

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ADAM MICHAEL ESPESETH,
ROBERT ANTON STEINBACH and
TREVOR JAMES BRIGGS

Appeal 2007-0915
Application 10/764,946¹
Technology Center 2100

Decided: May 21, 2007

Before: RICHARD TORCZON, SALLY C. MEDLEY, and MARK
NAGUMO, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

DECISION ON APPEAL

1 **A. Statement of the Case**

2 Applicants appeal under 35 U.S.C. § 134 from a final rejection of
3 claims 1-5 and 7-20. We have jurisdiction under 35 U.S.C. § 6(b).

1 Application for patent filed 26 January 2004. The real party in interest is Hitachi Global Storage Technologies, Netherlands, B.V.

1 A hard disk drive (HDD) comprising:
2 at least one rotatable disk;
3 at least one data transfer element; and
4 at least one HDD controller controlling the data transfer element to
5 execute commands in a queue, at least one command being selected
6 for execution based on at least one of: an optimized throughput
7 benefit, or an optimized operation rate benefit, wherein the throughput
8 benefit is determined based at least in part on a pipe length.

9 3. Instead of reciting “or an optimized operation rate benefit” original
10 claim 1 recited “and an optimized operation rate benefit.” (‘946, original
11 claim 1.)

12 4. In a paper dated JUN 01 2006 and styled “RESPONSE TO
13 TELEPHONE INTERVIEW,” Applicants explained the change from “and”
14 to “or” as follows:

15 With respect to the changes in the claims from “and” to “or” in
16 certain instances, Applicant has been made aware of Superguide
17 Corp. v. DirectTV Enterprises, Inc., 358 F.3d 870 (Fed. Cir.
18 2004) in which a claim recitation of “at least one of A, B, C,
19 and D” was held to minimally require at least one element from
20 each of the categories A, B, C, and D, not one or more elements
21 from one or more categories as intended in the present case,
22 with the Federal Circuit noting that for the latter interpretation
23 to hold, the conjunctive “or” should be used. Accordingly, the
24 present amendment is believed to reconcile, with the
25 Superguide case, both Applicant’s intended claim scope and
26 what Applicant believes to have been the examiner’s
27 understanding of the claimed invention when examination was
28 conducted.

1
2 5. In the Appeal Brief, under section (5) styled “Summary of Claimed
3 Subject Matter,” Applicants state that claim 1 includes “[a]t least one
4 command is selected for execution based on an optimized throughput benefit
5 (page 7 and figure 2) and/or an optimized operation rate benefit (page 8 and
6 figure 3), wherein the throughput benefit is determined based on a pipe
7 length” (Emphasis added) (Appeal Br. at 2-3).

8 6. The Examiner finally rejected independent claim 1 and dependent
9 claim 5 based on Clegg.

10 7. The Examiner argued that Clegg teaches both selecting a command
11 based on an optimized throughput benefit and an optimized operation rate
12 benefit (Answer 4).

13 8. For the optimized operation rate benefit feature, the Examiner
14 relied on Clegg column 2, lines 25-30 to column 3, line 4 (Answer 4 and 7).

15 9. In the Appeal Brief and Reply Briefs, Applicants’ argument is
16 based solely on that Clegg fails to describe “wherein the throughput benefit
17 is determined based at least in part on a *pipe length*” (emphasis added)
18 (Appeal Br. 4-5; Reply Br. 1-2, dated Sept. 19, 2006; Reply Br. 1-2, dated
19 Oct. 25, 2006).

20 10. Applicants do not dispute that Clegg describes selecting a
21 command for execution based on an optimized operation rate benefit.

22 **D. Principles of Law**

23 Claim interpretation is a question of law, but the subordinate findings
24 relating to proper claim construction are issues of fact. Claim elements must

1 be construed as they would be understood by those skilled in the art. *See*
2 *Hoechst Celanese Corp. v. B.P. Chems., Ltd.*, 78 F.3d 1575, 1578, 38
3 USPQ2d 1126, 1129 (Fed. Cir. 1996).

4 **E. Analysis**

5 Claim 1, when properly interpreted, requires selection of a command
6 to be executed based on at least one of (1) an optimized throughput benefit,
7 which is determined based at least in part on a pipe length, or (2) an
8 optimized operation rate benefit (FF 2). Claim 1 does not require selection
9 of the command based on both an optimized throughput benefit and an
10 optimized rate benefit. Applicants apparently agree with this interpretation
11 (FFs 4 and 5).

12 A reference that describes either an optimized throughput benefit
13 (determined based at least in part on a pipe length) or an optimized operation
14 rate benefit meets the optimized limitation.

15 Applicants' arguments are with respect to the "optimized throughput
16 benefit" limitation, e.g., whether Clegg describes an optimized throughput
17 benefit that is determined based on pipe length (FF 9). Applicants are silent
18 with respect to whether Clegg describes an "optimized operation rate
19 benefit." Since Applicants have failed to sufficiently demonstrate that the
20 Examiner's findings that Clegg describes an "optimized operation rate
21 benefit" (FF 7) are erroneous, the Examiner's rejection of claim 1 is
22 affirmed.

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1 Since Applicants do not separately address dependent claim 5 in the
2 Appeal Brief or Reply Briefs (FF 9), claim 5 stands or falls together with the
3 base rejection and therefore the rejection of claim 5 is also sustained.

4 **E. Decision**

5 Upon consideration of the record, and for the reasons given, the
6 Examiner's rejection of claims 1 and 5 under 35 U.S.C. § 103(a) as being
7 unpatentable over Clegg is affirmed.

8 **No time period for taking any subsequent action in connection**
9 **with this appeal may be extended under 37 C.F.R. § 1.136(a).**

AFFIRMED

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