

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. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES W. STEARNS

Appeal No. 2002-1646
Application No. 09/440,233

ON BRIEF

Before THOMAS, KRASS, and RUGGIERO, Administrative Patent Judges.
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-22, which are all of the claims pending in the present application.

The claimed invention relates to a method for converting digitized image pixel values from an input dynamic range to an output dynamic range for eventual display of an overall image. A lower limit of the relevant portion of the input data dynamic range is identified from a histogram representative of the number of

pixels having predetermined digital intensity values. A log-transformed histogram, which is used to determine a threshold value for the log-transformed image, is developed based on the input value histogram. An upper limit value of the relevant portion of the input data range is identified from the log-transformed histogram based on the determined threshold value. With the lower and upper limits of the useful portion of the input dynamic range determined, the pixel values are scaled from the input dynamic range to the second dynamic range.

Claim 1 is illustrative of the invention and reads as follows:

1. A method for converting digitized image pixel values from a first range to a second range, the method comprising the steps of:

(a) determining a lower limit value of a relevant portion of the first range based upon non-log transformed pixel values;

(b) generating an intensity histogram representative of pixel populations having specified intensities, and transforming the histogram to generate a log-transformed histogram;

(c) identifying a threshold value for an upper limit of log-transformed values from the log-transformed histogram;

(d) identifying a population of pixels having log-transformed values having a desired relationship to the threshold value;

(e) determining an upper limit value of the relevant portion of the first range based upon the identified population;

(f) converting the non-log transformed pixel values to converted values; and

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(g) transmitting information relating to an image associated with the pixel values or source thereof between a first location and a second location remote from the first location to provide remote services.

The Examiner relies on the following prior art:

Hara et al. (Hara)	4,950,894	Aug. 21, 1990
Haskin	5,005,126	Apr. 02, 1991
Shimura	5,060,081	Oct. 22, 1991
Kobayashi et al. (Kobayashi)	5,757,022	May 26, 1998

Claims 1-22 stand finally rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Kobayashi in view of Shimura and Haskin with respect to claims 1-7, 9-11, and 13-21, and adds Hara to the basic combination with respect to claims 8, 12, and 22.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Brief (Paper No. 8) and Answer (Paper No. 9) for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Brief along with the Examiner's rationale in support of the rejection 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 obviousness of the invention as set forth in claims 1-22. Accordingly, we reverse.

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 or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed.

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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).

With respect to independent claims 1, 9, and 15, Appellant's response to the obviousness rejection asserts a failure by the Examiner to establish a prima facie case of obviousness since proper motivation for the Examiner's proposed combination of references has not been set forth. After reviewing the arguments of record from Appellant and the Examiner, we are in general agreement with Appellant's position as stated in the Brief.

Our interpretation of the applied Kobayashi and Shimura references coincides with that of Appellant, i.e., in contrast to the claimed invention which requires a combination of log-transformed and non-log transformed data for image conversion, Kobayashi utilizes only non-log transform values while Shimura employs only log transform data. Given this deficiency in the disclosures of the applied prior art, we can find no teaching or suggestion, and the Examiner has pointed to none, as to how and in what manner the Kobayashi and Shimura references might have been combined to arrive at the claimed invention. The mere fact that the prior art may be modified in the manner suggested by the

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Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

It is also our view, that, even assuming, arguendo, that proper motivation were established for modifying Kobayashi with Shimura, there is no indication as to how such modification would address the particulars of the claim language of independent claims 1, 9, and 15. As discussed previously, each of claims 1, 9, and 15 sets forth a specific combination of non-log transform values and log-transform values which are employed in the conversion of image pixel values to output image pixel values over a desired output range. More particularly, the claims require that, after a lower limit value is determined from a first histogram of non-log transformed pixel values, the first histogram is transformed into a second histogram of log-transformed values from which an upper limit value is determined.

In our view, the proposed combination of Kobayashi and Shimura would, at best, result in the substitution of the log-transform processing techniques of Shimura for the non-log transform processing of Kobayashi, a result which falls far short of the specific combination set forth in the appealed claims. Given the factual situation presented to us, it is our opinion that any

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suggestion to make the combination suggested by the Examiner could only come from Appellant's own disclosure and not from any teachings or suggestions in the references themselves.

We have also reviewed the Haskin and Hara references, applied by the Examiner to address the remote location and threshold resetting features, respectively, of several of the appealed claims. We find nothing, however, in the disclosures of Haskin or Hara which would overcome the previously discussed deficiencies of Kobayashi and Shimura.

Accordingly, since we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the rejection of independent claims 1, 9, and 15,

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nor of claims 2-8, 10-14, and 16-22 dependent thereon. Therefore,
the decision of the Examiner rejecting claims 1-22 under 35 U.S.C.
§ 103(a) is reversed.

REVERSED

JAMES THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
ERROL A. KRASS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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