EXHIBIT L

IW 7293892

THE UNITED STATES OF AMERICA

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

May 09, 2011

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APPLICATION NUMBER: *11/677,958*
FILING DATE: *February 22, 2007*
PATENT NUMBER: *7,812,828*
ISSUE DATE: *October 12, 2010*

By Authority of the
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office

M. Tarver

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Certifying Officer

CLAIMS

What is claimed is:

1. A method of processing input from a touch-sensitive surface, the method comprising:
   receiving at least one proximity image representing a scan of a plurality of electrodes of the touch-sensitive surface;
   segmenting each proximity image into one or more pixel groups that indicate significant proximity, each pixel group representing proximity of a distinguishable hand part or other touch object on or near the touch-sensitive surface; and
   fitting an ellipse to at least one of the pixel groups.

2. The method of claim 1 further comprising transmitting one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

3. The method of claim 2 wherein the one or more ellipse parameters is selected from the group consisting of position, shape, size, orientation, eccentricity, major radius, minor radius, and any combination thereof.

4. The method of claim 3 wherein the one or more ellipse parameters are used to distinguish a pixel group associated with a fingertip from a pixel group associated with a thumb.

5. The method of claim 1 wherein fitting an ellipse to a group of pixels comprises computing one or more eigenvalues and one or more eigenvectors of a covariance matrix associated with the pixel group.

6. The method of claim 1 further comprising:
   tracking a path of at least one of the one or more pixel groups through a time-sequenced series of proximity images;
   fitting an ellipse to the at least one of the one or more pixel groups in each of the time-sequenced series of proximity images; and
   tracking a change in one or more ellipse parameters through the time-sequenced series of proximity images.

7. The method of claim 6 further comprising transmitting the change in the one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

8. The method of claim 7 wherein the change in the one or more ellipse parameters is selected from the group consisting of position, shape, size, orientation, eccentricity, major radius, minor radius, and any combination thereof.

9. The method of claim 6 wherein fitting an ellipse to the one pixel group comprises computing one or more eigenvalues and one or more eigenvectors of a covariance matrix associated with the pixel group.

10. A touch-sensing device comprising:

a substrate;

a plurality of touch-sensing electrodes arranged on the substrate;

electronic scanning hardware adapted to read the plurality of touch-sensing electrodes;

a calibration module operatively coupled to the electronic scanning hardware and adapted to construct a proximity image having a plurality of pixels corresponding to the touch-sensing electrodes; and

a contact tracking and identification module adapted to:

segment the proximity image into one or more pixel groups, each pixel group representing proximity of a distinguishable hand part or other touch object on or near the touch-sensitive surface; and

fit an ellipse to at least one of the one or more pixel groups.

11. The touch-sensing device of claim 10 further comprising a host communication interface adapted to transmit one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

12. The touch-sensing device of claim 11 wherein the touch-sensing device is integral with the electronic or electro-mechanical device.

13. The touch-sensing device of claim 11 wherein the one or more ellipse parameters comprise one or more parameters selected from the group consisting of position, shape, size, orientation, eccentricity, major radius, minor radius, and any combination thereof.

14. The method of claim 13 wherein the one or more ellipse parameters are used to distinguish a pixel group associated with a fingertip from a pixel group associated with a thumb.

15. The touch-sensing device of claim 10 wherein the contact tracking and identification module is adapted to compute one or more eigenvalues and one or more eigenvectors to fit the ellipse.

16. The touch-sensing device of claim 10 wherein the contact tracking and identification module is further adapted to:

track a path of one or more pixel groups through a plurality of time-sequenced proximity images;

fit an ellipse to at least one of the one or more pixel groups in a first proximity image of the plurality of time-sequenced proximity images; and

track a change in one or more ellipse parameters associated with the fitted ellipse through two or more of the time-sequenced proximity images.

17. The touch-sensing device of claim 16 further comprising a host communication interface adapted to transmit the change in at least one of the one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

18. The touch-sensing device of claim 17 wherein the touch-sensing device is integral with the electronic or electro-mechanical device.

19. The touch-sensing device of claim 17 wherein the change in one or more ellipse parameters used as a control input to an electronic or electro-mechanical device comprises one or more parameters selected from the group consisting of position, shape, size, orientation, eccentricity, major radius, minor radius, and any combination thereof.

20. The touch-sensing device of claim 16 wherein the contact tracking and identification module is adapted to compute one or more eigenvalues and one or more eigenvectors to fit the ellipse.

21. The touch-sensing device of any one of claims 10–12 and 16–18 wherein the touch-sensing device is fabricated on or integrated with a display device.

22. The touch-sensing device of claim 21, wherein the display device comprises a liquid crystal display (LCD) or a light-emitting polymer display (LPD).

23. A computer-readable medium having embodied thereon instructions executable by a machine to perform a method according to any of claims 1–9.

24. A touch-sensing device comprising:

means for producing a proximity image representing a scan of a plurality of electrodes of a touch-sensitive surface, the proximity image having a plurality of pixels corresponding to the touch-sensing electrodes; and

means for segmenting the proximity image into one or more pixel groups, each pixel group representing a touch object on or near the touch-sensitive surface; and

means for fitting an ellipse to at least one of the pixel groups.

25. The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of a hand.

26. The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of one or more fingers.

27. The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of a body part.

28. The touch-sensing device of claim 27 wherein the body part comprises one or more of a hand, a finger, an ear, or a cheek.

29. The touch-sensing device of claim 24 further comprising means for transmitting one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

30. The touch-sensing device of claim 27 wherein the touch-sensing device is integral with the electronic or electro-mechanical device.

31. The touch-sensing device of claim 24 further comprising:

means for tracking a path of one or more pixel groups through a plurality of time-sequenced proximity images;

means for fitting an ellipse to at least one of the pixel groups in a plurality successive proximity images; and

means for tracking a change in one or more ellipse parameters through a plurality of time-sequenced proximity images.

32. The touch-sensing device of claim 29 further comprising means for transmitting the change in the one or more ellipse parameters as a control signal to an electronic or electro-mechanical device.

33. The touch-sensing device of claim 32 wherein the touch-sensing device is integral with the electronic or electro-mechanical device.

34. The touch-sensing device of any one of claims 24 and 29–33 wherein the touch-sensing device is fabricated on or integrated with a display device.

35. The touch-sensing device of claim 34, wherein the display device comprises a liquid crystal display (LCD) or a light-emitting polymer display (LPD).

Electronic Acknowledgement Receipt

EFS ID:	1537868
Application Number:	11677958
International Application Number:	
Confirmation Number:	1844
Title of Invention:	ELLIPSE FITTING FOR MULTI-TOUCH SURFACES
First Named Inventor/Applicant Name:	Wayne Westerman
Customer Number:	29855
Filer:	Billy Collins Allen/Kerri Hyland
Filer Authorized By:	Billy Collins Allen
Attorney Docket Number:	FW-0092USCD
Receipt Date:	22-FEB-2007
Filing Date:	
Time Stamp:	17:59:34
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	$1750
RAM confirmation Number	735
Deposit Account	501922
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Thus, Species X, Y and Z have each a mutually exclusive feature and the Applicant is required to elect a species from the "**Species Group: Side view of proximity sensor"** as identified above. The Applicant is require to elect a species from this group.

Note, that searching for the mutually exclusive characteristics/features would be a search burden for the examiner because different searches with different keywords would be required for each of the mutually characteristics/features as identified above.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-8, 23-29, 31 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by **[Bisset; Stephen J. et al., US 5825352 A]**.

Regarding claim 1:

Bisset discloses:

A method of processing input from a touch-sensitive surface **[Bisset: Title: …TOUCH SENSOR PAD…]**, the method comprising: receiving at least one proximity image

[Bisset: Fig.7B; X profile and Y profile and/or Finger in contact with touch sensor; Examiner: Note that the touch pad array, see Fig.2 (30), of Bisset is scanned. The output of the touchpad arrays (30) can be interpreted as being an image. For e.g. see Fig.7B, each of the contact areas of the fingers with the touch sensor can be interpreted as corresponding to Applicant's proximity image/s, further each of the X profile and Y profile of the finger in contact with the touch sensor can be additionally be interpreted as corresponding to Applicant's proximity image/s] representing a scan of a plurality of electrodes of the touch-sensitive surface **[Bisset: Fig.2; Examiner: Note that sensor pad array 30 is scanned, the horizontal traces and vertical traces correspond to Applicants electrodes]**; segmenting each proximity image into one or more pixel groups **[Bisset: Fig.7B; Examiner: Area of contact with Finger as shown in Fig.7b can be interpreted as corresponding to applicant's pixel group]** that indicate significant proximity **[Bisset: Fig.7B; Examiner: Each X and Y profile can be interpreted as a single segment, or in the case where two fingers are in contact with the touch pad as shown in Fig. 7B, each area of contact of each finger can be interpreted as being a segment]**, each pixel group representing proximity of a distinguishable hand part or other touch object on or near the touch-sensitive surface **[Bisset: Fig.7B; Examiner: The area of contact with the touch sensor is representative of a finger tip]**; and fitting an ellipse to at least one of the pixel groups **[Bisset: Fig.7B; Also inherent that the contact area of a human fingertip with a surface has is of a ellipse-like shape; Examiner: The area of contact with the touch sensor is**

representative of a finger tip, note that the area of contact of the tip of the finger with the touch sensor is an ellipse-like shape, see Fig.7B; Examiner: Note that if a tip of a finger is in contact with an surface, the contact area is in general ellipse-like because of the shape at the tip of a human finger, the examiner will cite pertinent reference to prove this].

Regarding claim 2:

Bisset discloses:

The method of claim 1 further comprising transmitting one or more ellipse parameters as a control signal to an electronic or electromechanical device **[Bisset: (Column 5, Lines 47-55): "The analog to digital converter 80 then supplies the signals to the microcontroller 60, which operates to form, among other things, a finger profile for one or more fingers, X-Y cursor data, and control signals. Depending on the operation being performed at the particular time, the output of microcontroller 60 is then supplied to an interface to a PC or other device, such as a PS/2 interface, an RS-232 interface, or an Apple Desktop Bus (ADB)"]**.

Regarding claim 3:

Bisset discloses:

The method of claim 2 wherein the one or more ellipse parameters is selected from the group consisting of position **[Bisset: (Column 5, Lines 47-55): "X-Y cursor data"]**, shape **[Bisset: (Column 5, Lines 47-55): "finger profile", see in combination with**

Fig.7B (X,Y profile)], size **[Inherent from Finger profile, XY profile]**, orientation **[Inherent from Finger profile, XY profile]**, eccentricity **[Inherent from Finger profile, XY profile]**, major radius **[Inherent from Finger profile, XY profile]**, minor radius **[Inherent from Finger profile, XY profile]**, and any combination thereof.

Regarding claim 6:

Bisset discloses:

The method of claim 1 further comprising: tracking a path of at least one of the one or more pixel groups through a time-sequenced series of proximity images **[Bisset: (Column 5, Line 58-61): " In a typical embodiment, the operation of the circuit of FIG. 2 *cycles* continuously. As noted above, the cycle begins by scanning the traces and measuring the capacitance on each trace."; (Column 6, Lines 14-end of Paragraph); Examiner: Note that the position of a finger is determined in Bisset, by continuously scanning and storing the x and y positions of the fingers in each cycle. See also Fig.5 and 6, specifically xcompute, ycompute and x and y motion]**; fitting an ellipse to the at least one of the one or more pixel groups in each of the time-sequenced series of proximity images **[Bisset: Fig.7B; Also inherent that the contact area of a human fingertip with a surface has is of a ellipse-like shape; Examiner: The area of contact with the touch sensor is representative of a finger tip, note that the area of contact of the tip of the finger with the touch sensor is an ellipse-like shape, see Fig.7B; Examiner: Note that if a tip of a finger is in contact with an surface, the contact area is in general ellipse-like because of the shape at**

the tip of a human finger, the examiner will cite pertinent reference to prove this]; and tracking a change in one or more ellipse parameters through the time-sequenced series of proximity images **[Bisset: (Column 6, Lines 14-end of paragraph); (Column 7, Lines 34-end of Paragraph)]**.

Regarding claim 7:

Bisset discloses:

The method of claim 6 further comprising transmitting the change in the one or more ellipse parameters **[Bisset: (Column 6, Lines 14-end of paragraph); (Column 7, Lines 34-end of Paragraph)]** as a control signal to an electronic or electromechanical device **[Bisset: (Column 5, Lines 47-55): "The analog to digital converter 80 then supplies the signals to the microcontroller 60, which operates to form, among other things, a finger profile for one or more fingers, X-Y cursor data, and control signals. Depending on the operation being performed at the particular time, the output of microcontroller 60 is then supplied to an interface to a PC or other device, such as a PS/2 interface, an RS-232 interface, or an Apple Desktop Bus (ADB)"]**.

Regarding claim 8:

The limitations of claim 8 have been addressed in the discussion of claim 3 above.

Regarding claims 23:

A computer-readable medium having embodied thereon instructions executable by a machine **[Bisset: Fig.2, Inherent from Microcontroller, Fig.5 and 6.; Examiner: Note that Microcontrollers execute instructions stored in a type of memory device.;]** to perform a method according to any of claims 1-9 **[Examiner: Refer to any of the claims 1-9]**.

Regarding claim 24:

Bisset discloses:

A touch-sensing device **[Bisset: Title: …TOUCH SENSOR PAD…]** comprising: means **[Bisset: Fig.2; 45 and 60]** for producing a proximity image representing a scan of a plurality of electrodes of a touch-sensitive surface **[Bisset: Fig.7B; X profile and Y profile and/or Finger in contact with touch sensor; Examiner: Note that the touch pad array, see Fig.2 (30), of Bisset is scanned. The output of the touchpad arrays (30) can be interpreted to being an image. For e.g. see Fig.7B, each of the contact areas of the fingers with the touch sensor can be interpreted as corresponding to Applicant's proximity image/s, further each of the X profile and Y profile of the finger in contact with the touch sensor can be additionally be interpreted as corresponding to Applicant's proximity image/s]**, the proximity image having a plurality of pixels corresponding to the touch-sensing electrodes **[Bisset: Fig.2; Examiner: Note that sensor pad array 30 is scanned, the horizontal traces and vertical traces correspond to Applicants electrodes]**; and means **[Bisset: Fig.2: 60]**

for segmenting the proximity image into one or more pixel groups **[Bisset: Fig.7B; Examiner: Area of contact with Finger as shown in Fig.7b can be interpreted as corresponding to applicant's pixel group]**, each pixel group representing a touch object on or near the touch-sensitive surface; and means for fitting an ellipse to at least one of the pixel groups **[Bisset: Fig.7B; Also inherent that the contact area of a human fingertip with a surface has is of a ellipse-like shape; Examiner: The area of contact with the touch sensor is representative of a finger tip, note that the area of contact of the tip of the finger with the touch sensor is an ellipse-like shape, see Fig.7B; Examiner: Note that if a tip of a finger is in contact with an surface, the contact area is in general ellipse-like because of the shape at the tip of a human finger, the examiner will cite pertinent reference to prove this]**.

Regarding claim 25:

Bisset discloses:

The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of a hand **[Bisset: Fig.7B; Examiner: Note that the finger/s as shown in Fig.5 are considered to be a portion of a hand]**.

Regarding claim 26:

Bisset discloses:

The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of one or more fingers **[Bisset: Fig.7B]**.

Regarding claim 27:

Bisset discloses:

The touch-sensing device of claim 24 wherein the touch object comprises at least a portion of a body part **[Bisset: Fig.7B; Examiner: A finger is a body part]**.

Regarding claim 28:

Bisset discloses:

The touch-sensing device of claim 27 wherein the body part comprises one or more of a hand, a finger **[Bisset: Fig.7B; Examiner: Note that the finger/s as shown in Fig.5 are considered to be a body part]**, an ear, or a cheek.

Regarding claim 29:

The limitations of claim 29 have been addressed in the discussion of claim 2 above.

Regarding claim 31:

The limitations of claim 31 have been addressed in the discussion of claim 6 above.

Regarding claim 32:

The limitations of claim 32 have been addressed in the discussion of claims 2 and/or 7 above.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 10-13, 16-19, 21, 22, 30 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **[Bisset; Stephen J. et al., US 5825352 A]**.

Regarding claim 10:

Bisset disclose:

A touch-sensing device comprising: a plurality of touch-sensing electrodes **[Bisset: Fig.2; Examiner: Note that sensor pad array 30 is scanned, the horizontal traces and vertical traces correspond to Applicants electrodes]**; electronic scanning

hardware **[Bisset: Fig.2; 45]** adapted to read the plurality of touch-sensing electrodes **[Bisset: Fig.2; Inherent from 45; (Column 5, Lines 28-34): "The rows and columns are connected to an analog multiplexor 45 through a plurality of X (row) direction conductors 50 and a plurality of Y (column) direction conductors 55, one conductor for each row and each column. Under the control of a microcontroller 60, the analog multiplexor 45 selects which traces of the matrix 30 will be sampled, and the output of those traces is then provided to a capacitance measuring circuit 70"]**; a calibration module **[Bisset: Fig.2; 45 and 70 and 80 and 60]** operatively coupled to the electronic scanning hardware **[Bisset: Fig.2; Examiner: Note that 45 is coupled to 70,80 and 60]** and adapted to construct a proximity image **[Bisset: Fig.7B; X profile and Y profile and/or Finger in contact with touch sensor; Examiner: Note that the touch pad array, see Fig.2 (30), of Bisset is scanned. The output of the touchpad arrays (30) can be interpreted to being an image. For e.g. see Fig.7B, each of the contact areas of the fingers with the touch sensor can be interpreted as corresponding to Applicant's proximity image/s, further each of the X profile and Y profile of the finger in contact with the touch sensor can be additionally be interpreted as corresponding to Applicant's proximity image/s]** having a plurality of pixels corresponding to the touch-sensing electrodes **[Bisset: Fig.2; Examiner: Note that sensor pad array 30 is scanned, the horizontal traces and vertical traces correspond to Applicants electrodes]** ; and a contact tracking and identification module **[Bisset: Fig.2: 60]** adapted to: segment the proximity image into one or more pixel groups **[Bisset: Fig.7B; Examiner: Area of**

contact with Finger as shown in Fig.7b can be interpreted as corresponding to applicant's pixel group], each pixel group representing proximity of a distinguishable hand part or other touch object on or near the touch-sensitive surface **[Bisset: Fig.7B; Examiner: The area of contact with the touch sensor is representative of a finger tip]**; and fit an ellipse to at least one of the one or more pixel groups **[Bisset: Fig.7B; Also inherent that the contact area of a human fingertip with a surface has is of a ellipse-like shape; Examiner: The area of contact with the touch sensor is representative of a finger tip, note that the area of contact of the tip of the finger with the touch sensor is an ellipse-like shape, see Fig.7B; Examiner: Note that if a tip of a finger is in contact with an surface, the contact area is in general ellipse-like because of the shape at the tip of a human finger, the examiner will cite pertinent reference to prove this]**.

However, Bisset does not expressly disclose:

a substrate and electrodes arranged on the substrate.

The Examiner takes official notice that it is old and well known in the art that sensor arrays (vertical and horizontal traces/electrodes) such as the one disclosed by Bisset is placed on a substrate, or sandwiched between substrates. The motivation do so, is for e.g. to isolate or shield the array from noise and/or prevent electrical short circuits.

Evidence for the Official Notice can be seen for e.g. in [Tareev; Aleksey A. US 6147680 A], see Fig.1 of Tareev.

REMARKS

Claims 1-35 are pending in the application. Further examination and reconsideration are respectfully requested.

Applicants would like to thank the Examiner for the indication of allowable subject matter in dependent claims 5, 9, 15, and 20. Applicants have chosen not to amend these claims into independent form because the base claims are believed to be allowable.

Applicants would like to thank the Examiner for the courtesies and thoughtful treatment afforded to Applicants' undersigned representative during the January 26, 2010 interview. The foregoing amendments and following remarks reflect the substance of the interview.

Claims 1-3, 6-8, 23-29, 31, and 32 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 5,825,352 (Bisset). The rejections are respectfully traversed. Reconsideration and withdrawal of the rejections are respectfully requested.

THE OFFICE ACTION'S INTERPRETATION OF "FITTING AN ELLIPSE TO AT LEAST ONE OF THE PIXEL GROUPS" IS UNREASONABLE IN LIGHT OF THE PLAIN MEANING OF "FITTING AN ELLIPSE TO" AND, IN PARTICULAR, DISREGARDS THE REQUIREMENT TO INTERPRET CLAIMS IN LIGHT OF THE SPECIFICATION

During the interview, the Examiner's interpretation of the feature of "fitting an ellipse to at least one of the pixel groups" (claim 1) was discussed. Applicants' representative disagreed with the Office Action's assertion that Bisset's "finger profile" (shown, e.g., in FIG. 7B of Bisset), which is simply a series of capacitance values measured when a finger contacts a touchpad, discloses the feature of "fitting an ellipse to …". Specifically, paraphrasing the Office Action's interpretation, merely *obtaining* measured data is the same as *fitting an ellipse to* the data, so long as the measured data happens to be measured from an object that "is in general ellipse-like". (Office Action, page 7.) Applicants representative asserted that, under the plain meaning of the language of the claims,

without more, one skilled in the art would not interpret "fitting an ellipse to at least one of the pixel groups" in such a manner. Furthermore, the Office Action's interpretation is particularly unreasonable when the claim language is viewed in light of the specification, as it must be viewed. In this regard, Applicants submit that the Office Action fails to consider the disclosure of the specification when interpreting at least the feature of "fitting an ellipse to at least one of the pixel groups." In light of the foregoing, Applicants respectfully traverse the rejections.

Nonetheless, claim 1 has been amended to recite *mathematically* fitting an ellipse to at least one of the pixel groups. During the interview, the Examiner indicated that the amendment would overcome the rejections. Claim 10 has been similarly amended. Accordingly, withdrawal of the rejections of claims 1 and 10 is respectfully requested.

THE OFFICE ACTION FAILS TO MEET THE REQUIREMENT TO EXPLAIN WHY "MEANS FOR" FEATURES ARE NOT BEING TREATED UNDER 35 U.S.C. § 112, SIXTH PARAGRAPH

Claim 24 has not been amended. The rejection of claim 24 is respectfully traversed. Claim 24 includes, among other features, means for fitting an ellipse to at least one of the pixel groups. In entering the rejection of claim 24, the Office Action does not indicate that this feature, or any other feature of the claim that begin with "means for," is being treated under 35 U.S.C. § 112, sixth paragraph. MPEP § 2181(I) requires examiners to state the reasons why a claim limitation that uses the phrase "means for" is not being treated under § 112, sixth paragraph:

> "If a claim limitation does include the phrase "means for" or "step for," that is, the first prong of the 3-prong analysis is met, but the examiner determines that either the second prong or the third prong of the 3-prong analysis is not met, then in these situations, the examiner must include a statement in the Office action explaining the reasons why a claim limitation which uses the phrase "means for" or "step for" is not being treated under 35 U.S.C. 112, sixth paragraph." (MPEP § 2181(I) (emphasis added).)

Therefore, the rejection fails to meet the requirement of MPEP § 2181.

Even more clearly than with the rejections of claims 1 and 10, the Office Action's rejection of claim 24 fails to interpret the claims in light of the specification. In asserting that Bisset discloses a means for fitting an ellipse to at least one of the pixel groups, the Office Action simply cuts-and-pastes the language used in the rejection of claim 1. Thus, the Office Action apparently does not interpret the language of the "means for" features of claim 24 as required by law. (*See, e.g.*, MPEP § 2181 ("a "means-or-step-plus-function" limitation should be interpreted in a manner different than patent examining practice had previously dictated"); MPEP § 2106(II)(C) ("Where means plus function language is used to define the characteristics of a machine or manufacture invention, such language must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof" that correspond to the recited function.")(emphasis added)(citations omitted); *Id.* ("Thus, at the outset, USPTO personnel must attempt to correlate claimed means to elements set forth in the written description that perform the recited step or function. The written description includes the original specification and the drawings and USPTO personnel are to give the claimed means plus function limitations their broadest reasonable interpretation consistent with all corresponding structures or materials described in the specification and their equivalents including the manner in which the claimed functions are performed.")(emphasis added)(citations omitted).)

Therefore, Applicants have chosen not to amend claim 24. Applicants respectfully request that, if the rejection is maintained, the Examiner clarify whether the language of claim 24 is being treated under § 112, sixth paragraph, and if so, the Examiner clarify how he interprets the language "means for fitting an ellipse to at least one of the pixel groups" to read only on the structures/materials disclosed in the specification and equivalents thereof including the manner in which the claims functions are performed. However, in light of the foregoing, Applicants believe claim 24 is allowable.

The remaining claims depend from the independent claims discussed above, and are believed to be allowable for at least the foregoing reasons. Therefore, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and to pass

this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing Docket No. 106842508604. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: February 24, 2010

Respectfully submitted,

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