Appeal decision

Appeal No. 2018-13204

Kyoto, Japan
Appellant KYOCERA Corporation

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The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2018-32009, entitled "ELECTRONIC DEVICE, CONTROL METHOD, AND PROGRAM" [17 Claims] has resulted in the following appeal decision.

Conclusion

The examiner's decision is revoked.

The Invention of the present application shall be granted a patent.

Reason

No. 1 History of the procedures

The application relating to the case of appeal (the Application) is a patent application which was filed on February 26, 2018. An amendment regarding the scope of claims was made on May 30, 2018, an examiner's decision of refusal (the Examiner's decision) was issued as of June 20, 2018, and a certified copy of the decision was delivered on July 3, 2018.

In response, an appeal against the examiner's decision of refusal was made on October 3, 2018. At the same time, an amendment was made to the scope of claims.

The body dismissed the amendment based on the decision as of May 31, 2019, and issued reasons for refusal (hereinafter referred to as "the Reasons for refusal by the body") as of the same date. The appellant made an amendment to the scope of claims (hereinafter referred to as "the Amendment") and submitted a written opinion on July 1, 2019.

The number of claims before the Amendment (which indicate the claims after the amendment made on May 30, 2018, the same applies hereinafter) was 25. Claims 2 to

7 and Claims 24 and 25 before the Amendment were cancelled by the Amendment. The number of claims after the Amendment is 17.

No. 2 The invention according to the present application

The inventions according to Claims 1 to 17 of the scope of claims of the Application (hereinafter referred to as "Invention 1" to "Invention 17") are as follows, which are specified by the matters described in Claims 1 to 17 of the scope of claims after the Amendment of the Application.

"[Claim 1]

An electronic device comprising a camera, a first sensor, a second sensor different from the first sensor, a display, and a controller, wherein

the controller is configured to

measure, on the basis of a captured image captured by the camera and distance information indicating a distance to a particular subject, based on a detection result of the first sensor, size information related to at least a portion of the particular subject included in the captured image; and

cause an overlay image, yielded by overlaying both the size information and sensor information based on a detection result of the second sensor, which is different from the first sensor, on the captured image, to be displayed on the display,

the second sensor is a sensor for detecting information on a state of the device itself, and

the sensor information includes information indicating successive changes in position of the device.

[Claim 2]

The electronic device of Claim 1, wherein

the controller is configured to

include, in the overlay image, at least one of name information of the particular subject and size information unique to the particular subject.

[Claim 3]

The electronic device of Claim 1 or Claim 2, further comprising:

a storage, wherein

the controller is configured to

cause the overlay image stored in the storage to be displayed on the display.

[Claim 4]

The electronic device of Claim 1 or Claim 2, further comprising:

a storage, wherein

the controller is configured to

store the overlay image in the storage when a first operation is performed after the controller causes the overlay image to be displayed on the display.

[Claim 5]

The electronic device of Claim 4, wherein

the controller is configured to

cause the overlay image to be displayed on the display when a second operation is performed, and store the overlay image in the storage when the first operation is performed after the overlay image is displayed on the display.

[Claim 6]

The electronic device of Claim 5, wherein

the controller is configured to

cause the overlay image to be displayed on the display for only a predetermined length of time when the second operation is performed.

[Claim 7]

The electronic device of Claim 5 or Claim 6, configured to

cause, in the overlay image, an image related to the size information to be overlaid on the captured image.

[Claim 8]

The electronic device of claim 7, wherein

the controller is configured to

overlay the size information on the captured image when a third operation is performed.

[Claim 9]

The electronic device of claim 8, wherein

the controller is configured to

overlay the size information on the captured image when an operation is performed, as the third operation, to specify a measurement range in the captured image of a predetermined imaging range.

[Claim 10]

The electronic device of Claim 8 or Claim 9, wherein

the controller is configured to

store the overlay image in the storage when the first operation is performed after the size information is overlaid on the captured image.

[Claim 11]

The electronic device described in one of Claims 1 to 10, further comprising a touch sensor configured to start focus processing and size information detection processing, wherein

the controller is configured to

switch, when a predetermined operation is performed while the captured image is being displayed, between a first mode in which focus processing can be performed and a second mode in which size information detection processing can start.

[Claim 12]

The electronic device described in one of Claims 1 to 11, wherein

the controller is configured to

cause an overlay image, yielded by overlaying an object indicating the size information on the captured image that includes the particular subject, to be displayed on the display.

[Claim 13]

The electronic device described in one of Claims 1 to 11, wherein

the controller is configured to

measure size information related to the particular subject in its entirety, and

cause an overlay image, yielded by overlaying an object indicating the size information on the captured image including the particular subject in its entirety, to be displayed on the display.

[Claim 14]

The electronic device of Claim 12 or Claim 13, wherein the object includes a line segment having a predetermined length.

[Claim 15]

The electronic device described in one of Claims 12 to 14, wherein the size information is further displayed on the overlay image in a different form than the object.

[Claim 16]

A method of controlling an electronic device comprising a camera, a first sensor, a second sensor different from the first sensor, a display, and a controller, the method comprising:

a step of measuring, using the controller, size information on the basis of a captured image captured by the camera and distance information indicating a distance to a particular subject, based on a detection result of the first sensor, the size information being related to at least a portion of the particular subject included in the captured image; and

a step of causing, using the controller, an overlay image to be displayed on the display, the overlay image being yielded by overlaying both the size information and sensor information based on a detection result of the second sensor, which is different from the first sensor, on the captured image, wherein

the second sensor is a sensor for detecting information on a state of the device itself, and

the sensor information includes information indicating successive changes in position of the device.

[Claim 17]

A program for controlling an electronic device comprising a camera, a first sensor, a second sensor different from the first sensor, a display, and a controller, configured to

cause the controller to execute

a step of measuring size information on the basis of a captured image captured by the camera and distance information indicating a distance to a particular subject, based on a detection result of the first sensor, the size information being related to at least a portion of the particular subject included in the captured image, and

a step of causing an overlay image to be displayed on the display, the overlay image being yielded by overlaying both the size information and sensor information based on a detection result of the second sensor, which is different from the first sensor, on the captured image, wherein

the second sensor is a sensor for detecting information on a state of the device itself, and

the sensor information includes information indicating successive changes in position of the device."

Inventions 2 to 15 include all of the components of Invention 1.

Invention 16 is an invention of a method of controlling an "electronic device" relating to Invention 1. Invention 17 is an invention of a program for causing the "controller" of the "electronic device" to execute the invention of the method relating to Invention 16. They are different from Invention 1 only in category expression.

No. 3 Outline of reasons for refusal stated in the examiner's decision

1 Reason 1 (novelty)

The inventions according to Claim 1, Claim 3, Claims 8 to 11, Claims 14 to 16, and Claims 18 to 23 before the amendment, which are inventions described in the Cited document 1, fall under Article 29(2)(iii) of the Patent Act, should not be patented.

2 Reason 2 (inventive step)

The inventions according to Claim 1, Claim 3, and Claims 8 to 23 before the amendment could have been easily made by a person skilled in the art based on the inventions described in Cited Documents 1 to 4, should not be patented under the provisions of Article 29(2) of the Patent Act.

Cited Document 1: Japanese Unexamined Patent Application Publication No. 2005-142938
Cited Document 2: Japanese Unexamined Patent Application Publication No. 2006-251347
Cited Document 3: Japanese Unexamined Patent Application Publication No. H5-297445
Cited Document 4: Japanese Unexamined Patent Application Publication No. 2016-122990

No. 4 Outline of reasons for refusal of the body

1 Reason 1 (clarity)

What the "information common to the particular subject" described in Claim 8 before the amendment specifies is unclear.

From the descriptions in Claims 10 to 13 before the amendment, operation of the "controller" in the inventions according to the claims cannot be understood.

In the description in Claim 20 before the amendment of the application, "line segment having a predetermined width", what the "line segment" and the "width" specify cannot be identified and cannot be understood.

Therefore, the inventions according to Claim 8, Claims 10 to 13, and Claim 20 are not clear. The same applies to the inventions according to the claims before the amendment described directly or indirectly depending on the above claims.

2 Reason 2 (inventive step)

The inventions according to Claims 1 to 25 before the amendment could have been easily made by a person skilled in the art based on the inventions described in Cited Documents 1 to 7, should not be patented under the provisions of Article 29(2) of the Patent Act.

Cited Document 1: Japanese Unexamined Patent Application Publication No. 2005-142938 (shown again)

Cited Document 2: Japanese Unexamined Patent Application Publication No. 2006-251347 (shown again)
Cited Document 3: Japanese Unexamined Patent Application Publication No. H5-297445 (shown again)
Cited Document 4: Japanese Unexamined Patent Application Publication No. 2016-122990 (shown again)
Cited Document 5: International Publication No. 2013/099271
Cited Document 6: Japanese Unexamined Patent Application Publication No. H10-115861
Cited Document 7: Japanese Unexamined Patent Application Publication No. 2004-48577

No. 5 Reasons for refusal of the body
1 Reason 1 (clarity)

The "information common to the particular subject" described in Claim 8 before the amendment was modified by the Amendment to "name information of the particular subject" described in Claim 2 after the amendment, thereby clarifying what the description specifies.

The matters described in Claims 10 to 13 before the amendment (Claims 4 to 7 after the amendment) were modified by the Amendment, thereby allowing the operation of the "controller" in the inventions according to the claims to be understood.

The "line segment having a predetermined width" described in Claim 20 before the amendment was modified by the Amendment to the "line segment having a predetermined length" described in Claim 14 after the amendment, thereby allowing the description to be identified.

Therefore, the inventions according to Claim 2, Claims 4 to 7, and Claim 14 after the amendment (Invention 2, Inventions 4 to 7, and Invention 14) are clear. The same applies to the inventions according to the claims after the amendment described directly or indirectly depending on the above claims.

2 Regarding Reason 2 (inventive step)
(1) Inventions and others described in the Cited Documents
A Cited Document 1
(A) Cited Document 1 describes the following matters. The underlines were added by the body.

"[0045]

The embodiment of the invention is described below with the drawings.

FIG. 1 is a block diagram showing a circuit system configuration of an electric camera in the embodiment of the invention.

[0046]

The electric camera 1 includes a main control circuit 10 for controlling the whole of the camera. The main control circuit 10 controls each section to implement imaging, displaying, recording, and communication with an external device. The electronic camera 1 in the embodiment has a function of calculating the size (length) of a subject in an image captured and displaying the image with the information added thereto and recording the information in association with the image."

"[0051]

The light incident from the subject through a lens optical system is photoelectrically converted by an imaging element 28, such as a CCD (Charge Coupled Device), in accordance with scanning drive control of a timing generation unit 32 and a driver 30, and digitized through a sample-hold (S&H) circuit 34, an auto-gain controller (AGC) 36, and an A/D circuit 37 for input.

[0052]

The main control circuit 10 includes an image processing unit 40, a distance calculation unit 41, a moving speed calculation unit 42, a storage unit 43, a display selection unit 44, and a subject identification unit 45.

[0053]

The image processing unit 40 applies processing, such as data compression, to digital data input through the A/D circuit 37. The image data subjected to image processing by the image processing unit 40 is recorded on a memory (semiconductor memory) 50. The image processing unit 40 causes a display memory (not shown) of a display control unit 46 to record the image data input through the imaging system (shutter 19 to A/D circuit), through a display selection unit 44, thereby displaying a captured (through) image on a display unit 48 as an LCD finder. The image processing unit 40 executes image processing for extracting a subject from a captured image, such as extracting an area (contour of a subject) corresponding to the subject from density distribution, luminance distribution, contrast, or saturation distribution.

[0054]

The distance calculation unit 41 generates a scale (scale and length, unit) of length, which is a vertical or lateral actual size (actual physical length) of a plane (or a curved

surface of the same distance) perpendicular to an optical axis in a focal distance to the subject converted based on data on the distance to the subject measured precisely by a distance speed calculation unit 39 (detail configuration is described later (FIG.3, FIG. 4)), to be stored in the storage unit 43 as length/distance data 43b. On the basis of the length/distance data 43b, the image can be displayed simultaneously with the scale to the bottom or the side in a screen of the display unit 48 (LCD finder) or to the position of the subject. In response to changing a focus position or zoom magnification controlled by a lens/imaging-system control circuit 12, the scale for distance or length is also updated. When a focal point is locked, the distance calculation unit 41 marks a plurality spots from an image corresponding to the subject, measures a length between two spots of a plane (or a curved surface) or between an origin and another point, and converts it into an actual dimension to be stored in the storage unit 43 as length/distance data 43b. On the basis of the length/distance data 43b, a figure representing a space between two spots designated with respect to the subject and a numerical number representing an actual length can be displayed in the image. The spots are marked in response to an instruction input by operating an operation unit 55 (cursor key) through an input circuit 54, or by detecting, for example, an end on the basis of an area image corresponding to the subject extracted by image processing of the image processing unit 40."

"[0060]

The display control unit 46 causes, on the basis of image data 46a stored in the display memory, the display unit 48 (LCD monitor) to display in real time a captured (through) image as an electronic finder, or to display an already captured image based on image data stored in a memory 50 or an external memory 52. On the basis of information processing data 46b stored in the subject identification unit 45, a type name (name) of the subject or various other information is displayed on the display unit 48 together with the subject image."

"[0103]

FIG. 10(a) illustrates a display example of a focal lock state where a fish, which is a subject, in a captured image is in focus. In FIG. 10 (a), a distance (3.2M) to the fish is displayed with a measurement scale."

"[0107]

The main control circuit 10 provides the display control unit 46 with a measured length and length/distance data 43b of a measurement line through the display selection unit 44, to be displayed with the captured image (step B7)."

"[0111]

When an instruction to record/save the captured image is input from the operation unit 55 (step B11, Yes), the main control circuit 10 receives an input of information to be recorded with the captured image. For example, a software keyboard (list of characters) is displayed in the display unit 48, and an arbitrary character selected by operating a cursor key or a coordinate input unit (touch panel) is input. Kana-kanji conversion processing, for example, is applied to the input character (character string), and a character string including Kanji can be formed. Thus, a user can input a place (name of place) where the user caught the fish, the name of the fish, and other arbitrary information using character strings.

[0112]

The main control circuit 10 causes the input character string to be displayed in a predetermined position in the captured image, e.g., an upper part of the screen. FIG. 10 (d) illustrates one example of a screen where an input character string is displayed. FIG. 10 (d) illustrates a state where character strings "Kamikoshi-keikoku, Nijimasu" which indicate the place where the fish was caught and the name of fish are input."

(B) Summarizing the description in the above (A) in Cited Document 1, Cited Document 1 describes the following invention (hereinafter referred to as "Cited Invention").

"An electronic camera 1 including a main control circuit 10 for controlling the whole of the camera, and configured to calculate the size (length) of a subject in an image captured and display the image with the information added thereto, comprising:

an imaging element 28 which applies photoelectric conversion to light incident from the subject through a lens optical system;

a sample-hold circuit 34, an auto-gain controller 36, and an A/D circuit 37 which convert the light from the subject applied to photoelectric conversion into digital data;

an image processing unit 40 which applies processing, such as data compression, to the digital data input through the A/D circuit 37;

a memory 50 where the image data subjected to image processing is recorded;

a distance speed calculation unit 39 which measures a distance to a subject precisely;

a distance calculation unit 41 which generates a scale of length, which is a vertical or lateral actual size of a plane perpendicular to an optical axis in a focal distance to the subject converted based on data on the distance to the subject, to be stored in the storage unit 43 as length/distance data 43b, and marks, when a focal point is locked, a plurality of spots from an image corresponding to the subject, measures a length between two spots of a plane, and converts it into an actual dimension to be stored in the storage unit 43 as length/distance data 43b;

and a display unit 48 which displays in real time a captured image as an electronic finder, or displays an already captured image based on image data stored in a memory 50,

wherein

the main control circuit 10 is provided with the image processing unit 40, the distance calculation unit 41 and the storage unit 43,

the main control circuit 10 displays the length/distance data 43b with the captured image,

a user can input a place where the user caught a fish, which is a subject, using a character string, and

the main control circuit 10 displays the input character string in a predetermined position in the captured image."

B Cited Document 2

Cited Document 2 ([0001], [0047] to [0058], and FIG. 9) describes that focal lock is released when a predetermined time passes in an imaging device, such as a silver halide camera or a digital still camera.

C Cited Document 3

Cited Document 3 ([0008]) describes a camera for which a user can select normal camera mode where the camera operates as a normal camera, distance mode where the camera measures/records a distance to a subject, or size mode where the camera measures/records the size of a subject, by operating a mode switch.

D Cited Document 4

Cited Document 4 ([0095] to [0110], FIG. 9 and Fig. 10) describes that the mode switch is implemented by a touch sensor.

E Cited Document 5

(A) Cited Document 5 describes the following matters. The underlines were added by the body.

"[0001] The present invention relates to camera-equipped electronic apparatuses such as digital cameras, mobile phones, and portable terminals, and application programs for the camera-equipped electronic apparatuses."

"[0020] (First embodiment)

<First Operational Example>

First, a user shoots a caught fish 1 together with a predetermined marker 2 by a digital camera 10 (FIG. 1(a)). In this embodiment, the marker 2 has a round shape in plan view. This is because when the planar shape of the marker 2 is round, an image of the marker 2 is easily recognized, and the size of the marker 2 in the image is equal to the diameter of the marker 2; that is, the marker 2 has a fixed dimension in the image irrespective of the orientation of the marker 2. The actual dimension (diameter in this embodiment) of the marker 2 is known to the digital camera 10 in advance.

[0021] The digital camera 10 displays a captured image P1 including both the fish 1 and the marker 2 on a display 11 after the shooting or in response to operation by the user (FIG. 1(b)). The captured image P1 includes a fish image 1A as an image of a subject and a marker image 2A. The digital camera 10 recognizes the marker image 2A in the captured image P1, and detects the size of the marker image 2A. To verify that the marker image 2A has been recognized, a verification notice may be output on a screen. In FIG. 1(b), the contour of the marker image 2A is emphasized as an example of the verification notice."

"[0023] Then, the digital camera 10 recognizes the fish image 1A in the captured image P1, and detects the size of the fish image 1A (FIG. 1(c)). The size from the tip of the head to the tip of the tail of the fish image 1A is detected. Here, a cursor al is displayed on the captured image P1, and the user moves the position of the cursor al to specify the fish image 1A. The digital camera 10 locates and recognizes the position of the fish image 1A in response to the operation by the user. Also in this case, to verify that the fish image 1A has been recognized, a verification notice may be output on the screen. In FIG. 1(c), the contour of the fish image 1A is emphasized as an example of the verification notice."

"[0026] The digital camera 10 computes the actual dimension of the fish 1 based on the actual dimension of the marker 2, the detected size of the marker image 2A, and the detected size of the fish image 1A. The actual dimension from the tip of the head to the tip of the tail of the fish 1 is computed. The computation can be performed by an easy ratio calculation. That is, the actual dimension X (cm) of the fish 1 can be obtained by the expression:

$$X=A\times C/B$$

where A (cm) is the diameter of the marker 2, B (pixels) is the number of pixels of the diameter of the detected marker image 2A, and C (pixels) is the size from the tip of the head to the tip of the tail of the fish image 1A. For example, when A=3 (cm), B=50 (pixels), and C=750 (pixels), X=45 (cm). The digital camera 10 displays a computed actual dimension a2 on the display 11 (FIG. 1(d)). Thus, the user can know the actual dimension of the photographed fish 1."

"[0050] By an image matching process, the species of a fish may be automatically determined. That is, shooting date and time are recorded together with a captured image, so that from the shooting date and time, it is possible to know the season or the time of the day in which the fish was shot. When the electronic apparatus has a GPS function, the shooting location can be recorded together with the captured image, so that from the shooting location, it is possible to know the location where the fish was shot. Of course, the shooting date and time or the shooting location may be input by a user. With reference to the shooting date and time, the shooting location, the computed actual dimension of a fish, and the fish image of the captured image, the user accesses, via the internet, a database in which, for example, information about characteristics of fishes is collected, so that the species of the fish can be determined. For example, the external shape, the pattern, etc. can be used as the characteristics of the fish image. As a result of determination, options of species having a high possibility of corresponding to the species of the fish may be shown on the display, and may be eventually selected by a user."

(B) Summarizing the description in the above (A) in Cited Document 5, Cited Document 5 describes the following matters.

"A digital camera 10 which displays a captured image P1 including both a fish 1 and a marker 2 on a display 11 when a user shoots the caught fish 1 together with the predetermined marker 2, recognizes the fish image 1A in the captured image P1, and

detects the size of the fish image 1A, computes the actual dimension of the fish 1 based on the actual dimension of the marker 2, the detected size of the marker image 2A, and the detected size of the fish image 1A, and displays a computed actual dimension a2 on the display 11,

wherein

when the digital camera 10 has a GPS function, the shooting location can be recorded together with the captured image, so that from the shooting location, it is possible to know the location where the fish was shot, or the shooting location may be input by a user."

F Cited Document 6

Cited Document 6 ([0006], [0009], [0012] to [0017], FIG. 1 and FIG. 4) describes that an electronic camera (electronic imaging camera using CCD imaging element) includes a temperature sensor 8 and an atmospheric pressure sensor for recording shooting environment information, such as ambient temperature, atmospheric pressure, water pressure, altitude, and water depth, together with a captured image.

G Cited Document 7

Cited Document 7 ([0012] to [0015] and FIG. 1) describes that an electronic camera (electronic still camera) includes weather information detection means 7 which includes a temperature sensor and an atmospheric pressure sensor, to store temperature data and atmospheric pressure data together with a captured image.

(2) Regarding Invention 1

A Comparison

(A) A combination of the "imaging element 28 which applies photoelectric conversion to light incident from the subject through a lens optical system", the "sample-hold circuit 34, an auto-gain controller 36, and an A/D circuit 37 which convert the light from the subject applied to photoelectric conversion into digital data", the "image processing unit 40 which applies processing, such as data compression, to the digital data input through the A/D circuit 37", and the "memory 50 where the image data subjected to image processing is recorded" in the "electronic camera 1" of the Cited Invention, which serves as a camera function, in its entirety, which applies photoelectric conversion to light incident from the subject through a lens optical system and converts the light into digital data to be recorded as image data subjected to processing, such as data compression, corresponds to the "camera" in Invention 1.

(B) The "first sensor" in Invention 1, which provides "distance information indicating a distance to a particular subject, based on a detection result", is considered as measuring "a distance to a particular subject".

Thus, the "distance speed calculation unit 39 which measures a distance to a subject precisely" in the Cited Invention corresponds to the "first sensor" in Invention 1.

(C) The "display unit 48" in the Cited Invention corresponds to the "display" in Invention 1.

(D) The "main control circuit 10 for controlling the whole of the camera" in the Cited Invention corresponds to the "controller" in Invention 1.

(E) Based on the above (A) to (D), the "electronic camera 1" in the Cited Invention corresponds to the "electronic device" in Invention 1.

(F) The "data on the distance to the subject" in the Cited Invention corresponds, based on the above (B), the "distance information indicating a distance to a particular subject, based on a detection result of the first sensor" in Invention 1.

The "length/distance data 43b" obtained by "marking a plurality spots from an image corresponding to the subject, measuring a length between two spots of a plane, and converting it into an actual dimension" in the Cited Invention corresponds to the "size information related to at least a portion of the particular subject included in the captured image" in Invention 1.

Therefore, the description that the "distance calculation unit 41" "arranged" in the "main control circuit 10" in the Cited Invention "generates a scale of length, which is a vertical or lateral actual size of a plane perpendicular to an optical axis in a focal distance to the subject converted based on data on the distance to the subject, to be stored in the storage unit 43 as length/distance data 43b" and "marks, when a focal point is locked, a plurality spots from an image corresponding to the subject, measures a length between two spots of a plane, and converts it into an actual dimension to be stored in the storage unit 43 as length/distance data 43b" corresponds to the description that the "controller" in Invention 1 "measures, on the basis of a captured image captured by the camera and distance information indicating a distance to a particular subject, based on a detection result of the first sensor, size information related to at least a portion of the particular subject included in the captured image".

(G) The "place where the user caught a fish, which is a subject" "input" by the "user" "using a character string", and the "sensor information" "based on a detection result of the second sensor, which is different from the first sensor", "the second sensor being a sensor for detecting information on a state of the device itself", and "including information indicating successive changes in position of the device", are identical in point of "information including position information indicating a position".

(H) According to the above (C), (D), (F), and (G), the description in the Cited Invention that the "main control circuit 10" "displays the length/distance data 43b with the captured image" and "displays the input character string in a predetermined position in the captured image", and the description in Invention 1 that the "controller" "causes an overlay image, yielded by overlaying both the size information and sensor information based on a detection result of the second sensor, which is different from the first sensor, on the captured image, to be displayed on the display", are identical in that the "controller" "causes an overlay image, yielded by overlaying both size information and information including position information indicating a position on the captured image, to be displayed on the display".

B Corresponding feature and Different feature

Summarizing the results of comparison in the above A, the Corresponding Feature and Different Feature between Invention 1 and the Cited Invention are as follows.

(A) Corresponding Feature

"An electronic device comprising a camera, a first sensor, a display, and a controller, wherein

the controller is configured to

measure, on the basis of a captured image captured by the camera and distance information indicating a distance to a particular subject, based on a detection result of the first sensor, size information related to at least a portion of the particular subject included in the captured image; and

cause an overlay image, yielded by overlaying both the size information and information including position information indicating a position on the captured image, to be displayed on the display."

(B) Different Feature

Invention 1 comprises "a second sensor different from the first sensor", the second sensor "being a sensor for detecting information on a state of the device itself". In Invention 1, the "information including position information indicating a position" is "sensor information" "based on a detection result of the second sensor", "including information indicating successive changes in position of the device".

The Cited Invention does not comprise a device corresponding to the "second sensor" in Invention 1. In the Cited Invention, the "information including position information indicating a position" is the "place where the user caught a fish, which is a subject" "input" by the "user" "using a character string".

C Judgment on the Different Feature

The "electronic camera 1" relating to the Cited Invention and the "digital camera 10" in the matters described in Cited Document 5 ((1) E (B)) are identical in a point of an electronic camera which images a fish, which is a subject, and displays a captured subject image with an actual dimension of the subject.

According to the matters described in Cited Document 5, such an electronic camera with GPS function can record a shooting position with a captured image, and allows a user to input the shooting position. Therefore, it can be said the matters described in Cited Document 5 indicate a configuration of adding a GPS function to an electronic camera to record a shooting position with a captured image. Thus, a person skilled in the art may easily conceive of adding GPS function to the "electronic camera 1" relating to the Cited Invention to record a shooting position with a captured image, based on the matters described in Cited Document 5.

Consequently, the "electronic camera 1" in the Cited Invention includes a GPS sensor (corresponding to the "second sensor different from the first sensor", which is a "sensor for detecting information on a state of the device itself" in Invention 1) in addition to the "distance speed calculation unit 39 which measures a distance to a subject precisely" (corresponding to the "first sensor" in the Amended Invention). However, information based on a result detected by the GPS sensor (corresponding to the "sensor information based on a detection result of the second sensor" in Invention 1) only indicates a shooting position (i.e., a position of the device). In the configuration of adding GPS function to the "electronic camera" relating to the Cited Invention to record a shooting position with a captured image, the information corresponding to the "sensor information based on a detection result of the second sensor" is, unlike Invention 1, not information "including position information indicating successive changes in position of the device".

An electronic camera configured to record "sensor information" "including position information indicating successive changes in position of the device" is not described or suggested in any of the Cited Documents 1 to 4, Cited Document 6, and Cited Document 7.

Furthermore, in the "electronic camera 1" relating to the Cited Invention, which records a shooting position (a position of the device) as a place where a fish, which is a subject, was caught, no circumstance is found for acquiring "sensor information" "including position information indicating successive changes in position of the device" in place of, or in addition to a shooting position. It cannot be acknowledged that the above matter is obvious to a person skilled in the art.

Therefore, it cannot be said that a person skilled in the art may easily conceive of the configuration of Invention 1 relating to the Different Feature based on the Cited Invention and the matters described in Cited Documents 1 to 7.

D Summary of Invention 1

As described above, it cannot be said that Invention 1 could have been easily invented by a person skilled in the art based on the inventions described in Cited Documents 1 to 7.

(3) Regarding Invention 2 to Invention 15

Inventions 2 to 15, which include all of the components of Invention 1, are different from the Cited Invention in at least the Different Feature ((2) B (B)) between Invention 1 and the Cited invention. As described in (2) C, it cannot be said that a person skilled in the art may easily conceive of the configuration of Invention 1 relating to the Different Feature based on the Cited Invention and the matters described in Cited Documents 1 to 7. The same applies to the configuration of Inventions 2 to 15 relating to the Different Feature.

Therefore, it cannot be said that Inventions 2 to 15 are inventions which could have been easily invented by a person skilled in the art based on the matters described in Cited Documents 1 to 7.

(4) Regarding Inventions 16 and 17

Invention 16 is an invention of a method of controlling an "electronic device" relating to Invention 1. Invention 17 is an invention of a program for causing a "controller" of an "electronic device" to execute the method relating to Invention 16. These inventions, which are different from Invention 1 only in category expression,

comprise a configuration corresponding to the configuration of Invention 1 relating to the Different Feature.

As described in (2) C, it cannot be said that the configuration of the Invention relating to the Different Feature may be easily conceived by a person skilled in the art based on the Cited invention and the matters described in Cited Documents 1 to 7. The same applies to the configuration of Inventions 16 and 17 corresponding thereto.

Therefore, it cannot be said that Inventions 16 and 17 could have been easily invented by a person skilled in the art based on the inventions described in Cited Documents 1 to 7.

No. 6 Regarding the reasons for refusal stated in the examiner's decision

1 Reason 1 (novelty)

As described in No. 5 2, Inventions 1 to 15 are different from the Cited Invention at least in the different feature ((2) B (B)) between Invention 1 and the Cited Invention, and Inventions 16 and 17 comprise the configuration corresponding to the configuration of Invention 1 relating to the Different Feature. Thus, it cannot be said that Inventions 1 to 17 are inventions described in Cited Document 1.

Therefore, the reasons for refusal stated in the examiner's decision 1 cannot be maintained.

2 Reason (inventive step)

As described in No. 5 2, it cannot be said that Inventions 1 to 17 could have been easily invented by a person skilled in the art based on the inventions described in Cited Documents 1 to 7. Thus, it cannot be said that Inventions 1 to 17 could have been easily invented by a person skilled in the art based on the inventions described in Cited Documents 1 to 4.

Therefore, the reasons for refusal stated in the examiner's decision 2 cannot be maintained.

No. 7 Closing

As described above, it cannot be said that the application should be rejected due to the reasons of the examiner's decision.

No other reason for rejecting the application is found.

Therefore, the appeal decision shall be made as described in the conclusion.

September 2, 2019

Chief administrative judge: NAKATSUKA, Naoki

Administrative judge: KOBAYASHI, Norifumi

Administrative judge: SAKURAI, Kenta