

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL G. PERKINS

Appeal No. 1997-0410
Application No. 08/041,446

ON BRIEF

Before KRASS, DIXON, and GROSS, **Administrative Patent Judges.**

DIXON, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-12, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a method and apparatus for effecting seamless data rate changes in a video compression system. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method for operating a video compression system comprising at least one encoder providing data to an encoder buffer and a decoder taking data from a decoder buffer, comprising the steps of:

(a) changing the rate at which the encoder provides data to the encoder buffer from a first rate R to a second rate R' ; and

(b) maintaining an encoder buffer occupancy $b_e(t)$ such that: (1) prior to time $T_o - T_d$, $\max\{0, Rt_d - B_d\} \leq b_e(t) \leq \min\{B_e, RT_d\}$; and (2) after time T_o , $\max\{0, R'T_d - B_d\} \leq b_e(t) \leq \min\{B_e, R'T_d\}$; and (3) during the time $T_o - T_d \leq t \leq T_o$, $\max\{0, RT_o - Rt + R't + R'T_d - R'T_o - B_d\} \leq b_e(t) \leq \min\{B_e, RT_o - Rt + R't + R'T_d - R'T_o\}$; wherein t represents time, T_o represents the time at which the data rate changes from R to R' , B_d represents the maximum capacity of the decoder buffer, B_e represents the maximum capacity of the encoder buffer, and T_d represents the delay caused by the encoder and decoder buffers.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Paik et al. (Paik)	5,216,503	Jun. 01, 1993 (Filed Dec. 24, 1991)
Lucas	5,235,418	Aug. 10, 1993 (Filed Nov. 19, 1991)
Ansari et al. (Ansari)	5,253,059	Oct. 12, 1993 (Filed May 15, 1992)

Claims 1, 3, 5, 8 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ansari. Claims 2, 4, 6, 7, 9, 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ansari in view of Paik and Lucas.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 17, mailed Jul. 23, 1996) for the examiner's reasoning in support of the

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rejections, and to the appellant's brief (Paper No. 16, filed Jun. 10, 1996) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

Appellant argues that the examiner has not set forth a *prima facie* case of obviousness since the examiner has not set forth prior art which teaches or suggests the step of maintaining the encoder buffer occupancy which is recited in the language of independent claims 1, 8 and 12. (See brief at pages 5-7.) We agree with appellant. The examiner maintains that the encoder occupancy of Ansari is a time varying function and that "it is considered obvious if not inherent that some sort of necessary and required equations and limitations with computer control similar if not the same as that claimed are required in order to provide the same effective rate buffering system." (See answer at pages 8-9.) While we agree that there is most likely a structured buffering theory in Ansari which may be able to be described mathematically, we cannot agree with the examiner that any description thereof has been set forth in the text of Ansari or by any

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convincing line of reasoning by the examiner. In our view, Ansari does not disclose maintaining the occupancy relationship as recited in the language of claim 1 step (b).

In the rejection, the examiner interprets the claim language broadly since appellant has not set forth in the specification the criticality of the equations and the limits regarding the encoder occupancy. The examiner equates the claimed limits similar to those discussed in the cited case at page 10 of the answer and contends that the claimed limits are within the level of the skilled artisan in light of the general desirability of limits as disclosed by Ansari. We disagree with the examiner. Although Ansari discloses maintaining the occupancy of the rate buffer between upper and lower limits, Ansari is silent as to the levels with respect to time. Therefore, we will not sustain the rejection of claim 1 and dependent claims 3 and 5 under 35 U.S.C. § 103. Claim 8 contains similar limitations as claim 1; therefore, we will not sustain the rejection of claim 8 and dependent claim 10.

With respect to independent claim 12, the examiner relies upon the teachings of Paik and Lucas to teach additional limitations included in this claim. The examiner has not relied upon the two additional references to teach or suggest the missing teaching concerning the upper and lower limits, and from our review, we find that Paik and Lucas do not remedy the deficiency in Ansari; therefore, we will not sustain the rejection of claim 12 and dependent claims 2, 4, 6, 7, 9 and 11.

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CONCLUSION

To summarize, the decision of the examiner to reject claims 1-12 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JOSEPH L. DIXON)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
ANITA PELLMAN GROSS)	
Administrative Patent Judge)	

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