

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JAMES A. KAHLE,  
CHIN-CHENG KAU and  
DAVID S. LEVITAN

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Appeal No. 96-2445  
Application 08/289,801<sup>1</sup>

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ON BRIEF

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Before THOMAS, JERRY SMITH and FLEMING, Administrative Patent  
Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed August 12, 1994. According to appellants, this application is a continuation of Application 08/001,867, filed January 8, 1993 (abandoned).

Appeal No. 96-2445  
Application 08/289,801

Appellants have appealed to the Board from the examiner's final rejection of claims 9 through 16, which constitute all the claims remaining in the application.

Representative independent claim 9, is reproduced below:

9. A method for increased instruction dispatch efficiency in a superscalar processor system having an instruction queue for receiving instructions in an application specified sequential order and loading a group of instructions in parallel into an associated instruction buffer and an instruction dispatch unit for dispatching instructions from said associated instruction buffer to a plurality of execution units on an opportunistic basis, said method comprising the steps of:

periodically determining if an instruction within a first group of instructions within said associated instruction buffer has been dispatched to one of said plurality of execution units;

serially shifting remaining instructions within said associated instruction buffer in said application specified sequential order in response to a determination that an instruction within said first group of instructions within said associated instruction buffer has been dispatched; and

selectively loading said associated instruction buffer with an additional group of instructions in parallel in said application specified sequential order utilizing only a portion of a second group of instructions within said instruction queue in response to said shifting of said remaining instructions.

Appeal No. 96-2445  
Application 08/289,801

The following references<sup>2</sup> are relied on by the examiner:

Boufarah et al. (Boufarah)	5,127,091	June 30, 1992
Rasbold et al. (Rasbold)	5,202,975	Apr. 13, 1993

(filed June 10, 1992)

Claims 9 through 16 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Rasbold in view of Boufarah.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and the answer for the respective details thereof.

#### OPINION

We reverse the outstanding rejection of all pending claims on appeal under 35 U.S.C. § 103. In rendering this decision, we assume for the sake of argument that both

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<sup>2</sup> We note that page 2 of the Answer lists three additional references cited by the examiner. Since they have not been relied upon in the formulation of any rejection of any claim on appeal, they have not been considered.

Appeal No. 96-2445  
Application 08/289,801

references relied upon would have been properly combinable within 35 U.S.C. § 103 from an artisan's perspective.

Our study of the claims on appeal indicates that the subject matter of method independent claim 9 is mirrored in apparatus independent claim 12 on appeal. The body of each independent claim reflects subject matter and specific elements previously recited in the preamble of each respective claim including the loadability of instructions in parallel into an associated instruction buffer. Claim 9 further recites the feature of "serially shifting remaining instructions within said associated instruction buffer."

Appellants argue at page 6 of the brief that Rasbold does not show or suggest in any way this feature, and also argue at two locations on page 7 of the brief that Boufarah does not teach or suggest the same feature. With this thrice argued position of the appellants, we agree.

There is no teaching or suggestion or structural showing of such feature in either reference including Figure 3 of Boufarah, which figure appears to most structurally relate to the disclosed and claimed invention of any of the figures of the two references relied upon. As disclosed, this serial

shifting operation claimed is provided by the shifting capabilities immediately preceding or associated with the instruction buffer 54 in the various portions of Figure 2. In contrast, the multiplex network 52 in Figure 3 of Boufarah does not perform the required shifting operations "within" the associated instruction buffers 36 or 38 above it in Figure 3. Any shifting operations that may be attributed to the multiplex network 52 in this figure clearly occur after but not contemporaneous or within either of the instruction buffers 36 and 38. Inasmuch as there are no structural figures comparable to Figure 3 of Boufarah in Rasbold, the written description portion of Rasbold relied upon by the examiner as to this feature does not appear to us to teach the subject matter of the noted shifting operation clause in each independent claim on appeal.

For his part, the examiner's position as to this feature appears to generally relate only to a time sequential or serial instruction sequencing operations. That each respective reference may in some manner serially shift instructions in time is not necessarily dispositive of the requirement to meet the claimed feature of serially shifting

Appeal No. 96-2445  
Application 08/289,801

instructions within an instruction buffer. The examiner's position appears to rely upon shifting operations that may fairly be attributed to the operation of the circuits within each reference outside of but not within an instruction buffer.

Therefore, in view of the foregoing, the decision of the examiner rejecting independent claims 9 and 12 under 35 U.S.C. § 103 must be reversed. As such, the rejection of the respective dependent claims of these claims also cannot be sustained.

Appeal No. 96-2445  
Application 08/289,801

The decision of the examiner is reversed.

REVERSED

	JAMES D. THOMAS	)	
	Administrative Patent Judge	)	
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		)	
		)	
	JERRY SMITH	)	BOARD OF
PATENT	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
		)	
	MICHAEL R. FLEMING	)	
	Administrative Patent Judge	)	

Appeal No. 96-2445  
Application 08/289,801

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Appeal No. 96-2445  
Application 08/289,801

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