

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte THOMAS F. BOWEN and WILLIAM H. MANSFIELD

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Appeal No. 95-3872  
Application No. 08/171,266<sup>1</sup>

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ON BRIEF

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Before HAIRSTON, KRASS and BARRETT, Administrative Patent Judges.  
KRASS, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on appeal from the final rejection of claims 8, 9 and 11 through 18, all of the claims pending in the application.

The invention is directed to a method for updating database values without the use of locking operations. While locking operations employed by the prior art maintained consistency of

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<sup>1</sup> Application for patent filed December 21, 1993. According to appellants, this application is a continuation of Application 07/630,557, filed December 20, 1990, now abandoned.

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data values from one transaction to another, a desirable feature also achieved by the instant invention, the prior locking operations, by locking away data values involved in a current transaction, also made the data values inaccessible for processing by another transaction. Thus, serialization delays resulted as transactions queued up to gain access to certain data values. Through the use of an aggregation system, without the use of locking operations, the instant invention is said to achieve both consistency of data values and the ability to concurrently read and update a specific data value in different transactions.

Representative independent claim 8 is reproduced as follows:

8. A method of using an aggregation system, having memory means for storing a plurality of data values, to read data values and to perform concurrent updates of data values such that access to each data value for reading and concurrently updating each data value is maintained, the method comprising the steps of

storing in the memory means a first relation comprising, for each of a plurality of numeric data values, a base value and a time-stamp indicating when the base value was computed,

storing in the memory means a second relation comprising, for each of said numeric data values, one or more incremental updates and a time-stamp for each incremental update,

reading a specific numeric data value by

electronically retrieving from the first relation in the memory means a base value of said specific numeric data value,

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electronically retrieving from the second relation in the memory means incremental updates associated with the specific numeric data value having a time-stamp which is later than the time-stamp of said base value of said specific numeric data value, and

utilizing electronic processing means to aggregate the retrieved base value and incremental updates, and

performing concurrent updates of said specific numeric data value by

receiving at said processing means other incremental updates associated with said specific numeric data value from a computer which processes database transactions, and

writing said other incremental updates into said second relation in the memory means.

The examiner relies on the following references:

Gausmann et al. (Gaussmann) 5,230,073 Jul. 20, 1993  
(filed Jun. 6, 1989)

Rochkind, "The Source Code Control System," IEEE Transactions on Software Engineering, Vol. SE-1, No. 4 (December 1975) pp. 364-370.

Katz et al. (Katz), "Database Support for Versions and Alternatives of Large Design Files," IEEE Transactions on Software Engineering, Vol. SE-10, No. 2 (March 1984) pp. 191-200.

Claims 8, 9 and 11 through 18 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner cites Rochkind with regard to claims 8, 11 and 14 through 18, adding Gausmann

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with regard to claim 9 and citing Rochkind and Katz with regard to claims 12 and 13.<sup>2</sup>

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the rejections under 35 U.S.C. 103 should be reversed because the examiner has not set forth a prima facie case of obviousness with regard to the claimed subject matter.

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<sup>2</sup> The examiner never explicitly includes a statement in the answer regarding the grounds of rejection against claims 12 and 13 but it is clear from the final rejection, answer and appellants' brief that these claims are rejected under 35 U.S.C. 103 over Rochkind and Katz.

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Rather than go through the details of each and every independent claim and the claims dependent therefrom, we note that each and every claim requires at least, in one form or another, the reading of data values and performing concurrent updates of data values in order to maintain access to each data value for reading and updating. The claimed method also requires, in one form or another, the storage of a base value and incremental updates in order to aggregate the base value and incremental updates.

There is no disagreement between appellants and the examiner that Rochkind fails to provide for concurrent updating. The updates are not concurrent in Rochkind because, as Rochkind explains at page 367, right-hand column, any attempt to add a delta, or change, in a module is "locked out," access being permitted only for read-only purposes.

The whole purpose of the instant invention is to provide an improvement over the systems employing "lock out" so as to provide for the ability to concurrently read and update a specific data value in different transactions. Yet, the examiner boldly states that even though Rochkind provides for locking, the very thing appellants want to avoid, the "reference is implicit evidence that a system without locking was old in the

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art since Rochkind specifically provides for locking, implicitly recognizing this need over a system without locking..." [answer-page 9]. This circular and obfuscatory reasoning of the examiner, i.e., that because a reference teaches something, it also implicitly teaches the opposite of that something, falls far short of establishing a prima facie case of obviousness by a convincing line of reasoning.

Thus, since the changes made in Rochkind are locked out during updates, Rochkind teaches away from the instant claimed invention. Neither Katz, which deals with minimizing disk requirements by storing software versions on-line, nor Gausmann, which deals with broadcast oriented architecture for a data storage access system, provides for the deficiencies of Rochkind.

The examiner appears to be giving the claim language a rather broad interpretation, indicating that appellants' realization of "consistency" and "concurrency" is achieved by Rochkind "[t]o the extent disclosed" [answer-page 15] and that "to the extent disclosed and claimed...the examiner's reading of Rochkind is not a stretching of the reference..." [answer-page 17]. It is our view that the examiner's interpretation of the claim language, and it is not entirely clear what that interpretation is, is unreasonably broad since the claims are

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very specific as to the concurrent updates of data values and as to the aggregation of a base value and incremental updates, features which are clearly not taught or suggested by Rochkind, or either of the other applied references.

The examiner's decision rejecting claims 8, 9 and 11 through 18 under 35 U.S.C. 103 is reversed.

**REVERSED**

KENNETH W. HAIRSTON	)	
Administrative Patent Judge)	)	
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	)	
ERROL A. KRASS	)	BOARD OF PATENT
Administrative Patent Judge)	)	APPEALS AND
	)	INTERFERENCES
	)	
LEE E. BARRETT	)	
Administrative Patent Judge)	)	

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