

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAKOB NIELSEN, BRUCE TOGNAZZINI and BOB GLASS

Appeal No. 2001-0338
Application No. 08/932,953

ON BRIEF

Before HAIRSTON, FLEMING, and GROSS, ***Administrative Patent Judges.***

FLEMING, ***Administrative Patent Judge.***

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 5-13, 17-19 and 21-23.

Claims 1-4, 16, 20 and 24 have been canceled.

Claims 14 and 15 stand objected to by the Examiner as dependent upon rejected claims with an indication that these claims would be allowable if they were rewritten in independent form.

The invention relates to controlling power consumption in the use of computer displays. See page 1 of Appellants' specification. In the context of a computer display, the prior

art has failed to adequately address the need for controlling power consumption. In particular, power is certainly wasted if no one is looking at the display. See page 3 of Appellants' specification.

The invention is directed to a display which includes controls that gradually reduce the intensity when the user looks away from the display. See page 5 of Appellants' specification. Figure 2A is an illustration of a computer which is selectively battery powered. An eyetracker sensor is 230 positioned so as to be able to view the user's eyes. Figure 2B is a block diagram of the internal hardware of the computer of Figure 2A. See page 12 of Appellants' specification. An eyetracker 290 is interfaced to the bus over the interface 289 and provides information for control of the power. See page 13 of Appellants' specification. A separate control line 276 is shown between the display interface 275 and the display 220. This line is utilized to control the intensity of illumination of images on the surface of the display. It effectively serves as a power control for the display device. See page 14 of Appellants' specification.

Figure 6 is a flow chart of a power control process. The eyetracker outputs are processed to distinguish four conditions, one condition is whether the eyes of the user move off the

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screen. In this condition, when the eyes move from the screen to a point off the screen, a time interval of, preferably, 1/10 of a second (625) is set. If that time expires without the eyes returning to the screen, the screen will slowly fade the display intensity to black (626).

Claim 5 present in the application is reproduced as follows:

5. A computing device comprising:
 - a. a processor;
 - b. a display having a controllable intensity connected to said processor;
 - c. an eyetracker providing a signal indicating where a user's eyes are looking to said processor; and
 - d. a control for changing intensity of said display based on said signal.

REFERENCES

The references relied on by the Examiner are as follows:

Oyagi et al.	4,713,659	Dec. 15, 1987
Schoolman	5,281,957	Jan. 25, 1994
Ninomiya et al.	5,532,935	Jul. 2, 1996
Tonosaki	5,635,948	Jun. 3, 1997

Claims 5-7, 9-12, 17, 21 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman and Tonosaki.

Claims 8, 18, 19 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman, Tonosaki and Ninomiya.

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Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman, Tonosaki and Oyagi.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

With full consideration being given the subject matter on appeal, the Examiner's rejections and the arguments of Appellants and the Examiner, for reasons stated *infra*, we affirm the Examiner's rejection of claims 5-13, 17-19 and 21-23 under 35 U.S.C. § 103.

**A. Rejection of Claims 5-7, 9-12, 17, 21 and 23
Under 35 U.S.C. § 103**

At the outset, we note that Appellants state on page 4 of the brief that claim 23 stands or falls with claim 21 and each of the other claims are argued separately. We note that claim 5 is argued separately on pages 6 through 9 of the brief. However, the same arguments for claim 5 are repeated for claims 6, 7, 9 through 12, 17 and 21 on pages 9 and 11 of the brief.

37 CFR § 1.192 (c) (7) (July 1, 1998) **as amended at** 62 Fed. Reg. 53196 (October 10, 1997), which was controlling at the time of Appellants' filing the brief, states:

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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.

We will, thereby, consider the Appellants' claims as standing or falling together and we will treat claim 5 as a representative claim of that group. **See also In re McDaniel**, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) ("If the brief fails to meet either requirement [of 35 CFR § 1.192(c)(7)] the Board is free to select a single claim for each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.")

We now turn to the Examiner's rejection of claim 5. In rejecting a claim 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 USPQ 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

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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 USPQ 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 reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and arguments." ***In re 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 these principles in mind, we will review Appellants' arguments. Appellants argue that Tonosaki does not teach or suggest Appellants' "changing intensity" as set forth in

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Appellants' claim 5 because Tonosaki only teaches turning off the power to the display, and not to vary its intensity. See pages 6 and 7 of Appellants' brief.

In response, the Examiner argues that Tonosaki does teach a controller (10) for varying the intensity level of the display. The Examiner points us to column 7, lines 1-17 of Tonosaki.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). "[T]he terms used in the claims bear a "heavy presumption" that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1201-02, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002). "Moreover, the intrinsic record also must be examined in every case to determine whether the presumption of ordinary and customary meaning is rebutted." (citation omitted). "Indeed, the intrinsic record may show that the specification uses the words in a manner clearly inconsistent with the ordinary meaning reflected, for example, in a dictionary definition. In such a case, the inconsistent dictionary definition must be rejected." *Texas Digital Systems, Inc. v. Telegenix, Inc.*,

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308 F.3d 1193, 1204, 64 USPQ2d 1812, 1819. ("[A] common meaning, such as one expressed in a relevant dictionary, that flies in the face of the patent disclosure is undeserving of fealty."); **Texas Digital Systems, Inc. v. Telegenix, Inc.**, 308 F.3d at 1204, 64 USPQ2d at 1819 (Fed. Cir. 2002) (*citing Liebscher v. Boothroyd*, 258 F.2d 948, 951, 119 USPQ 133, 135 (CCPA 1958)).

We note that claim 5 recites

"a display having a controllable intensity connected to said processor . . . a control for changing intensity of said display based on said signal."

From the plain language of the claim, Appellants have not claimed varying intensity but instead claimed changing intensity. Thus, the broadest reasonable interpretation of the claim would read on a situation in which a screen that is displaying a picture to a screen that is black. In fact, this is consistent with Appellants' own specification. On page 16 of the specification, Appellants state that the change of intensity is simply slowly fading the display intensity to black.

Tonosaki teaches several embodiments. The embodiment which is relied on by the Examiner is embodiment 2 set forth in column 6, line 38, to column 7 line 17. In this embodiment, Tonosaki teaches a display using liquid crystals. Tonosaki teaches that it is important not to turn the power off completely to the

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liquid crystal. See column 7, lines 3-10. Tonosaki teaches that after the liquid crystal display is determined to be placed in a power saving mode because the viewer is sleeping, the power to the liquid crystal display is lowered thus saving the dissipating power. See column 7, lines 10-17. One of ordinary skill in the art would readily understand that Tonosaki is teaching varying the power to the liquid crystal display such that the liquid crystal display would go from a full display intensity to fading to black. Therefore, we find that Tonosaki teaches "a control for changing intensity of said display" as recited in Appellants' claim 5.

Appellants further argue that Tonosaki does not teach or suggest Appellants' "changing intensity . . . based on . . . said signal [indicating where a user's eyes are looking]" because Tonosaki only teaches the use of a signal indicating whether the users eyes are open. See pages 7 and 8 of the brief.

We note that Appellants' claim 5 recites

"an eyetracker providing a signal indicating where a user's eyes are looking to said processor; and a control for changing intensity of said display based on said signal."

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Therefore, we agree that Appellants' claim 5 does require an eyetracker to provide a signal to indicate where the user's eyes are looking.

Tonosaki teaches several embodiments, one embodiment does indeed teach detecting whether the user's eyes are open or closed. However, another embodiment teaches use of eyetrackers to indicate where a user's eyes are looking to. In particular, Tonosaki teaches in column 4, lines 9-15 that the visual axis detection means 15, 16 in the present embodiment employs a method of detecting the visual axis, for example, as disclosed in Japanese Laid-open Patent Application No. 4-138431, in which infrared light is projected into the eyeball of the information viewer and reflected light by the cornea thereof is detected, thereby detecting the visual axis. Thus, Tonosaki is teaching the use of "an eyetracker providing a signal indicating where a user's eyes are looking to said processor; and a control for changing intensity of said display based on said signal" as recited in Appellants' claim 5. We agree that Tonosaki also teaches another embodiment in which you would not have to use sophisticated equipment in which you do not have to detect the visual axis but you could simply detect whether the eyes are open or closed. See column 4, lines 15-17 of Tonosaki. However, this

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teaching is just simply an alternate embodiment and does not teach away from the first embodiment which we pointed out above.

Appellants have not made any other arguments as to claims 5-7, 9-12, 21 and 23. 37 CFR § 1.192(a) states:

Appellant must, within two months from the date of the notice of appeal under § 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate. The brief must be accompanied by the fee set forth in § 1.117(c) and must set forth the authorities and arguments on which appellant will reply to maintain the appeal. Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown.

Thus, 37 CFR § 1.192 provides that only the arguments made by Appellants in the brief will be considered and that failure to make an argument constitutes a waiver on that particular point. Support for this rule has been demonstrated by our reviewing court in *In re Berger*, 279 F.3d 975, 984, 61 USPQ2d 1523, 1528-29 (Fed. Cir. 2002), wherein the Federal Circuit Court stated that because the Appellant did not contest the merits of the rejections in his brief to the Federal court, the issue is waived.

B. Rejection of Claims 8, 18, 19 and 22 Under 35 U.S.C. § 103

Claims 8, 18, 19 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman, Tonosaki and Ninomiya. We

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note that Appellants have argued these claims as a single group on pages 11-14. We will thereby treat claim 8 as the representative claim for this group.

Appellants point out that claim 8 recites "reduces said intensity gradually." Appellants argue that the combination of Schoolman, Tonosaki and Ninomiya does not teach this limitation. See page 12 of the brief.

In response, the Examiner shows that Ninomiya reduces the intensity level of a display by 5% of the brightness in each waiting period. The Examiner points to column 9, lines 47-62.

Upon our review of Ninomiya, we find that Ninomiya does indeed teach "control that reduces said intensity gradually" as recited in Appellants' claim 8. We find that Ninomiya teaches that the reduced brightness level means a level to which the brightness is lowered after each waiting period by 5%. See column 9, lines 47-67. We find that the lowering by 5% steps meets the claimed limitation of gradually reducing the intensity. We note that the broadest reasonable interpretation of this language does not require an analog reduction but could be done with small incremental steps as taught by Ninomiya.

Appellants argue that the Examiner does not provide a proper reason to combine the references. Appellants argue that the

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Examiner's reason to combine the references is to avoid abrupt changes in the display intensity. Appellants' specification teaches that reduction should be gradual to avoid abrupt changes that distract the user from other activity the user is performing. Appellants argue that the Examiner's reason is relying on impermissible hindsight provided by the Appellants' specification.

When determining obviousness, "[t]he factual inquiry whether to combine references must be thorough and searching." ***In re Lee***, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002), ***citing McGinley v. Franklin Sports, Inc.***, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). "It must be based on objective evidence of record" ***Id.*** "Board conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" ***In re Dembiczak***, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617. "Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact." ***Dembiczak***, 175 at 999, 50 USPQ2d at 1617, ***citing McElmurry v. Arkansas Power & Light Co.***, 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

Ninomiya teaches that when there is no input to the keyboard 27 for a predetermined time period, the BIOS supplies the PSC 37 with a signal indicating this, and the PSC 37 controls the back light device 47 so as to lower the level of the brightness of the fluorescent tube. The function for lowering the level of the brightness of the display device under certain conditions will be hereinafter called a "display auto-off function." See column 4, lines 1-14 of Ninomiya. Ninomiya teaches that the display device in its embodiment is a LCD 35 which is a liquid crystal device. A back light device 47 is mounted on the reverse side of the LCD 35. The display controller 33 is connected to the system bus 17. See column 3, lines 30 -37 of Ninomiya. Ninomiya further teaches that Figure 3a shows part of the power saving menu. If the user wants to effect the display auto-off function, he can change the display auto-off items so that the waiting time periods can be one of the following 3, 5, 10, 15, 20 and 30 minutes. If, when data indicative of a predetermined time period is input in the display auto-off item, the user does not perform the key operation until the set waiting time, the level of brightness of the back light 47 is automatically lowered by the predetermined value. See column 6, lines 15-47 of Ninomiya. Furthermore, as pointed out above, in column 9, lines 47-67, Ninomiya teaches

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that for each of these periods, the brightness level of the back light is reduced by 5%. Ninomiya teaches that the object of the invention is to provide an electronic device capable of automatically controlling the brightness level of the display device employed in accordance with the operating time periods designated by the user. See column 1, lines 55-60. Furthermore, Ninomiya teaches that another object of the invention is to provide an electronic device capable of automatically controlling the power consumption of each component in accordance with the operating time period designated by the user. See column 1, lines 50-55.

Thus, Ninomiya teaches to those skilled in the art that it would be advantageous to allow the user to control the power-saving functions. One of these options that the user is allowed to control is the amount of time it takes to gradually lower the intensity of the display device in a power-saving mode. Ninomiya teaches the concept that the user is able to customize the user's computer to suit the user's needs. Therefore, we find that one of ordinary skill in the art would have reason to combine Ninomiya with Tonosaki and Schoolman so as to allow the user of the combination proposed by the Examiner to customize the user's computer for his or her own needs. Therefore, we find that the

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Examiner has met the substantial evidence rule of providing an objective finding that one of ordinary skill in the art would have made the combination.

C. Rejection of Claim 13 under 35 U.S.C. § 103

Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman, Tonosaki and Oyagi. Appellants point out that claim 13 recites "power to the eyetracker is removed when the user has not looked at the display." Appellants argue that while Oyagi teaches turning off the sensor when the display is not being used, Oyagi teaches away from removing the power from an eyetracker.

Oyagi teaches a pager that has a display using liquid crystals and a sensor to sense the external luminance so that the display can be automatically illuminated when the external luminance has decreased. See column 2, lines 12-17 of Oyagi. Oyagi teaches a power saving operation of the display by not only turning off the display when not being used but also turning off the sensor that senses the external illuminates. See column 5, lines 3-22.

The Examiner argues that it would have been obvious to those skilled in the art to use Oyagi's teaching to modify Schoolman's and Tonosaki's system to provide a controller to turn off the

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power to the eyetrackers. The Examiner argues that Oyagi's teaching of turning off the sensor would provide even more power savings.

Thus, we find that the Examiner is not relying on Oyagi for teachings of power savings by turning off sensors that are part of the display system. Therefore, for this reason, one of ordinary skill in the art would have modified Schoolman and Tonosaki to turn off the eyetrackers. Therefore, we do not agree with the Appellants that Oyagi would teach away from Appellants' claimed limitation recited in claim 13.

Appellants further argue that the combination is improper because the modification of Tonosaki suggested by the Examiner would defeat the purpose of Tonosaki. Upon our review of Tonosaki, we find nothing that would suggest that a controller for turning off the eye sensors when it is determined that the display is no longer needed would defeat the Tonosaki invention. To the contrary, we find that the proposed combination by the Examiner would further provide additional power savings and would only enhance the Tonosaki invention.

In view of the foregoing, we have sustained the Examiner's rejection of claims 5-13, 17-19 and 21-23.

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

AFFIRMED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
MICHAEL R. FLEMING)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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