

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. ¹⁰⁴103

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES



Ex parte TRANSLOGIC TECHNOLOGY, INC.

Appeal No. 2005-1050
Reexamination Control Nos. 90/005,384,
90/005,823, 90/005,881, 90/006,051,
and 90/006,392

HEARD: May 31, 2005

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

DECISION ON REQUEST FOR REHEARING

Appellant filed a Request for Rehearing Under 37 C.F.R. § 41.52 on September 13, 2005, for rehearing of our original decision entered July 14, 2005.

The request for rehearing has been considered but is denied with respect to making any modifications in our decision.

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ERRATUM

In our original decision, the page numbers in Appendix B mistakenly start with page 2. There is no page 1 in Appendix B.

ABBREVIATIONS

Pages of the request for rehearing are referred to as "RR__." Pages of the original decision are referred to as "D__." Pages of the brief and reply brief to the Board are referred to as "Br__" and "RBr__," respectively. Pages of the examiner's answer are referred to as "EA__."

DISCUSSION

Patent owner Translogic Technology, Inc. (TTI) argues that our decision raises new grounds of rejection for three reasons: (1) it introduces a new claim construction to which patent owner has no opportunity to respond; (2) it introduces new factual assertions concerning complex technology; and (3) it proposes a new ground of rejection using the Toshiba MUX8 reference (RR2). "TTI requests a full opportunity to address the new claim construction, the new factual assertions, and the new ground of rejection in the customary manner - in examination, so that these reexaminations can be brought to a timely conclusion." (RR5.) Thus, although not expressly stated, patent owner seeks for us to denominate our decision as containing a new ground of rejection under 37 C.F.R. § 41.50(b) (2004) so that prosecution may be

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reopened before the examiner under § 41.50(b)(1).¹

When an examiner rejects a claim as failing to meet one or more of the statutory requirements for patentability, procedural due process and 35 U.S.C. § 132 of the patent statute require that applicants be adequately notified of the reasons for the rejection of claims so that they can decide how to proceed. See In re Ludtke, 441 F.2d 660, 662, 169 USPQ 563, 565 (CCPA 1971). See also In re De Blauwe, 736 F.2d 699, 706, 222 USPQ 191, 197 (Fed. Cir. 1984) (remanding case to Patent and Trademark Office (PTO) because of failure to notify appellants that there was no objective evidence to support appellants' arguments). A patent applicant must have the opportunity to respond to new grounds for claim rejections put forth by the Board of Patent Appeals and Interferences (Board). See In re Weymouth, 486 F.2d 1058, 1061, 179 USPQ 627, 629 (CCPA 1973) ("To attempt to deny appellants an opportunity to provide a different and appropriate response to the board's [new] rejection ... does not satisfy the administrative due process established by Rule 196(b) of the Patent Office."). Rule 196(b) refers to 37 C.F.R. § 1.196(b), superseded by 37 C.F.R. § 41.50(b) (2004). A new rejection may

¹ Although § 41.50(b) also permits an appellant the option of arguing the merits of a new ground of rejection in a request for rehearing, § 41.50(b)(2), since patent owner has not argued the merits of the alleged new grounds of rejection in the request for rehearing we presume it would elect further prosecution before the patent examiner.

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occur where the examiner and board reject a claim for different reasons. Waymouth, 486 F.2d at 1060-61, 179 USPQ at 629 (new ground of rejection where "the bases of [the examiner's and Board's] rejection were wholly different, necessitating different responses by appellants."). The Board's new findings and reasons must be material to the rejection to create a new ground of rejection. See In re Kumar, 418 F.3d 1361, 1368, 76 USPQ2d 1048, 1052 (Fed. Cir. 2005) ("When a rejection for obviousness is based on overlapping values in the prior art, identification of the values deemed to overlap is material to the rejection. In this case the overlapping values were identified for the first time in the decision of the Board, and are not themselves set forth in Rostoker or any other reference. In calculating the overlapping values, the Board found facts not found by the examiner regarding differences between the prior art and the claimed invention, which in fairness required an opportunity for response."). A rejection is not based on new grounds if "appellants have had fair opportunity to react to the thrust of the rejection." In re Kronig, 539 F.2d 1300, 1302, 190 USPQ 425, 426 (CCPA 1976); id. at 1303, 190 USPQ at 427 (finding that an applicant had fair opportunity to challenge a rejection because "[t]he basic thrust of the rejection at the examiner and board level was the same").

We have considered patent owner's arguments, but are not persuaded that our decision presented any new grounds of

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rejection. Accordingly, we will not denominate our decision as containing a new ground of rejection under 37 C.F.R. § 41.50(b) or otherwise modify our original decision.

(1) Claim interpretation

Patent owner argues that "[t]he decision introduces a claim construction that differs from the claim construction adopted by the Examiner" (RR2) and "[b]y newly construing the claims, the Decision effectively offers a new series of rejections, without providing opportunity to argue, amend or cancel claims, or submit evidence in view of this new claim construction" (RR3).

A new ground of rejection, by definition, is a rejection which is new to the appellant. It is not a new ground of rejection where an appellant and the examiner expressly argue different claim interpretations and the Board sides with the appellant or the examiner because in that case the appellant has actually argued the claim interpretation. Thus, where the Board adopts the patent owner's argued claim interpretation, it is not a new ground of rejection even though the interpretation is different from the examiner's interpretation. It should also go without saying that a claim interpretation that is not material to the rejection does not raise a new ground of rejection. Patent owner alleges that certain claim interpretations are new or different from those stated by the examiner without mentioning

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that it addressed the claim interpretations in its briefs to the Board and without attempting to show how the claim interpretation affects the rejection to create a new rejection.

(i)

Patent owner argues that "for the first time, a construction of 'coupled to receive' is offered. Decision at 11." (RR2).

This is not a new claim interpretation. The claim interpretation issue in the limitations of a "signal input terminal coupled to receive [first, second, third, fourth, or fifth] input variable" and a "control input terminal coupled to receive a [first, second, third, or fourth] control signal" is whether the terminals must be actually coupled to input variables or control signals or just capable of receiving these signals, i.e., whether the input variables and control signals are part of the claimed combination. The examiner concluded that the "input signals cannot be relied upon to patentably distinguish the claims over the combined prior art because the claims are directed to an apparatus, and the input signals are not part of this apparatus (i.e., they are merely intended use)" (EA10-11). Patent owner expressly agreed with this interpretation (repeating the quoted language and stating "Patentee agrees" (RBr14)) and, so, responded to the examiner's interpretation. Therefore, our claim interpretation is not new, but just memorializes this

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agreed upon interpretation that the limitation of a "signal input terminal coupled to receive [first, second, third, fourth, or fifth] input variable" refers to the structure of a "[t]erminal capable of receiving an input variable" (D11). "That is, the 'input variable' itself is not part of the claimed combination and these limitations are anticipated by an input terminal structure without it having to be actually connected to an input variable signal." (D11.) Similarly, the limitation of a "control input terminal coupled to receive a [first, second, third, or fourth] control signal" refers to a "[t]erminal capable of receiving a control signal. The control signal itself is not part of the claimed structure." (D10.) This is not a new claim interpretation and does not present a new ground of rejection.

(ii)

Patent owner argues (RR2):

[T]he Decision construes first, second, and third control signals to be independent and unique. Decision at 10. In contrast the Examiner's Answer states that the claims do not recite three different control signals. Examiner's Answer at 10.

To explain the claim interpretation issue, we begin with the arguments. In the brief, patent owner argued (Br11):

The claimed 4:1 multiplexer circuits have three stages with four signal input terminals and three control input terminals coupled to receive four different input variables and three different control signals, respectively. The claimed 5:1 multiplexer circuits have four stages with five signal input terminals and four control input terminals

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coupled to receive five different input variables and four different control signals, respectively.

The examiner correctly stated that "nowhere do the claims recite 'four different input variables', 'three different control signals', etc." (emphasis added) (EA10), but "that even if such terminology were set forth in the appealed claims, the obviousness rejection based on Gorai would still be proper, as all of the input variables and control inputs of the Fig. 3 circuit are indeed different from each other" (EA10).

Our claim interpretation stated that the claimed first, second, third, fourth, and fifth "input variables" do not require five different input variables, or that the "input variables" are different from the first, second, third, and fourth "control signals" (D11-12). We further stated that "[i]n any case, since the input variables are not part of the claimed structure, the nature of the input variables is not a positive claim limitation" (D12). This claim interpretation is not contested.

The examiner correctly interpreted the claims to not expressly require the first, second, third, and fourth "control signals" to be different. We stated (D10): "In a multiplexer circuit, these control signals are unique and independent of each other. However, the actual control signals are not part of the claimed multiplexer structure." Thus, we found that the control signals in a multiplexer are inherently different from each other

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even though not expressly recited in the claims. There are several reasons why this is not a new ground of rejection. First, the "control signals" are not part of the claimed multiplexer structure (D10), and the control input terminal only needs to be "capable of receiving a control signal" (D10), so the interpretation that the control signals are independent of each other does not affect the rejection and does not raise a new ground of rejection. Second, the claim interpretation is in patent owner's favor and does not require any argument or amendment to rebut, so it is difficult to see how patent owner can reasonably consider it to be a new ground of rejection requiring reopening of prosecution. Third, the claim interpretation is consistent with patent owner's express arguments that the claims require different "input variables" and "control variables" (see discussion of argument (3), D50-62), so it is not a new ground of rejection to patent owner. Fourth, the examiner noted that even if the word "different" was in the claims, Fig. 3 of Gorai teaches "different" control signals and input variables and, therefore, the examiner's rejection addressed the claim interpretation argued by patent owner. This claim interpretation does not present a new ground of rejection.

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(iii)

Patent owner argues (RR2-3):

The Decision further states that a variable and its logical complements are the same variable. Decision at 68. In contrast, the Examiner's Answer states that a variable and its logical complement are different variables. Examiner's Answer at 9 (stating that D and /D are first and second input variables).

Our decision agreed with patent owner's statement that a variable and its logical complement are the same variable. More precisely, we stated that a variable and its complement represent different states of the same variable (D68) since a variable and its complement are not the same thing. Since patent owner expressly argued the interpretation of "variable," the claim interpretation is not a new ground of rejection to patent owner.

Furthermore, the examiner did not interpret a variable and its logical complement to be the same variable, so our interpretation is not inconsistent with the examiner's. What the examiner actually stated was that "[f]irst and second input variables D and /D are applied to the inputs of a first 2:1 multiplexer stage" (EA9), which patent owner argues to be a statement that a variable and its complement are the same variable. Patent owner's argument that the examiner interpreted a variable and its complement to be the same logical variable is only true if one reads in an implied limitation that the first, second, third, and fourth input variables in claim 47 are

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different, and then reasons that because the D and /D (D complement, also written as \bar{D}) represent the same variable, they cannot be first and second different input variables. As noted in Section (1)(ii), supra, the examiner correctly concluded that the claims do not require the input variables to be different from each other (EA10) and we agreed with that claim interpretation (D11-12). Since the claims do not require the input variables to be different, the examiner merely stated that the first and second input variables were D and /D, not that D and /D are the same variable as argued by patent owner.

Still another reason why our statement that a variable and its logical complement represent different states of the same variable does not raise a new ground of rejection is because the "input variables" and the "control signals" are not part of the claimed combination and do not affect the rejection. Patent owner agrees that the "input variables" and "control signals" are not part of the claimed combination and the limitations of a "signal input terminal coupled to receive [first, second, third, fourth, or fifth] input variable" and a "control input terminal coupled to receive a [first, second, third, or fourth] control signal" are met by terminals capable of receiving these input variables and control signals (D11; D10). The examiner's rejection expressly found that Gorai and Tosser have terminals capable of receiving input variables and control signals.

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(iv)

Patent owner argues (RR3):

The Decision also adopts a new construction of the term "input variable." According to the Decision, a variable "must be capable of assuming, at any given time, either one of at least two values." Decision at 10 (citing Claim Construction attached to the Order of May 12, 2005 in Translogic Technology, Inc. v. Hitachi, Ltd.). In contrast, the Examiner's Answer states that all input signals are "'input variables' regardless of whether they are set to a constant value." Examiner's Answer at 15.

Patent owner argued the constant inputs (0, 1) to the three-stage cascade of Fig. 6 of Gorai "are constants, and thus cannot correspond to recited input variables" (Br14). The examiner responded (EA15-16):

This argument is also without merit because clearly all of the nine input signals shown in Gorai's Fig. 3 can be interpreted as "input variables" (indeed it is the reason that Gorai uses alphanumeric designations for the different input signals). Moreover, these input signals are all "input variables" regardless of whether or not they are set to a constant value, or set to time-varying values (again note that the claims are being construed using the broadest reasonable interpretation test). The argument that an "input variable" cannot be a constant value is not correct (as just one example, note the well-known equation $F=ma$, where the terms can of course be interpreted as "input variables" even when they are equal to constant values).

Patent owner argued that the examiner errs in stating that input signals are all "input variables" regardless of whether or not they are set to a constant value because a constant (0 or 1) is not a variable (RBr16-17).

The examiner properly found that Fig. 3 of Gorai teaches that all multiplexer inputs can be "variables." This is the

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rejection to be reviewed. Our decision agreed with patent owner that a constant (0 or 1) is not a variable and stated that "[a] variable must be capable of assuming, at any given time, either one of at least two values (0 or 1), whereas a constant has a fixed value" (D69), although we noted that the examiner's statement that a constant could be considered an input variable is not without support (D10-11). Since patent owner expressly argued the claim interpretation, our agreement with patent owner's claim interpretation does not raise a new ground of rejection to patent owner. In addition, our decision stated that "since the input signals are not part of the claimed structure, it does not matter whether the inputs are variables or constant as long as the multiplexer is capable of handling variables" (D70), so the claim interpretation does not affect the rejection and does raise a new ground of rejection. The rejection is based on the finding that the structures in Gorai and Tosser are capable of receiving variables at their input terminals. This claim interpretation does not present a new ground of rejection.

(v)

Patent owner argues (RR3):

Based on this new claim construction, the Decision notes (in additional comments) that all pending claims may be unpatentable in view of the conventional multiplexer circuit shown in the Toshiba TC19G000 Series, MUX8 Macrocell Data Sheet (the Toshiba MUX8 reference). Decision at 76-78. The Toshiba MUX8 circuit is described in the background

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section of the '666 patent at col. 1, lines 27-34, and the claimed multiplexer circuits are specifically distinguished from such a conventional multiplexer at col. 2, lines 3-7. A claim construction that captures prior art specifically distinguished in the patent is manifestly unreasonable. Whether the construction proposed in the Decision mandates such an unreasonable result should be decided, not merely flagged as a possibility, as it would either be grounds to change the construction, or a new ground of rejection which should be remanded for further action by the examiner and response by the patentee.

As discussed in Section (3), infra, the additional comments of APJ Barrett are not the decision of the Board and, therefore, do not raise a new ground of rejection. Accordingly, the arguments regarding the Toshiba MUX8 are not considered.

(2) Factual assertions

Patent owner argues (RR3-4):

The Decision includes extensive assertions concerning various aspects of logic design such as those provided at, for example, Appendices B-C. The Decision attempts to support these assertions by, for example, stating that they are "self-evident to any computer scientist or electrical engineer who has taken an undergraduate computer science course in switching theory and the design of digital logic circuits." Decision at B-2. The Decision thus apparently relies either on the Panel's own technical background or the taking of Official Notice for such assertions. Both are improper. While the U.S. Patent and Trademark Office (PTO) is accorded expertise in patent examination, the PTO is not deemed to have expertise in technology. Sandvik Aktiebolag v. Samuels, [not reported in F. Supp, 1991 WL 25774], 20 USPQ 1879 at 1880 (D.D.C. 1991) (noting the Commissioner's need for "true experts"). Official Notice is also improper. "Official Notice unsupported by documentation should be taken only ... where the facts asserted to be well-known ... are capable of instant and unquestionable demonstration." MPEP, 8th Ed. § 2144.03 at 2100-136. In addition, "technical facts in the areas of esoteric technology ... must always be supported by citation

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to some reference work." Id. (citing In re Ahlert and Kruger, 424 F.2d at 1091, 165 USPQ 418 at 420-21 (C.C.P.A. 1970)). Even if introduction of these factual assertions were proper, Patentee has no opportunity to respond.

The appendices A-C merely provide technical background to aid the reader's understanding of the Gorai and Tosser references and do not add any facts or reasons that are necessary to or relied upon in the rejection. For example, Appendix A explains what is meant by Gorai's statement that "an $M(p)$ can realize any function of $(p+1)$ variables" (page 164) to provide a complete technical answer to appellant's erroneous argument that the statement means that a series of 2:1 multiplexers with p control input inputs can realize functions of at most $(p+1)$ variables (D15-16; D54). However, Appendix A is not necessary to or relied upon in the rejection itself. Appendix B provides a definition of terminology used in Gorai and Tosser and is not necessary to or relied upon in the rejection. If the reader prefers to rely on her or his own knowledge or research to determine what is meant, she or he is free to do so. Appendix C explains how the examples in Gorai use multiplexers to realize logic functions and is not necessary to or relied upon in the rejection. We could have left it to the reader's knowledge or ability to find out or develop this background information himself or herself, but since we are aware that most judges do not have technical backgrounds

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in computer science and the design of digital logic circuits, we thought a background explanation would be helpful. The addition of explanatory background material does not change the rejection and does not raise a new ground of rejection.

As to patent owner's argument that "[w]hile the U.S. Patent and Trademark Office (PTO) is accorded expertise in patent examination, the PTO is not deemed to have expertise in technology" (RR4), we note that Judge Oberdorfer said the "while patent examiners are experts in reviewing patent applications in particular fields, they do not have actual experience in the technology," Sandvik v. Samuels, 1991 WL 25774, 20 USPQ2d at 1880. Thus, Judge Oberdorfer stated that examiner are experts in their particular fields, but do not have "actual experience": he did not say that examiners do not have "expertise." Also, "administrative patent judges shall be persons of competent legal knowledge and scientific ability." 35 U.S.C. § 6(a). Although the Director retains outside experts (at plaintiff's expense) in civil actions under 35 U.S.C. § 145, this does not imply that the Board lacks technical expertise. In any case, the appendices merely provide technical background and are not relied upon in the rejections, so they do not raise a new ground of rejection.

As to patent owner's arguments about Official Notice, this is not a situation where the Board has relied upon Official Notice for some fact relied upon in the rejection. The

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examiner's rejection is not changed in any way by the appendices and they do not raise a new ground of rejection.

(3) Additional comments in the decision

Appellant argues that the additional remarks to the decision introduce a new ground of rejection (RR4):

According to additional remarks in the Decision, the conventional multiplexer circuit shown in the Toshiba MUX8 reference that was considered in the original prosecution of the '666 patent renders all pending claims unpatentable. The additional remarks note that the Panel did not "want to raise any new question of a new ground of rejection in the main opinion." Decision at 76. As best understood by patentee, according to the Panel, all pending claims may be unpatentable in view of the Toshiba MUX8 reference with at least one Panel member concluding that they are unpatentable. If this is a potential new ground of rejection it should be fully addressed whether or not the Panel "wants" to raise it. If this is not a new ground of rejection, then, according to the Panel as a whole, all pending claims are patentable in view of the Toshiba MUX8 reference, and any subsequent request for reexamination based on the Toshiba MUX8 reference would not raise a substantial new question of patentability, and would not be granted. In any case, introduction of this "new" ground of rejection at this stage of examination effectively denies TTI the opportunity to respond. The issue should be decided after full examination, not merely flagged for possible future action after the patentee prevails on appeal.

The additional comments of APJ Barrett (D76-78) do not constitute the decision of the Board, just as a dissenting or concurring opinion by an appeals court judge does not represent the decision of the court. Therefore, the additional comments of APJ Barrett do not raise ground of rejection and are not subject to judicial review. The opinion was modeled after SSIH Equip.

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S.A. v. United States Int'l Trade Comm'n, 718 F.2d 365,
218 USPQ 678 (Fed. Cir. 1983) (Nies, J., authoring the opinion
and providing additional comments). Two APJs agree with the
opinion up to the page with their signatures: this is the
decision of the Board that is subject to judicial review.
APJ Barrett agrees with the first portion of the opinion (since
he authored it) and expresses additional views. The additional
views of one APJ that a rejection would be appropriate does not
constitute a new ground of rejection because one APJ alone cannot
enter a new ground of rejection. The Board is not required to
raise all potential new grounds of rejection, especially where,
as here, the examiner's rejections are affirmed. The fact that
the additional comments do not constitute a new ground of
rejection does not in any way imply that the claims are
patentable over the Toshiba MUX8 reference.

CONCLUSION

Patent owner's request for rehearing has been considered,
but we are not persuaded that our decision presented any new
grounds of rejection. Accordingly, the request for rehearing is
denied with respect to making any modifications in our decision
or denominating our decision as containing a new ground of
rejection under 37 C.F.R. § 41.50(b).

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No time period for taking any subsequent action in
connection with this appeal may be extended under 37 C.F.R.
§ 1.136(a)(1). See 37 C.F.R. § 1.136(a)(1)(iv).

DENIED

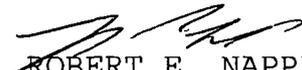


ERROL A. KRASS)
Administrative Patent Judge)



LEE E. BARRETT)
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) BOARD OF PATENT
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ROBERT E. NAPPI)
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