the instruction cache unit, and the fetched instruction cache lines include a non-power of two size instruction.



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# INTERNATIONAL SEARCH REPORT

Int. Application No  
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**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06F9/30 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)  
IPC 7 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)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 581 718 A (GROCHOWSKI EDWARD) 3 December 1996 (1996-12-03)	1-4, 6, 8-11
Y	column 4, line 9 - line 56 figures 1-4	7
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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/28874

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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