

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DIRK R. CHRISTENSEN
and MATTHEW CASTRIGNO

Appeal No. 2000-0258
Application No. 08/577,897

ON BRIEF

Before BARRETT, GROSS, and LEVY, Administrative Patent Judges.
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-14, which are all of the claims pending in this application.

invention can be derived from a reading of exemplary claim 1,
which is reproduced as follows:

1. In a data processing system that includes a number of system components and one or more redundant system components, a method for protecting the system components from transients that arise on a system interconnect during switching events, comprising:

the system components operating in a normal mode of operation;

detecting that a switching event, wherein a first redundant system component replaces a failed system component, is to occur;

indicating to the system components that the switching event is to occur; the system components entering a standby mode of operation wherein each of the system components isolate their circuitry from the system interconnect during the switching event by tri-stating respective interfaces to the system interconnect; and

the system components returning to the normal mode of operation in response to a triggering event.

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

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| Herrig et al. (Herrig) | 4,835,737 | May 30, 1989 |
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| Madonna et al. (Madonna) | 5,596,569 (effectively filed Mar. 8, 1994) | Jan. 21, 1997 |
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Claims 2-6 and 8-11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Herrig in view of Ady and Madonna.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 16, mailed March 12, 1999) for the examiner's complete reasoning in support of the rejections, and to appellants' brief (Paper No. 15, filed February 1, 1999) and reply brief (Paper No. 17, filed May 3, 1999) for appellants' arguments thereagainst. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of obviousness relied upon by

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 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 invention as set forth in claims 1-14. Accordingly, we reverse, essentially for the reasons set forth by appellants.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion

Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Appellants assert (brief, page 5) that "[e]ach of the present claims recite that, prior to a switching event, each of a number of system components of a data processing system isolate their circuitry from a system interconnect (e.g., by tri-stating an interface to the interconnect)." The examiner acknowledges

a teaching of "non-disruptively interconnecting peripheral device from the host device by disabling the communication bus from the system interconnects by tri-state buffers." (See answer, page 3)

We find that Herrig discloses inhibiting the operation of the bus in the period of time that a module is being inserted or removed from a connector connected to the bus, and reactivates the bus after the module has been inserted or removed. In the removal of a module from its associated connector, a switch on the module is operated to provide an inhibit signal to a control circuit which inhibits operation of the bus (col. 1, lines 46-53). The control circuit, in response to the inhibit signal, seizes control of the bus and halts the clock signals which control the operation of the bus, thus preventing any other circuits from seizing or transmitting data on the bus (col. 2, lines 5-9). This isolates the connected circuits from any transients which may occur on the bus during insertion or removal of a bus connected circuit board (col. 5, lines 1-4). Other circuits can continue to perform functions which do not require

find that in Herrig, the modules are isolated from the bus as a result of seizure of the bus by the control circuit and halting of the clock signals which control the operation of the bus.

Ady discloses (col. 5, lines 30-36) that "[a]lternatively, the computer bus 29 need not be disabled and enabled by the computer. Rather logic circuits, such as tri-state bi-directional buffers located directly on the card header 10 may enable and disable signals between the module 20 and the bus 29 in response to the switch 36, when the module is inserted and de-inserted." From the disclosure of Ady, we find that a module may be isolated from the computer bus 29 using tri-state bi-directional buffers, as an alternative to the computer bus 29 being disabled by the computer. Although Ady teaches that signals between the module 20 and the bus 29 are enabled and disabled in response to switch 36, we find no teaching or suggestion of having each of the modules isolate their circuitry from the computer bus, but rather find that only the tri-state bi-directional buffers located directly on the card header 10 of

suggestion to modify each of the remaining system components to also isolate its circuitry from the system interconnect as required by each of the independent claims. To find that each of the modules isolates its circuitry we would have to resort to speculation, which we decline to do. The examiner may not resort to speculation or unfounded assumptions to supply deficiencies in establishing a factual basis. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967). From all of the above, find that the examiner has failed to establish a prima facie case of obviousness of the claimed invention recited in independent claims 1, 7, and 12. Accordingly, the rejection of claims 1, 7, and 12-14 under 35 U.S.C. § 103(a) is reversed.

We turn next to the rejection of claims 2-6 and 8-11 under 35 U.S.C. § 103(a) as unpatentable over Herrig in view of Ady and Madonna. Upon review of the teachings of Madonna, we reverse the rejection of claims 2-6 and 8-11 under 35 U.S.C. § 103(a) because Madonna does not make up for the deficiencies of the basic combination of Herrig and Ady.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-14 under 35 U.S.C. § 103(a) is reversed.

REVERSED

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| LEE E. BARRETT |) | |
| Administrative Patent Judge |) | |
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| |) | BOARD OF PATENT |
| ANITA PELLMAN GROSS |) | APPEALS |
| Administrative Patent Judge |) | AND |
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| STUART S. LEVY |) | |
| Administrative Patent Judge |) | |

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