

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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***Ex parte*** SAKAE ITOH, TATSUYA SAKAI, MASAYUKI MURAKAMI  
and TSUTOMU NUMATA

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Appeal No. 2003-0965  
Application No. 09/030,829

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ON BRIEF

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Before FLEMING, RUGGIERO, and MACDONALD, ***Administrative Patent Judges.***

MACDONALD, ***Administrative Patent Judge.***

***DECISION ON APPEAL***

This is a decision on appeal from the final rejection of claims 1-10.

***Invention***

Appellants' invention relates to control of the input/output operation between a microcomputer unit (MCU) and a hard disc controller (HDC). The MCU and HDC are synchronized with a clock. (Appellants' specification, page 25, lines 20-25). In the case of an output operation, the MCU sends a data read request signal

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to the HDC to request data be sent from the HDC to the MCU.

(Specification, page 33, lines 12-13). The HDC sends a response status signal (acknowledgment signal ACK) to the MCU, which causes the MCU to read a "read data" (a data word) from the HDC.

(Specification, page 33, line 19-33). The timings of the ACK signals are continuous, discrete, or a combination of both depending on the processing condition of the HDC.

(Specification, page 25, lines 26-31). For a single request signal from the MCU, in a first mode the HDC sends one (discrete) ACK signal, in a second mode the HDC sends plural (continuous) ACK signals, and in a third mode some combination of the ACK signals.

Claim 1 is representative of the claimed invention and is reproduced as follows:

1. A data access unit including a hard disk controller and a microcomputer unit connected to said hard disk controller, said data access unit comprising:

clock synchronizing means for operating said hard disk controller and said microcomputer unit in synchronization with a clock signal; and

control means for controlling timing of outputting a hard disk controller-to-microcomputer response status for each read data depending on a processing condition of the hard disk controller, the timing of the output of the response status being continuous, discrete or a combination thereof for each read data.

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### **References**

The references relied on by the Examiner are as follows:

Culley	5,159,679	Oct. 27, 1992
Henson et al. (Henson)	5,465,343	Nov. 7, 1995
Squires et al. (Squires)	5,610,808	Mar. 11, 1997

### **Rejections At Issue**

Claims 1, 2, and 10 stand rejected under 35 U.S.C. § 103 as being obvious over the combination of Squires and Culley.

Claims 3-9 stand rejected under 35 U.S.C. § 103 as being obvious over the combination of Henson and Culley.

Throughout our opinion, we make references to the Appellants' brief, and to the Examiner's Answer for the respective details thereof.<sup>1</sup>

### **OPINION**

With full consideration being given to the subject matter on appeal, the Examiner's rejections and the arguments of the Appellants and the Examiner, for the reasons stated *infra*, it is our view, after consideration of the record before us, that the Examiner has not established a *prima facie* case of obviousness with respect to claims 1-10. Accordingly, we reverse the Examiner's rejection of claims 1-10 under 35 U.S.C. § 103.

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<sup>1</sup>Appellants filed an appeal brief on October 7, 2002. The Examiner mailed out an Examiner's Answer on December 17, 2002.

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We also use our authority under 37 CFR § 1.196(b) to enter a new ground of rejection of claims 1-10. The basis for this is set forth in detail below.

Appellants have indicated that for purposes of this appeal, the claims stand or fall together in two groupings:

Claims 1, 2, and 10 as Group I; and

Claims 3-9 as Group II.

See page 14 of the brief. Furthermore, Appellants argue each group of claims separately and explain why the claims of each group are believed to be separately patentable. See pages 14-19 of the brief. Appellants have fully met the requirements of 37 CFR § 1.192 (c) (7) (July 1, 2002) as amended at 62 Fed. Reg. 53169 (October 10, 1997), which was controlling at the time of Appellants' filing of the brief. 37 CFR § 1.192 (c) (7) states:

*Grouping of claims.* For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c) (8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

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We will, thereby, consider Appellants' claims as standing or falling together in the two groups noted above, and we will treat:

Claim 1 as a representative claim of Group I; and

Claim 3 as a representative claim of Group II.

"If the brief fails to meet either requirement, the Board is free to select a single claim from each group and to decide the appeal of that rejection based solely on the selected representative claim." *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002). See also *In re Watts*, 354 F.3d 1362, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004).

**I. Rejection of Claims 1-10 Under 37 CFR § 1.196(b).**

We make the following new grounds of rejection using our authority under 37 CFR § 1.196(b).

Claims 1-10 are rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for "the timing of the output of the response status being . . . **discrete** . . . for each read data," does not reasonably provide enablement for "the timing of the output of the response status being . . . **continuous** . . . for each read data." The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to

make and use the invention commensurate in scope with these claims.

The question before us is, what would Appellants' specification have taught one having ordinary skill in the art?

To answer this question we find the following facts:

1. Appellants' specification, page 25, lines 29-30, states that, "the timing of outputting the signal ACK can be set continuous . . . for each word."
2. Appellants' specification, page 33, lines 19-33, shows that a "word" is equivalent to a "read data" as found in claim 1.
3. The specification, page 21, lines 29-30, states that, "the HDC outputs the response status signal to the MCU for each access." We read "access" as "read data access" or "word access" since the FIFO at line 30 is word based (see line 25).
4. The specification, page 22, line 2, states that, "[t]he response status signal is generated for each access." Again we read "access" as "read data access" or "word access."
5. The specification, page 22, lines 9-10, states that, "the response status signal is applied to the MCU upon each data transfer." We read, "transfer" as "word transfer."
6. The specification, page 33, lines 21-24 and 29-32, shows that in the continuous access method (see line 5) the timing of the response status (ACK) signal is discrete for each read data.

We find that nowhere in Appellants' specification, except for 1 above, is there anything about "the timing of the output of the response status being **continuous** for each read data."

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Rather, as shown at 3-6 above, the timing of the output of the response status is actually taught as being **discrete** for each read data. We find that if the response status (ACK) signal were indeed to be continuous for any data read (data word), then the device of Appellants' specification would be inoperative. Given that the MCU inputs (or outputs) a data word for each ACK, if a second ACK were sent in the middle of a read data (data word) by the MCU, then the MCU would attempt a second input operation on top of the first.

We note that had the phrase "each read data" in claim 1, instead been "each access request signal," then the result would be the opposite. We find that all of Appellants' specification is directed to the timing of the output of the response status (ACK signal) being discrete or continuous for **each access request signal**. Thus, the specification would be enabled for a claim where the MCU retrieves a data word for each ACK signal the MCU receives, and for a single access request signal sent from the MCU, in a first mode the HDC sends one (discrete) ACK signal and in a second mode the HDC sends plural (continuous) ACK signals.

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**II. Whether the Rejection of Claims 1, 2, and 10 Under  
35 U.S.C. § 103 is proper?**

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1, 2, and 10. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a **prima facie** case of obviousness. **In re Oetiker**, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). **See also In re Piasecki**, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. **In re Fine**, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. **Oetiker**, 977 F.2d at 1445, 24 USPQ2d at 1444. **See also Piasecki**, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In

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reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." *In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

With respect to independent claim 1, we find that the Examiner has not addressed the limitation of Appellants' claims that require that "the timing of the output of the response status being . . . **continuous**. . . for each read data." For this reason alone, we find that the Examiner has not met the initial burden of establishing a *prima facie* case of obviousness with respect to the rejection based on these two references. Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103.

**III. Whether the Rejection of Claims 3-9 Under 35 U.S.C. § 103 is proper?**

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 3-9. Accordingly, we reverse.

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With respect to independent claim 3, we find that the Examiner has not addressed the limitation of Appellants' claims that require that "the timing of the output of the acknowledgment signal being . . . **continuous** . . . for each read data." For this reason alone, we find that the Examiner has not met the initial burden of establishing a **prima facie** case of obviousness with respect to the rejection based on these two references. Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 103.

#### **Conclusion**

In summary we have not sustained the rejection under 35 U.S.C. § 103 of claims 1-10. We have entered a new ground of rejection against claims 1-10 under 37 CFR § 1.196(b).

As indicated **supra**, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective December 1, 1997, by final rule notice, 62 Fed. Reg 53131, 53197 (October 10, 1997), 1203 Off. Gaz. Pat, Office 63, 122 (October 21, 1997)). 37 CFR § 1.196(b) provides that, "[a] new ground of rejection shall not be considered final for the purposes of judicial review."

37 CFR § 1.196(b) also provides that the Appellants, **WITHIN TWO MONTHS FROM THE DATE OF THE DECISION**, must exercise one of the following two options with respect to the new grounds of

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rejection to avoid termination of proceedings (§ 1.197 (c)) as to  
the rejected claims:

(1) Submit an appropriate amendment of the claims so  
rejected or a showing of facts relating to the claims so  
rejected, or both, and have the matter reconsidered by the  
examiner, in which event the application will be remanded to  
the examiner . . .

(2) Request that the application be reheard under  
§ 1.197(b) by the Board of Patent Appeals and Interferences  
upon the same record . . .

No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

**REVERSED; 1.196(b)**

MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JOSEPH F. RUGGIERO	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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ALLEN R. MACDONALD	)	
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