

EXHIBIT 2.10

According to a method of the present invention, said course of motion is performed on said UI by dragging an element that is displayed on said UI. Said element may
5 for instance be a small box in the right upper corner of the UI. Dragging is performed when a stylus is placed on said box to grab the box, and then is moved across the UI in order to initiate a change of the orientation of the UI. For instance, dragging the box to the right lower
10 corner may cause a change of the orientation of the UI by 90° clockwise, dragging the box to the left upper corner may cause a change of the orientation of the UI by 90° counter-clockwise, and dragging the box to the left lower corner may cause a change of the orientation of the
15 UI by 180°. Said element that is displayed on said UI may be a soft button that is already provided on said UI for other purposes, and is assigned additional functionality, i.e. to initiate the change of the orientation of said UI, only when being dragged across the UI.

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According to a method of the present invention, said element is located near the edge of the UI. Said element then does not unnecessarily cover the center part of the displayed content.

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According to a method of the present invention, said course of motion is performed on said UI by drawing a gesture on said UI. Gestures may for instance be
handwritten characters or symbols that are recognized
30 when being written on a touch-screen display or drawn on a UI by the aid of a joystick or track-ball. For each possible change of the orientation of the UI, one specific gesture may be defined. Alternatively, one

gesture, such as a circle, may be defined for the change of the orientation of the UI.

According to a method of the present invention, said
5 gesture is a circle or a part thereof. The degree of completeness of the circle and/or the direction of rotation of the circle may indicate by which angle the orientation of the UI is to be rotated. For instance, a quarter circle being drawn counter-clockwise may indicate
10 that the orientation of the UI shall be rotated by 90° counter-clockwise.

According to a method of the present invention, said detected course of motion is visualized on said UI. The
15 course of motion is then not only detected, but actively displayed on the UI, so that the user that performs the course of motion can control its accomplishment.

According to a method of the present invention, said
20 orientation of said UI is changed by 90°, 180° or 270° with respect to the device said UI is integrated in. However, depending on the shape of the UI, smaller angle steps may be advantageous. For instance, in a circular UI, rotation steps of 1° or less may be preferred.

25
According to a method of the present invention, images that are displayed on said UI are transformed and/or re-scaled according to said changed orientation. Changing the orientation of a non-square UI may require
30 transformation (for instance stretching/compressing to adapt both the height and width of an image to the height and width of the rotated UI) and/or re-scaling (to fit

either the height of an image to the height of the rotated UI or the width of an image to the width of the rotated UI) of the images in order to optimally fit the dimensions of the rotated UI.

5

According to a method of the present invention, said UI is integrated in a hand-held device, in particular a mobile phone or a Personal Digital Assistant (PDA). However, the present invention may equally well be applied to television sets or computer monitors.

10

It is proposed that a computer program comprises instructions operable to cause a processor to perform the above-mentioned method steps. Said computer program may be executed by a central processing unit of a hand-held device such as a mobile phone or a PDA.

15

It is proposed that a computer program product comprises a computer program with instructions operable to cause a processor to perform the above mentioned method steps.

20

It is proposed that a device for changing an orientation of a UI comprises means for detecting a course of motion that is performed on said display, and means for changing said orientation of said UI with respect to a device said UI is integrated in according to said detected course of motion. Said device for changing an orientation of a UI and said device in which said UI is integrated may be the same device, or may be devices in the same device, as for instance a hand-held device.

25
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According to a device of the present invention, said device for changing an orientation of a UI is integrated in a hand-held device, in particular a mobile phone or a
5 Personal Digital Assistant (PDA).

It is proposed that a mobile phone comprises at least one UI, means for detecting a course of motion that is performed on said UI, and means for changing an
10 orientation of said UI with respect to said mobile phone according to said detected course of motion. Said mobile phone may for instance comprise one large UI, for instance a display or a touch-screen display, for multimedia applications and one smaller UI for displaying
15 telephone numbers, incoming messages and the like. Said UIs may for instance be located on opposite sides of the mobile phone. The orientation of said at least one UI with respect to said mobile phone can be changed, for instance by rotating said UI with respect to said mobile
20 phone.

According to a mobile phone of the present invention, the mobile phone further comprises a UI interaction device, via which said course of motion is performed on said at
25 least one UI.

According to a mobile phone of the present invention, said at least one UI is a touch-screen display and said display interaction device is a touching device, in
30 particular a stylus.

According to a mobile phone of the present invention, said UI interaction device is a device that controls the

movement of an element on said at least one UI, in particular a track-ball or a joystick.

According to a mobile phone of the present invention,
5 said course of motion is performed on said at least one UI by dragging an element that is displayed on said at least one UI.

According to a mobile phone of the present invention,
10 said course of motion is performed on said at least one UI by drawing a gesture on said at least one UI.

According to a mobile phone of the present invention,
said mobile phone further comprises means for visualizing
15 said detected course of motion on said at least one UI.

According to a mobile phone of the present invention,
said orientation of said at least one UI is changed by
90°, 180° or 270° with respect to said mobile phone.

20 According to a mobile phone of the present invention,
the mobile phone further comprises means for
transforming and/or re-scaling images that are displayed
on said at least one UI according to said changed
25 orientation.

These and other aspects of the invention will be apparent
from and elucidated with reference to the embodiments
described hereinafter.

30

Brief description of the figures

In the figures is shown:

- 5 Fig. 1a: a first example of a change of the orientation of a UI according to the prior art;
- 10 Fig. 1b: a second example of a change of the orientation of a UI according to the prior art;
- 15 Fig. 2a: a first embodiment of a mobile phone according to the present invention, wherein a change of the orientation of a UI by 180° is initiated by dragging;
- 20 Fig. 2b: a first embodiment of a mobile phone according to the present invention, wherein a change of the orientation of a UI by 90° is initiated by dragging;
- 25 Fig. 3a: a second embodiment of a mobile phone according to the present invention, wherein a change of the orientation of a UI by 180° is initiated by drawing a gesture;
- 30 Fig. 3b: a second embodiment of a mobile phone according to the present invention, wherein

a change of the orientation of a UI by
90° is initiated by drawing a gesture;

Fig. 4: a flow chart of the method according to
5 the
present invention; and

Fig. 5: a device according to the present
invention.

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Detailed description of the invention

Fig. 2a depicts a first embodiment of a mobile phone 1
according to the present invention. On the UI 2 of the
mobile phone 1 on the left of Fig. 2a, which is
15 exemplarily assumed to be a touch-screen display, an
image is shown upside-down. Furthermore, according to the
present invention, a dragging element 5 is shown in the
right upper corner of the touch-screen display 2. The
center figure of Fig. 2a schematically depicts how a user
20 of the mobile phone 1 selects the dragging element 5, for
instance by tipping it with a stylus, and drags it to the
left lower corner of the display, as indicated by arrow
6. The mobile phone detects this course of motion 6 on
its display and changes the orientation of the display by
25 180° degrees, as shown in the right figure of Fig. 2a, so
that the image now can be viewed properly.

In Fig. 2b, the touch-screen display 2 of the mobile
phone 1 is rotated by 90° clockwise by a user by dragging
30 the dragging element 5 from the right upper corner to the
right lower corner of the display, as indicated by the
arrow 7. Whereas in the left figure of Fig. 2b, the image

can not be properly viewed on the display, in the right figure of Fig. 2b, the orientation of the touch-screen display 2 has been changed in a way that the image now can be properly viewed.

5

In Fig. 3a, text is rendered by a touch-screen display 2 of a mobile phone 1, wherein said text is upside-down (see left figure). By drawing a gesture 8 on the touch-screen display 2 of the mobile phone 1, a user can change
10 the orientation of the touch-screen display 2 by 180° degrees. In the example in the center figure of Fig. 3a, this gesture is a complete circle 8 drawn counter-clockwise. As can be seen from the right figure of Fig. 3a, after the change of the orientation of the display 2,
15 the text is in correct position and can be properly read.

Quite similarly, in Fig. 3b, text that is rotated by 90° counter-clockwise (left figure) can be read properly (right figure) by changing the orientation of the display
20 2 by 90° clockwise, wherein a half circle 9 drawn clockwise is used as a gesture (center figure).

It is apparent that the present invention allows for a convenient way of changing the orientation of a UI that
25 does not require additional hard keys on the device and that does not require to browse a menu to trigger the change of the orientation. In contrast, the input capabilities that are naturally offered by a touch-screen display or by a display on which characters or curves can
30 be drawn by using a joystick, a mouse, or a track-ball, are used. With the dragging method, at least three rotation directions can be intuitively defined, when the

dragging element is located in a corner of the UI. When the dragging element is located in the center of the UI, for instance being transparent to a certain degree in order not to cover too much of the actual content, more rotation directions may be defined. With the gesture-based method, an even more robust way of initiating the change of orientation of a UI is presented, which is in particular advantageous in mobile environments, because a simple gesture such as a circle (or approximation thereof) can always be easily and precisely drawn.

Fig. 4 depicts a flowchart of the method according to the present invention. In a first step 40, the UI is turned on, or the dragging-based or gesture-based change of orientation of the UI is activated, for instance by menu selection of the user. It is then continuously checked in a step 41 whether a course of motion is performed on the UI, either by dragging or drawing a gesture on a touch-screen display or by writing or drawing characters with a display interaction means such as a joystick or trackball. In a step 42, the orientation of the UI is then changed according to the detected course of motion. The steps 41 and 42 are continuously repeated to allow for multiple rotations of the orientation of a UI for the same displayed content or for a sequence of different content, until the UI is turned off or until the dragging-based or gesture-based change of orientation of the UI is deactivated in a step 43.

Fig. 5 depicts a device according to the present invention. The device comprises a UI 53. Image data 50 is processed by a Central Processing Unit (CPU) 51, which

may for instance be the CPU of a mobile phone. Processing may comprise converting the format of image data 50 or the like. The converted image data then is forwarded to a UI controller 52, which drives the UI 53 according to the converted image data that is output by the CPU. The UI is
5 connected to a course of motion detector 54, which detects whether any course of motion is performed on the UI 53 by a user of the mobile phone. The course of motion detector 54 may process the output signals of a touch-
10 screen display 53, or may be capable of processing the input of a display interaction device such as a joystick, track-ball or the like. Detected course of motion then is signaled to the CPU 51, which determines the angle by which the orientation of the UI has to be changed, and
15 converts the image data 50 accordingly, so that the image displayed on the UI 53 is rotated as indicated by the user of the mobile phone in his performed course of motion on the UI. Said conversion may further comprise transformation of the dimensions of the image to fit both
20 the width and height of the rotated UI, or re-scaling of the image to fit either the width or the height of the rotated UI. Image data conversion may equally well be performed by the UI controller 52 instead of the CPU 51.

25 The invention has been described above by means of embodiments. It should be noted that there are alternative ways and variations which are obvious to a skilled person in the art and can be implemented without deviating from the scope and spirit of the appended
30 claims. In particular, the invention is by no means limited to application in mobile phones or PDAs, it can also be used to change the orientation of a UI in

television sets or computer monitors. Various different kinds of visible and invisible dragging elements can be imagined for the dragging-based methods, and various kinds of segmented gestures representing different angles
5 of rotation and families of gestures, wherein each family member defines one specific angle of rotation, may be thought of. The dragging-based method and the gesture-based method are well suited for joint application in the same device.

Claims

1. A method for changing an orientation of a User Interface (UI), comprising:
 - 5 - detecting a course of motion that is performed on said UI, and
 - changing said orientation of said UI with respect to a device said UI is integrated in according to said detected course of motion.
- 10 2. The method according to claim 1, wherein said course of motion is performed on said UI via a UI interaction device.
- 15 3. The method according to claim 2, wherein said UI is a touch-screen display and wherein said UI interaction device is a touching device.
4. The method according to claim 2, wherein said UI
20 interaction device is a device that controls the movement of an element on said UI.
5. The method according to claim 1, wherein said course
25 of motion is performed on said UI by dragging an element that is displayed on said UI.
6. The method according to claim 5, wherein said element is located near an edge of the UI.
- 30 7. The method according to claim 1, wherein said course of motion is performed on said UI by drawing a gesture on said UI.

8. The method according to claim 7, wherein said gesture is a circle of a part thereof.
9. The method according to claim 1, wherein said detected
5 course of motion is visualized on said UI.
10. The method according to claim 1, wherein said orientation of said UI is changed by 90°, 180° or 270° with respect to the device said UI is integrated in.
10
11. The method according to claim 1, wherein images that are displayed on said UI are transformed and/or re-scaled according to said changed orientation.
- 15 12. The method according to claim 1, wherein said UI is integrated in a hand-held device, in particular a mobile phone or a Personal Digital Assistant (PDA).
13. A computer program stored on a data processing
20 readable medium, the computer program with instructions operable to cause a processor to perform the method steps of claim 1.
14. A computer program product stored on a data
25 processing readable medium, the computer program comprising a computer program with instructions operable to cause a processor to perform the method steps of claim 1.
- 30 15. A device for changing an orientation of a UI, comprising:

- means for detecting a course of motion that is performed on said UI, and
- means for changing said orientation of said UI with respect to a device said UI is integrated in according to said detected course of motion.

16. The device according to claim 15, wherein said device for changing an orientation of said UI is integrated in a hand-held device, in particular a mobile phone or a Personal Digital Assistant (PDA).

17. A mobile phone, comprising:

- at least one UI,
- means for detecting a course of motion that is performed on said UI, and
- means for changing an orientation of said UI with respect to said mobile phone according to said detected course of motion.

18. The mobile phone according to claim 17, further comprising a UI interaction device, via which said course of motion is performed on said at least one UI.

19. The mobile phone according to claim 18, wherein said at least one UI is a touch-screen display and wherein said UI interaction device is a touching device.

20. The mobile phone according to claim 18, wherein said UI interaction device is a device that controls the movement of an element on said at least one UI.

21. The mobile phone according to claim 17, wherein said course of motion is performed on said at least one UI by dragging an element that is displayed on said at least one UI.
- 5
22. The mobile phone according to claim 17, wherein said course of motion is performed on said at least one UI by drawing a gesture on said at least one UI.
- 10
23. The mobile phone according to claim 17, further comprising means for visualizing said detected course of motion on said at least one UI.
- 15
24. The mobile phone according to claim 17, wherein said orientation of said at least one UI is changed by 90°, 180° or 270° with respect to said mobile phone.
- 20
25. The mobile phone according to claim 17, further comprising means for transforming and/or re-scaling images that are displayed on said at least one UI according to said changed orientation.

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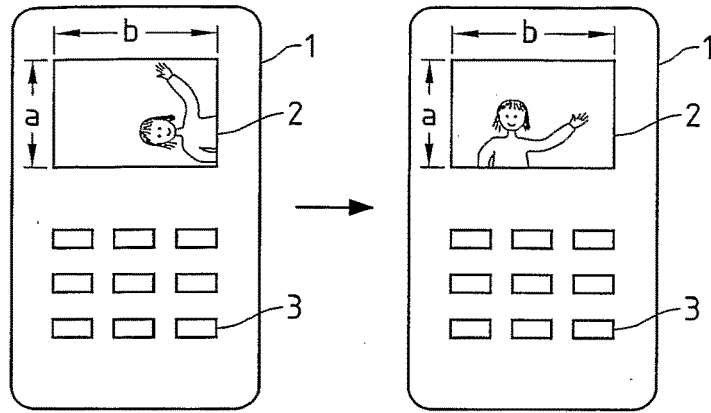


Fig.1a Prior Art

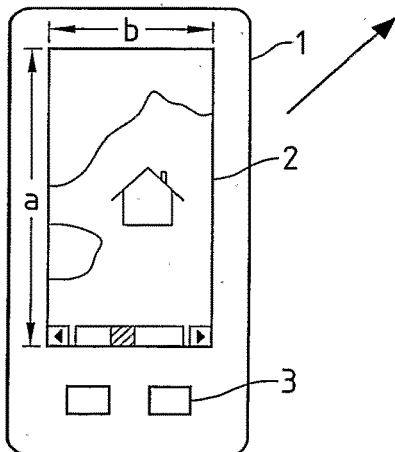
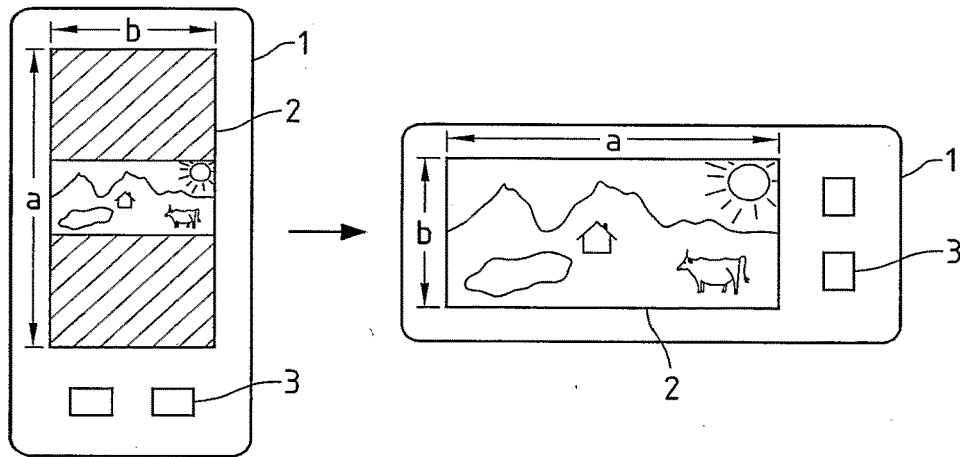


Fig.1b Prior Art

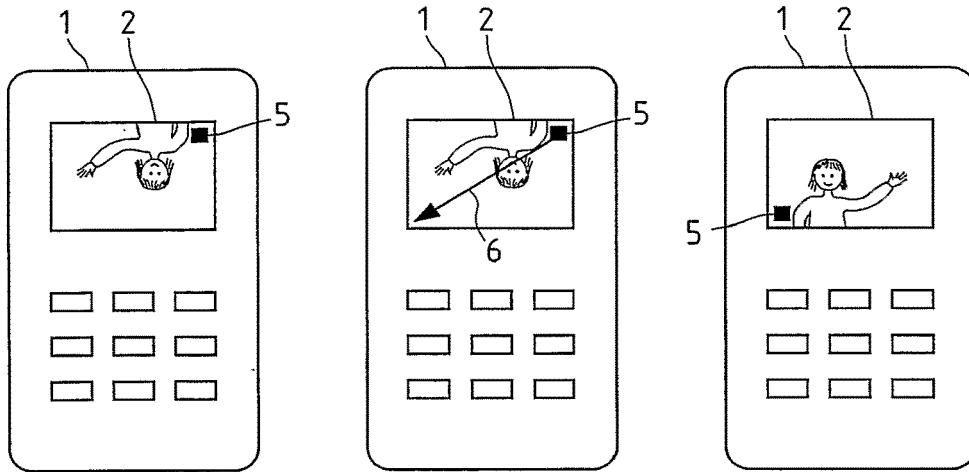


Fig.2a

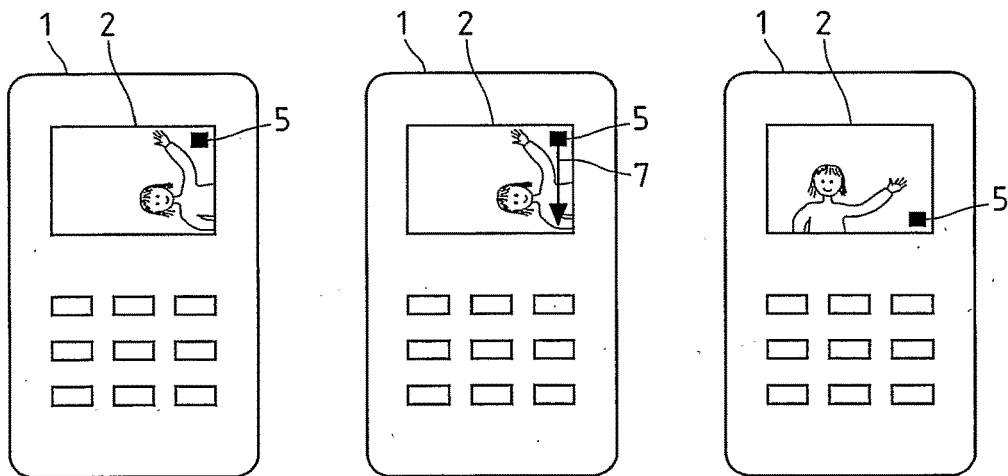


Fig.2b

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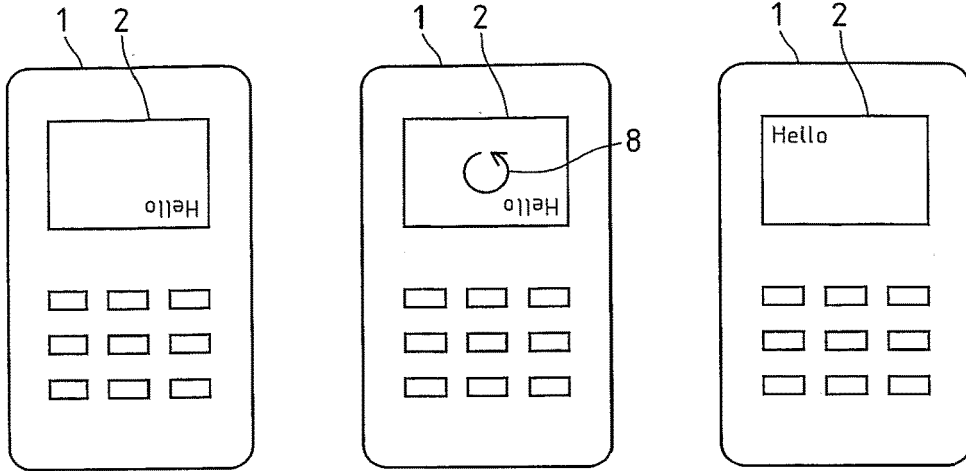


Fig.3a

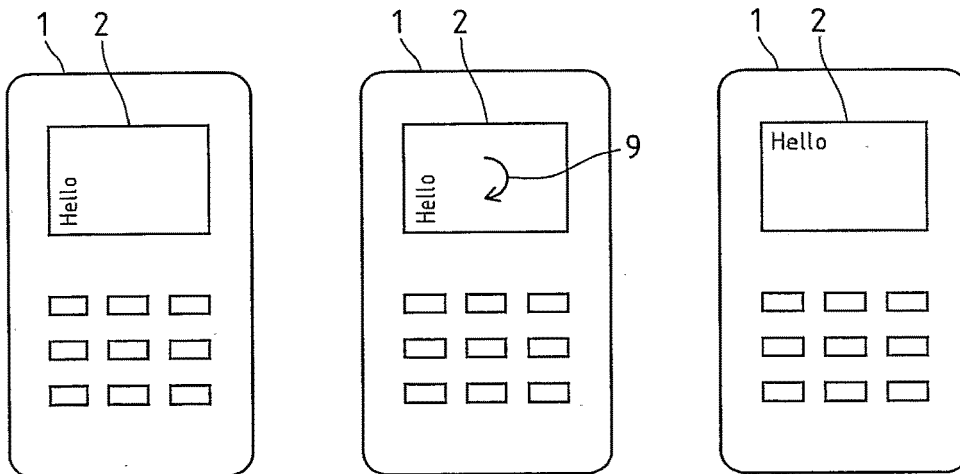


Fig.3b

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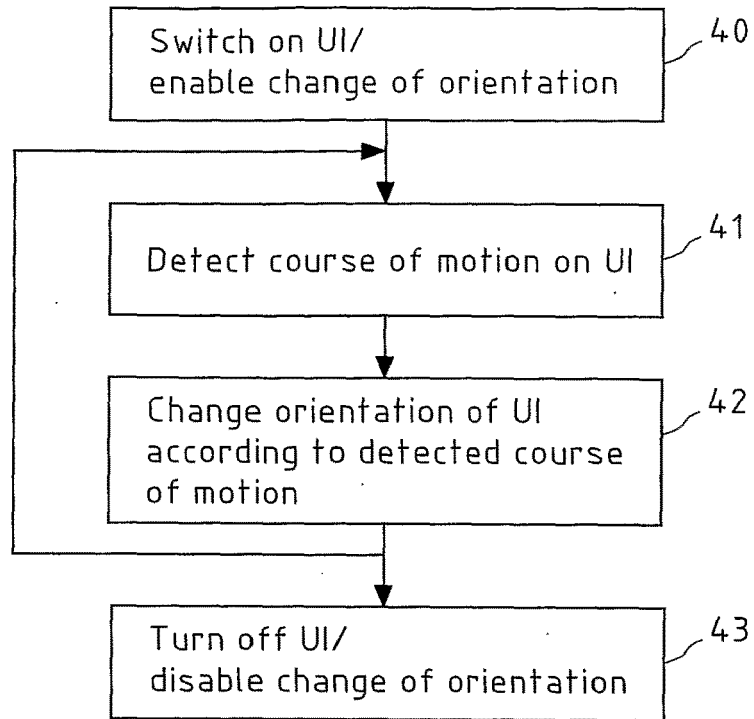


Fig.4

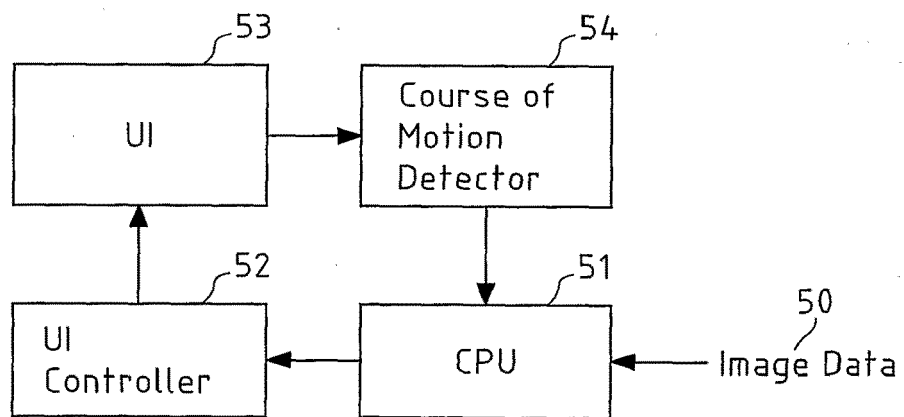


Fig.5

PATENT COOPERATION TREATY

63266-5054-WO
Gsw

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

To:
MORGAN LEWIS & BOCKIUS LLP
Attn. Williams, Gary S.
2 Palo Alto Square
3000 El Camino Real, Suite 700
Palo Alto, CA 94306
ETATS-UNIS D'AMERIQUE

(PCT Rule 44.1)

Date of mailing (day/month/year)	19/09/2008
Applicant's or agent's file reference 63266-5054WO	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US2008/050292	International filing date (day/month/year) 04/01/2008
Applicant APPLE INC.	

1. The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

For more detailed instructions, see the notes on the accompanying sheet.

2. The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-2016

Authorized officer

Stylianos Vasilakis

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SEP 26 2008

MORGAN LEWIS

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Volume I/A, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume I/A, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 63266-5054WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2008/050292	International filing date (day/month/year) 04/01/2008	(Earliest) Priority Date (day/month/year) 07/01/2007
Applicant APPLE INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- the international application in the language in which it was filed
- a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. This international search report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (see Box No III)

4. With regard to the title,

- the text is approved as submitted by the applicant
- the text has been established by this Authority to read as follows:

LIST SCROLLING AND DOCUMENT TRANSLATION, SCALING AND ROTATION ON A TOUCH-SCREEN DISPLAY

5. With regard to the abstract,

- the text is approved as submitted by the applicant
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 8C
 - as suggested by the applicant
 - as selected by this Authority, because the applicant failed to suggest a figure
 - as selected by this Authority, because this figure better characterizes the invention
- b. none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2008/050292

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

In accordance with some embodiments, a computer-implemented method for use in conjunction with a device (100) with a touch screen display (112) is disclosed. In the method, a movement (3925) of an object on or near the touch screen display (112) is detected. In response to detecting the movement (3925), an electronic document (3912) displayed on the touch screen display (112) is translated in a first direction (3928-2). If an edge of the electronic document (3912) is reached while translating the electronic document (3912) in the first direction (3928-2) while the object is still detected on or near the touch screen display (112), an area (3930) beyond the edge of the document (3912) is displayed. After the object is no longer detected on or near the touch screen display (112), the document (3912) is translated in a second direction (3928-1) until the area (3930) beyond the edge of the document is no longer displayed.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/050292

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F3/048 H04M1/725

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/021676 A1 (CHEN HUNG-MING [TW] ET AL) 5 February 2004 (2004-02-05) the whole document	1-22
Y	WO 03/060622 A (KONINKL PHILIPS ELECTRONICS NV [NL]) 24 July 2003 (2003-07-24) the whole document	23-42
Y	TIDWELL ET AL: "Designing Interfaces" 20051101, 1 November 2005 (2005-11-01), XP002478404 Section "85. magnetism"	1-42, 48-62
	----- -/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

9 September 2008

Date of mailing of the international search report

19/09/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
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Authorized officer

Kanlis, Angelos

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/050292

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006/020305 A (APPLE COMPUTER [US]; HOTELLING STEVE [US]; STRICKON JOSHUA A [US]; HUP) 23 February 2006 (2006-02-23) page 24, line 1 - page 28, line 10 figures 10-15C	1-42
A	WO 02/01338 A (INTEL CORP [US]; MILLER ALYSON [US]; MERRILL CINDY [US]; LUNDELL JAMES) 3 January 2002 (2002-01-03) page 3, line 5 - page 4, line 12 figures 2-4	1-42
Y	US 2006/025218 A1 (HOTTA TAKUJI [JP]) 2 February 2006 (2006-02-02) paragraphs [0050], [0058], [0083], [0091], [0109] - [0111], [0130] - [0132], [0140]; figures 1,4,10-12,14,20	43-47
Y	US 2003/184525 A1 (TSAI ALEX [TW]) 2 October 2003 (2003-10-02) paragraphs [0020] - [0030]; figures 2A-3	43-47
A	WO 2005/052773 A (NOKIA CORP [FI]; FABRITIUS HENNA [FI]) 9 June 2005 (2005-06-09) page 13, line 6 - page 15, line 23 figures 3a-5	43-47
Y	US 2004/155888 A1 (PADGITT DAVID GARY [US] ET AL) 12 August 2004 (2004-08-12) paragraphs [0012], [0020] - [0024], [0026]; figures 1-12	48-73
Y	EP 0 701 220 A (ADOBE SYSTEMS INC [US]) 13 March 1996 (1996-03-13) page 8, lines 3-26 figure 4c	63-73
A	WO 2006/003591 A (KONINKL PHILIPS ELECTRONICS NV [NL]; PHILIPS CORP [US]; HOLLEMANS GERA) 12 January 2006 (2006-01-12) page 4, line 31 - page 5, line 25 figures 2-4	63-73

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/050292

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-42

Translating an electronic document or list of items in response to gestures on a touch screen display.

2. claims: 43-47

Executing rotation commands in response to a multifinger twisting gesture on a touch screen display.

3. claims: 48-73

Scaling of an electronic document in response to a gesture on a touch screen display.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/050292

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004021676 A1	05-02-2004	TW 591488 B	11-06-2004
WO 03060622 A	24-07-2003	AU 2002367041 A1 CN 1695105 A EP 1459165 A2 JP 2005515530 T US 2003122787 A1 US 2004125088 A1	30-07-2003 09-11-2005 22-09-2004 26-05-2005 03-07-2003 01-07-2004
WO 2006020305 A	23-02-2006	DE 202005021427 U1 DE 202005021492 U1 EP 1774429 A2 JP 2008508601 T KR 20070039613 A	14-02-2008 08-05-2008 18-04-2007 21-03-2008 12-04-2007
WO 0201338 A	03-01-2002	AU 6830201 A EP 1295198 A1 TW 525080 B US 6912694 B1	08-01-2002 26-03-2003 21-03-2003 28-06-2005
US 2006025218 A1	02-02-2006	JP 2006034754 A	09-02-2006
US 2003184525 A1	02-10-2003	NONE	
WO 2005052773 A	09-06-2005	CN 1882905 A EP 1687701 A2 KR 20060091321 A US 2005114788 A1	20-12-2006 09-08-2006 18-08-2006 26-05-2005
US 2004155888 A1	12-08-2004	NONE	
EP 0701220 A	13-03-1996	CA 2154951 A1 DE 69521575 D1 DE 69521575 T2 JP 3818683 B2 JP 8190547 A US 5634064 A	13-03-1996 09-08-2001 16-05-2002 06-09-2006 23-07-1996 27-05-1997
WO 2006003591 A	12-01-2006	EP 1763732 A2 JP 2008505382 T KR 20070026659 A	21-03-2007 21-02-2008 08-03-2007

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2008/050292

International filing date (day/month/year)
04.01.2008

Priority date (day/month/year)
07.01.2007

International Patent Classification (IPC) or both national classification and IPC
INV. G06F3/048 H04M1/725

Applicant
APPLE INC.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Kanlis, Angelos

Telephone No. +49 89 2399-6028



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2008/050292

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - on paper
 - in electronic form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in electronic form.
 - furnished subsequently to this Authority for the purposes of search.
4. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. IV Lack of unity of invention

1. In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- paid additional fees
 - paid additional fees under protest and, where applicable, the protest fee
 - paid additional fees under protest but the applicable protest fee was not paid
 - not paid additional fees
2. This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- complied with
 - not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- all parts.
 - the parts relating to claims Nos.

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-73</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-73</u>
Industrial applicability (IA)	Yes: Claims	<u>1-73</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2008/050292

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item IV.

1. The separate inventions/groups of inventions are:

Claims 1-42

Translating an electronic document or list of items in response to gestures on a touch screen display.

Claims 43-47

Executing rotation commands in response to a multifinger twisting gesture on a touch screen display.

Claims 48-73

Scaling of an electronic document in response to a gesture on a touch screen display.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The use of gestures on a touch screen display for translation, rotation and scaling is known, e.g., from document WO2006/020305 (see, e.g., figures 13A-13D, 15A-15C, 11A-11H respectively and the associated text of the description).

The remaining features (i.e., special technical features in the sense of Rule 13.2 PCT) of the independent claims, in particular claims 2, 43 and 63, relate to a) translating in a second direction for aligning a document's edge with an edge of a display region, b) executing a 90° or reverse rotation command, depending on the degree of rotation of the gesture and c) displaying a portion of an electronic document in a predefined magnification, i.e., they relate to different aspects, each peculiar to translation, rotation or scaling respectively.

In conclusion, the groups of claims are not linked by common or corresponding special technical features and define three different inventions not linked by a single general inventive concept.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

Re Item V.

2. Reference is made to the following documents:

D1: US 2004/021676 A1

D2: J. Tidwell: "Designing Interfaces"

D3: WO 03/060622 A

D4: US 2006/025218 A1

D5: US 2003/184525 A1

D6: US 2004/155888 A1

D7: EP-A-0 701 220

3. INDEPENDENT CLAIM 2

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 2 does not involve an inventive step in the sense of Article 33(3)PCT.

Document D1 discloses a computer-implemented method (see D1: figure 2), comprising:

- at a device (see D1: reference sign 10) with a touch screen display (see D1: reference sign 11),
- detecting a movement of an object (see D1: reference sign 121) on the touch screen display (see D1: step S202); and
- in response to detecting the movement, translating an electronic document (see D1: paragraph [0021] and figure 3A) displayed on the touch screen display in a first direction (see D1: steps S204 and S207).

Document D1 discloses that, when an edge of the document is reached (as can be understood from D1: paragraph [0024], "*When the view window page 31 moves along a scrolling direction requested by the user, the path... comprises a plurality of scrolling*

signals", paragraph [0026], "*If... the view window page 31 has been scrolled to the end (or the top)*" and step S208), translation of the document is stopped (see D1: paragraph [0026], "*the view window page 31 will not be scrolled further (the moveable distance is zero)*" and step S208), hence the edge of the document remains aligned with the edge of the view window.

The subject matter of claim 2 differs from the disclosure of document D1 in that the document is allowed to be translated beyond its edge, which is then aligned with the edge of the view window, when the finger movement is no longer detected.

It is not clear what technical problem is solved by these features. The application identifies the problem to be solved as implementing the translation in such a way as to reflect the user's intent (see paragraph [0005] of the description of the present application). However, it is clear from the wording of claim 2, that "the object is still detected on the touch screen display", even after "an edge of the electronic document being reached", that the user's intent is not to align the document's edge with that of the view window but to keep translating the electronic document beyond its edge; hence, the aforementioned features go against the user's intent.

Assuming that the objective is to maximize the document area displayed in the view window, this is achieved by the alignment of the document's edge with that of the view window, i.e., by the features disclosed in document D1, and the additional features of claim 2 identified above represent a visual effect that does not solve any technical problem; hence, they do not add anything of inventive significance to the subject matter of claim 2, since they are readily derived from the visual-design requirements, i.e., the specifications provided to the skilled person, without requiring the exercise of inventive skill.

On the other hand, if the technical objective is identified as enabling the user to align the edge of the document with that of the view window without the need to perform precise input operations on the touch screen, then the aforementioned features of claim 2 correspond to a well-known technique of user-interface design (see D2: section "85. Magnetism": "*Magnetism helps compensate for users' lack of perfect dexterity with a*

mouse"; "When a user drags an object close to another object's edge, make it snap to the other object", "Objects that can be 'magnetic' might include... Canvas edges, margins, and screen edges").

Since, depending on the definition of the objective, the additional features defined in claim 2 either do not serve to solve a technical problem (i.e., they are pure design options) or correspond to a known user-interface design technique, the subject matter of claim 2 does not involve an inventive step in the sense of Article 33(3) PCT.

4. INDEPENDENT CLAIM 1

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.

The additional features defined in independent claim 1 are also known either from document D1 or from the general knowledge of the person skilled in the art of user-interface design. In particular, document D1 discloses a portable multifunction device (see D1: paragraph [0020], "*tablet PC*" and "*PDA*") and the use of a finger for interacting with the touch screen display (see D1: paragraph [0020], "*via a finger of a user*"), while providing a visually distinct area beyond the edge of the document is known from popular electronic-document viewers, such as Microsoft Word and Adobe Acrobat Reader. Finally, it is obvious that the translation in the second direction has to be in a direction opposite the first (in order to cancel the initial translation beyond the edge of the electronic document) and simulating a damped motion is a matter of visual-design nature that is part of the specification and not the solution of a technical problem.

As a consequence, the subject matter of independent claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

5. INDEPENDENT CLAIMS 23, 24

The present application does not meet the criteria of Article 33(1) PCT, because the

subject matter of claims 23 and 24 does not involve an inventive step in the sense of Article 33(3)PCT.

The subject matter of independent claims 23 and 24 corresponds to that of claims 1 and 2, wherein the translated object is a list of items instead of an electronic document. Document D3 discloses scrolling a list of items in response to finger gestures on a touch screen (see D3: figure 1 and page 4, line 29-page 5, line 10), wherein scrolling is stopped when an end of the list of items is reached (see D3: page 2, lines 10-14).

As a consequence, the argumentation presented above in connection with the subject matter of claims 1 and 2 is also valid for the subject matter of claims 23 and 24, using document D3 in lieu of document D1.

6. INDEPENDENT CLAIM 43

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 43 does not involve an inventive step in the sense of Article 33(3)PCT.

Document D4 discloses a computer-implemented method (see, e.g. D4: figures 14 and 20), comprising:

- at a device (see D4: reference sign 10) with a touch screen display (see D4: reference sign 14 and figure 22, as well as paragraphs [0058] and [0140]),
- detecting a multifinger twisting gesture on or near the touch screen display (see D4: step S5), wherein the multifinger twisting gesture has a corresponding degree of rotation (see D4: figure 4 and paragraph [0083]);
- if the corresponding degree of rotation exceeds a predefined degree of rotation (see D4: paragraphs [0091], [0110], [0111], [0130], [0131], " θ_1 " or " θ_2 "), executing a special action (see D4: step S103 or S107, as well as paragraphs [0110], [0111], [0130], [0131], "*first special action*" or "*second special action*"); and
- if the corresponding degree of rotation is less than the predefined degree of rotation, executing a screen rotation command with an acute angle of rotation (see D4: step S109, as well as paragraph [0132]).

The subject matter of independent claim 43 differs from the disclosure of document D4 in that the special action is a 90° screen rotation command and that a screen rotation command with an angle of rotation opposite to the acute angle is executed upon ceasing to detect the multifinger twisting gesture while the corresponding degree of rotation is less than the predefined degree of rotation.

However, it is evident that the "special action" mentioned in document D4 will be dictated by the nature and requirements of the particular software application and being a "90° screen rotation command", as defined in claim 43, is an implementation detail that comes from the specifications provided to the skilled person and not from the solution of a technical problem. Furthermore, the reverse screen rotation does not serve to solve any technical problem either, certainly not the problem mentioned in paragraph [0005] of the description of the present application, since the user's intent is obviously not to return to the original orientation (see also section 3 above).

At this juncture, it should also be noted that the end result of the method of claim 43 is that rotation is performed either with a 90° angle or not at all, depending on whether the rotation angle exceeds a predefined threshold or not; in other words, only orientation changes at 90° intervals are allowed.

Document D5 discloses such a setup, wherein desired orientations have directions of 0°, 90°, 180° and 270° (see D5: paragraph [0022]) and the determined rotation angle (see D5: paragraphs [0022]-[0024] and step 34) may result only in a rotation towards one of the predefined orientations (see, e.g., D5: figures 2A-2C). It is obvious that, in a setup such as that of document D5, the method of document D4 will result in a 90° rotation or a restoration of the original orientation, i.e., rotation with an angle opposite to the acute angle, while the transition towards the final orientation (i.e., being a smooth transition or a jump) is a matter of design.

As a consequence, the subject matter of independent claim 43 does not involve an inventive step in the sense of Article 33(3) PCT.

7. INDEPENDENT CLAIM 63

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 63 does not involve an inventive step in the sense of Article 33(3)PCT.

Document D6 discloses a computer-implemented method of displaying an electronic document (see D6: paragraph [0020], *"jigsaw puzzle-like topographical map"*), comprising:

- at a device (see D6: reference sign 10) with a touch screen display (see D6, reference sign 12 and paragraph [0012], last sentence, *"touch screen"*),
- displaying a first portion of the electronic document at a first magnification (see D6: figure 2 and paragraph [0020]);
- detecting a gesture on or near the touch screen display corresponding to a command to zoom in by a user-specified amount (see D6: paragraph [0024], *"A zooming-in operation may also be performed by the consumer tapping, for example twice, within the display of images displayed on a touch screen display"*); and
- in response to detecting the gesture, displaying decreasing portions of the electronic document at increasing magnifications until a predefined magnification is reached (see D6: paragraph [0026], *"Zooming may continue in this manner until the "lowest" parameter is reached or a level is reached where the graphical details of the images are very discernable, i.e., the system reaches the maximum zoom-in level where even the labels provided to images including generic images are discernable"* and paragraph [0023], *"when the maximum zoom-in level is reached, the zoom-in button 32 may be grayed, faded, or the like to indicate that no further zooming-in is permitted"*).

The subject matter of claim 63 differs from the disclosure of document D6 in that zooming in is allowed even after the predefined magnification is reached, whereas, upon termination of the gesture, the magnification of the displayed document reverts to the predefined magnification.

For the same reasons explained in section 3 above, it is not clear what technical problem these features solve. They certainly do not solve the problem identified in the present application (i.e., implementing the scaling in such a way as to reflect the user's intent; see paragraph [0005] of the description of the present application), since it is evident

from the wording of claim 63 that the user's intent is to keep zooming in even after the predefined magnification is reached.

If the objective is to display as much of the document as possible, while the document is still readable, this is achieved by setting the magnification to the maximum zoom-in level, i.e., the method of document D6 (see, e.g., D6: paragraph [0026], "*maximum zoom-in level where even the labels provided to images including generic images are discernable*") and the additional features of claim 63 identified above represent a visual effect that does not solve any technical problem; hence, they do not add anything of inventive significance to the subject matter of claim 63 and they are readily derived from the visual-design requirements, i.e., the specifications provided to the skilled person, without requiring the exercise of inventive skill.

Finally, it should also be noted that automatically setting the current zoom to a maximum amount of magnification at which reading is comfortable is also disclosed in document D7 (see D7: page 8, lines 10-26). Thus, even if no restriction were imposed on the magnification in document D6 (i.e., it were allowed to exceed the maximum zoom-in level), the skilled person would be aware of the benefits provided by the automatic adjustment of the magnification to the maximum zoom-in level and would readily incorporate this in the method of document D6, so that no precise input operation by the user be required, thus arriving at the definition of present claim 63.

As a consequence, the subject matter of independent claim 63 does not involve an inventive step in the sense of Article 33(3) PCT.

8. INDEPENDENT CLAIM 48

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 48 does not involve an inventive step in the sense of Article 33(3)PCT.

The method defined by independent claim 48 corresponds to that of claim 63, wherein the scaling operation relates to a zoom-out process. Document D6 is also concerned

with zooming out up to a maximum zoom-out level (see D6: paragraph [0023], "*When the maximum zoom-out level is reached, the zoom-out button 30 may be grayed, faded, or the like to indicate that no further zooming-out is permitted in that direction*") where the electronic document is entirely displayed (see D6: paragraph [0021], "*At the maximum out zoom level, i.e., the view using the topographical map*" and figure 2).

Since the zoom-out button of document D6 (see D6: reference sign 32) appears as a virtual button on the touch screen display (see D6: figure 2-6), the "gesture on or near the touch screen display corresponding to a command to zoom out" defined in claim 48 can be assumed to correspond to the mere interaction with this virtual button (see D6: paragraph [0023], "*To indicate a desire to cause the display to provide a zoomed-in or zoomed-out view of the images, the consumer may interact with either a zoom-in button 30 or zoom-out button 32 that is provided with the graphical user interface*"). Furthermore, a gesture similar to that used for the zooming-in operation (see D6: paragraph [0024], "*A zooming-in operation may also be performed by the consumer tapping, for example twice, within the display of images displayed on a touch screen display*") can be contemplated.

Hence, the subject matter of claim 48 essentially differs from the disclosure of document D6 in that the document is allowed to be zoomed out beyond the maximum zoom-out level and is then displayed at the maximum zoom-out level, when the gesture is terminated.

For the reasons explained in sections 7 and 3 above, no technical problem solved by these features can be identified. In other words, the additional features of claim 48 identified above represent a visual effect and are readily derived from the visual-design requirements, i.e., the specifications provided to the skilled person, without requiring the exercise of inventive skill.

Even if the technical objective is identified as enabling the user to take advantage of the full real estate of the display without the need to perform precise input operations, then the aforementioned additional features of claim 48 represent just another form of "magnetism", a well-known technique of user-interface design (see D2: section "85.

Magnetism": "*Magnetism helps compensate for users' lack of perfect dexterity with a mouse*", "*When a user drags an object close to another object's edge, make it snap to the other object*", "*Objects that can be 'magnetic' might include... Canvas edges, margins, and screen edges*").

As a consequence, the subject matter of independent claim 48 does not involve an inventive step in the sense of Article 33(3) PCT.

9. INDEPENDENT CLAIMS 19-22, 39-42, 45-47, 59-62, 70-73

Since the subject matter of each of independent claims 19-22, 39-42, 45-47, 59-62, 70-73 corresponds to the subject matter of at least one of claims 2, 24, 43, 48 and 63, the same reasoning as given for claims 2, 24, 43, 48 and 63 will apply mutatis mutandis.

10. DEPENDENT CLAIMS 3-18, 25-38, 44, 49-58, 64-69

Dependent claims 3-18, 25-38, 44, 49-58, 64-69 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT).

Re Item VII.

11. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents D1-D3 is not mentioned in the description, nor are these documents identified therein.
12. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Possible steps after receipt of the international search report (ISR) and written opinion of the International Searching Authority (WO-ISA)

General information

For all international applications filed on or after 01/01/2004 the competent ISA will establish an ISR. It is accompanied by the WO-ISA. Unlike the former written opinion of the IPEA (Rule 66.2 PCT), the WO-ISA is not meant to be responded to, but to be taken into consideration for further procedural steps. This document explains about the possibilities.

Amending claims under Art. 19 PCT

Within 2 months after the date of mailing of the ISR and the WO-ISA the applicant may file amended claims under Art. 19 PCT directly with the International Bureau of WIPO. The PCT reform of 2004 did not change this procedure. For further information please see Rule 46 PCT as well as form PCT/ISA/220 and the corresponding Notes to form PCT/ISA/220.

Filing a demand for international preliminary examination

In principle, the WO-ISA will be considered as the written opinion of the IPEA. This should, in many cases, make it unnecessary to file a demand for international preliminary examination. If the applicant nevertheless wishes to file a demand this must be done before expiry of 3 months after the date of mailing of the ISR/ WO-ISA or 22 months after priority date, whichever expires later (Rule 54bis PCT). Amendments under Art. 34 PCT can be filed with the IPEA as before, normally at the same time as filing the demand (Rule 66.1 (b) PCT).

If a demand for international preliminary examination is filed and no comments/amendments have been received the WO-ISA will be transformed by the IPEA into an IPRP (International Preliminary Report on Patentability) which would merely reflect the content of the WO-ISA. The demand can still be withdrawn (Art. 37 PCT).

Filing informal comments

After receipt of the ISR/WO-ISA the applicant may file informal comments on the WO-ISA directly with the International Bureau of WIPO. These will be communicated to the designated Offices together with the IPRP (International Preliminary Report on Patentability) at 30 months from the priority date. Please also refer to the next box.

End of the international phase

At the end of the international phase the International Bureau of WIPO will transform the WO-ISA or, if a demand was filed, the written opinion of the IPEA into the IPRP, which will then be transmitted together with possible informal comments to the designated Offices. The IPRP replaces the former IPEA (international preliminary examination report).

Relevant PCT Rules and more information

Rule 43 PCT, Rule 43bis PCT, Rule 44 PCT, Rule 44bis PCT, PCT Newsletter 12/2003, OJ 11/2003, OJ 12/2003

Bitte beachten Sie, dass angeführte Nichtpatentliteratur (wie z. B. wissenschaftliche oder technische Dokumente) je nach geltendem Recht dem Urheberrechtsschutz und/oder anderen Schutzarten für schriftliche Werke unterliegen könnte. Die Vervielfältigung urheberrechtlich geschützter Texte, ihre Verwendung in anderen elektronischen oder gedruckten Publikationen und ihre Weitergabe an Dritte ist ohne ausdrückliche Zustimmung des Rechtsinhabers nicht gestattet.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	Bas Ording	Confirmation No.:	8460
Serial No.:	11/956,969	Art Unit:	2174
Filed:	December 14, 2007	Examiner:	Pesin, Boris M.
For:	<i>List Scrolling and Document Translation, Scaling, and Rotation on a Touch-Screen Display</i>	Attorney Docket No.:	P4304US1/63266-5054US

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:
 - 1a. A list of all patents, publications, applications, or other information submitted for consideration by the office.
 - 1b. A legible copy of :
 - Each foreign patent;
 - Each publication or that portion which caused it to be listed on the PTO-1449;
 - For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
 - all other information or portion which caused it to be listed on the PTO-1449.
 - 1c. An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
 - 1d. Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.

2. This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):
- Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
 - Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
 - Before the mailing of the first Office action on the merits;
 - Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.

3. This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.

(Check either Item 3a or 3b)

- 3a. The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b. The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:
- enclosed
 - to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no.).

(Item 3b to be checked if any reference known for more than 3 months)

4. This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.

(Check either Item 4a or 4b)

- 4a. The Certification Statement in Item 5 below is applicable.
- 4.b The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:
- enclosed.
 - to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no.).

5. Certification Statement (applicable if Item 3a or Item 4a is checked)

(Check either Item 5a, 5b or 5c)

- 5a. In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b. In accordance with 37 C.F.R. §1.97(e)(2), it is certified that no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application,

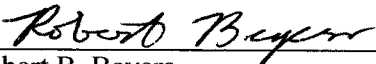
and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

- 5c. Pursuant to 37 C.F.R. §1.704(d), each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not **received** by any individual designated in 37 C.F.R. §1.56(c) more than thirty days prior to the filing of this information disclosure statement.
6. Copies of each cited U.S. patent and each U.S. patent application publication are not enclosed pursuant to the USPTO OG Notice dated 05 August 2003 waiving the requirement under 37 C.F.R. 1.98(a)(2)(i) for U.S. patent applications filed after June 30, 2003.
7. This application is a continuation application under 37 C.F.R. §1.53(b) or (d).
(Check appropriate Items 7a, 7b and/or 7c)
- 7a. A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.
- 7b. Copies of publications listed on Form PTO-1449 from prior application Serial No. _____, filed on _____, of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).
- 7c. Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. _____, filed on _____, and are provided herewith.
8. This is a Supplemental Information Disclosure Statement. (Check Item 8a)
- 8a. This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on _____. A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on _____.
9. In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:
(Check Item 9a, 9b, or 9c)
- 9a. satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.
- 9b. set forth in the application.
- 9c. enclosed as an attachment hereto.
10. The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no. 63266-5054-US).

11. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully submitted,

Date: October 6, 2008


Robert B. Beyers 46,552
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Palo Alto, CA 94306
(650) 843-4000



UNITED STATES PATENT AND TRADEMARK OFFICE

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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/956,969 12/14/2007 Bas Ording P4304US1/63266-5054US 8460

61725 7590 10/20/2008
MORGAN LEWIS & BOCKIUS LLP/ AI
2 PALO ALTO SQUARE
3000 EL CAMINO REAL
PALO ALTO, CA 94306

EXAMINER

PESIN, BORIS M

ART UNIT PAPER NUMBER

2174

MAIL DATE DELIVERY MODE

10/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Examiner-Initiated Interview Summary	Application No. 11/956,969	Applicant(s) ORDING, BAS	
	Examiner BORIS PESIN	Art Unit 2174	

All Participants:

(1) BORIS PESIN.

(2) Robert Beyers.

Status of Application: _____

(3) Cindi Wheeler.

(4) _____.

Date of Interview: 30 June 2008

Time: 4:30

Type of Interview:

- Telephonic
 Video Conference
 Personal (Copy given to: Applicant Applicant's representative)

Exhibit Shown or Demonstrated: Yes No

If Yes, provide a brief description: .

Part I.

Rejection(s) discussed:

The Examiner with regards to the claims.

Claims discussed:

All

Prior art documents discussed:

Photo Mesa, Jaeger (US 2004/0027398), Zimmerman et al. (US 6690387)

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

Part III.

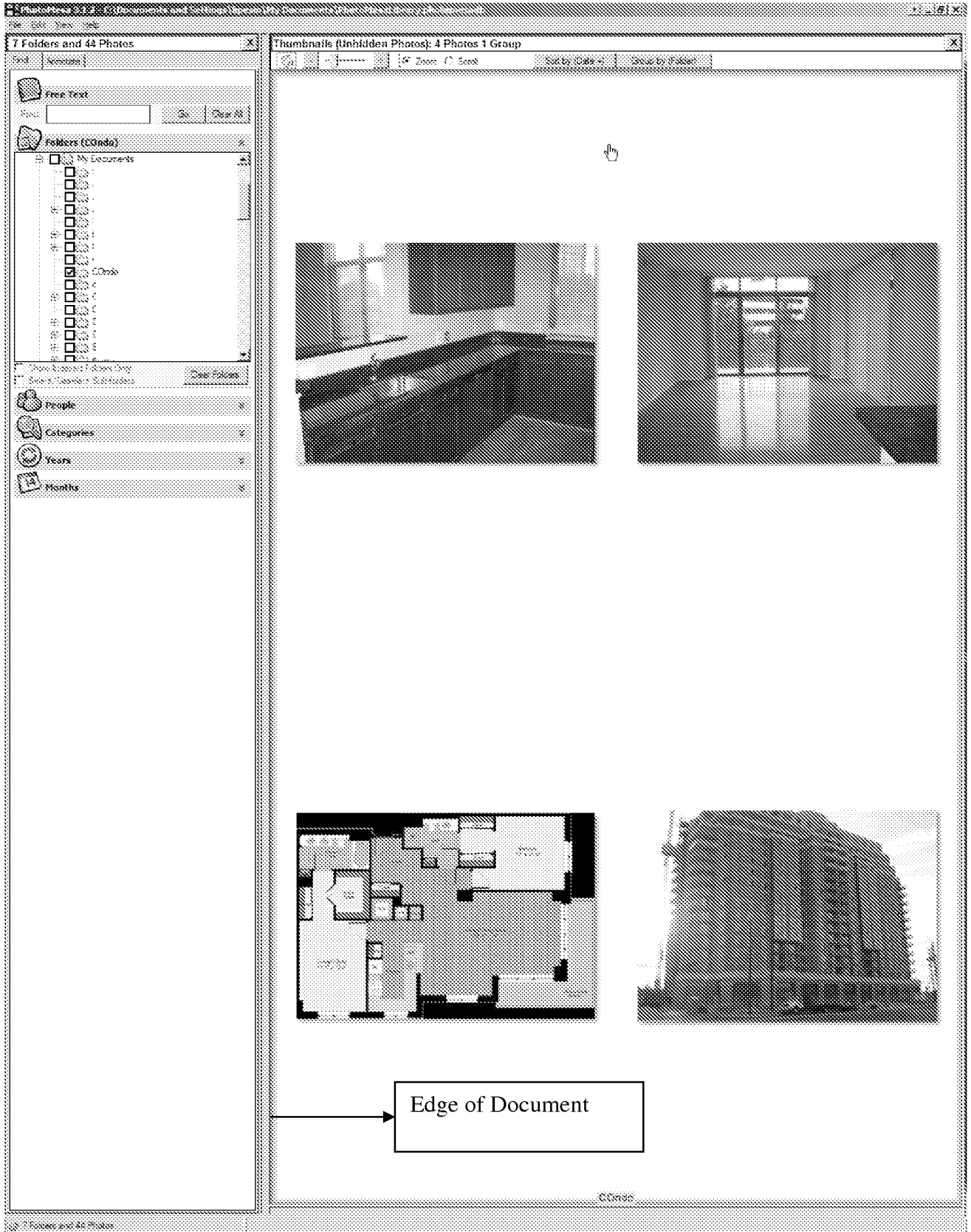
- It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.
- It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

/Boris Pesin/
Examiner, Art Unit 2174

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed: The Examiner explained (see attached explanation) how the prior art found teaches the claimed subject matter. The Applicant requested to propose amendments to the claims in order to overcome the cited art. The Examiner informed the Applicant that he will further examine the claims when the Applicant sends in the proposed amendments and will schedule another interview to discuss if the proposed amendments overcome the cited art. .

Photo Mesa Screen Shots
Figure 1



Edge of Document

Figure 2

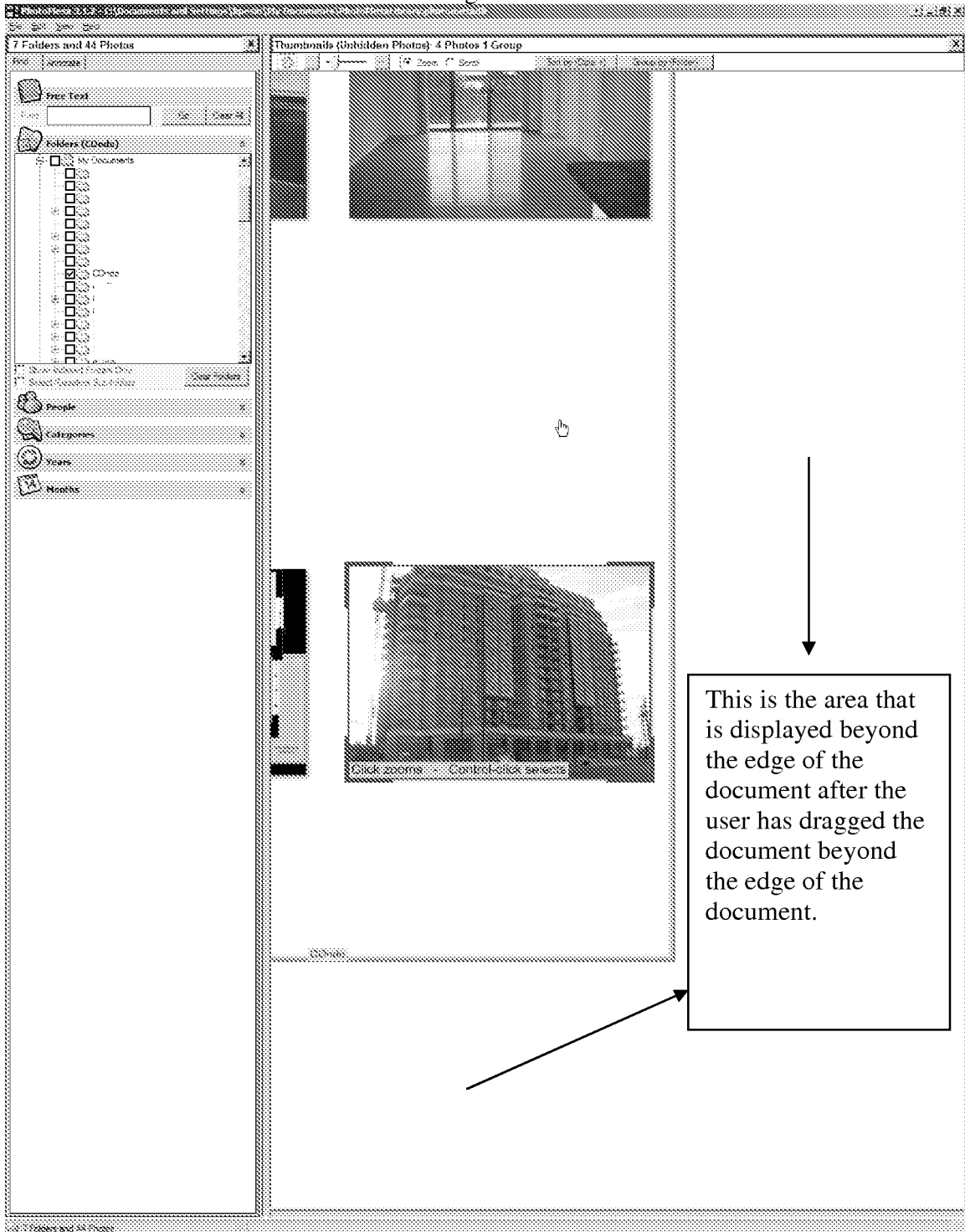


Figure 3

If the user presses the “home” button the document will slide back to the original position and thus the “area beyond the edge of the document” will no longer be displayed

