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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 03/06/2008 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			03/06/2008	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.

Office Action Summary	Application No. 10/723,778	Applicant(s) DACOSTA ET AL.	
	Examiner Regina Liang	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-23 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 16-23, 26-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/08 has been entered. Claims 1-13, 16-23, 26-32 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 6 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Fig. 3 and section [0050] of the specification discloses “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. If the change in pseudo pressure is less than or equal to the threshold, the processor (106) returns to step 302 in the process. If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324, if so, the processor (106) concludes that the user is pressing 326 and the processor (106) returns to step 302 in the process”. In step 322, the specification discloses the change in pseudo pressure is compared to **a threshold value**. Although the specification discloses in steps 302 and 306 of Fig. 3, comparing the pressure signal to an upper threshold and to a lower threshold, respectively, the specification does not disclose in step 322 that the change in pseudo pressure is compared to a first pressure threshold value and a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value. Therefore, the specification does not provide support for “comparing to a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value” as claimed in claims 6 and 20

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 as being non-statutory because claims although claim a computer-readable

medium on which is encoded programming code, however, page 8, [0024] of the specification discloses "Embodiments of computer-readable media include, but are not limited to, an electronic, optical, magnetic, or other storage or transmission device capable of providing a processor, ... Also, various other forms of computer-readable media may transmit or carry instructions to a computer, including a router, private or public network, or other transmission device or channel, both wired and wireless", in light of the definition in the specification, the medium as claimed is that of a signal. As set forth in the Interim Guidelines, page 55, "A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine". Therefore, claims 19-23, 26-28, 30, 32 are nothing but a signal and signal is non-statutory.

Claim Rejections - 35 USC § 103

7. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie et al (US 5,880,411 hereinafter Gillespie) in view of Astala et al (US 6,590,568 hereinafter Astala).

As to claims 1, 19, Gillespie discloses a method comprising: receiving a pressure signal (e.g. Z-value, Fig. 1) indicating a pressure from an input device (e.g. finger); determining a change in pressure based at least in part on the pressure signal (col. 23, lines 25-32, col. 24, lines 44-60 for example); determining a velocity associated with the pressure signal; and outputting a press signal if the velocity is less than the velocity threshold (col. 36, lines 26-47, which states "There are several ways to distinguish between a true drag and a press. **A true drag can be identified if the finger's speed of motion prior to lift-off is above a small threshold.** A press

can be identified if the finger was stationary through the entire gesture, possibly ignoring small, inconsequential movements”; in other words, a press can be identified if the finger’s speed of motion prior to lift-off is below a small threshold), and the change in pressure is greater than a change in pressure threshold (col. 35, lines 28-30, and col. 49, lines 8-112 for example).

Gillespie does not disclose outputting a press signal if a first interval has elapsed. However, Astala is cited to teach outputting a press signal if the value of pressure of touch input is greater than a pressure threshold and a first interval has elapsed (col. 9, lines 24-35). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie to output the press signal if a first interval has elapsed as taught by Astala so as to “provide a touch screen technique for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object, contacting or pressing a detection point on the touch screen, are detected” (col. 2, lines 21-23 of Astala) and to eliminate unintentional contact.

As to claims 31, 32, Gillespie discloses comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value (302, 320 in Fig. 17A).

As to claim 2, Gillespie also discloses an adaptive pressure threshold value (col. 23, lines 29-32), wherein the adaptive pressure threshold value (Z_{TH}) is associated with an absolute pressure threshold.

As to claim 3, Gillespie discloses adaptive pressure threshold value is associated with a position received from the input device (e.g. the Z-values is derived from the position signals X and Y).

As to claim 5, Gillespie discloses the adaptive pressure threshold value is associated with a user identifier (col. 23, lines 31-32).

As to claims 6, 20, Fig. 9 of Gillespie discloses the adaptive pressure threshold value comprises a first pressure threshold value, and further comprising: comparing the pressure signal to a second pressure threshold value; and outputting the signal if the pressure signal is greater than both the first pressure threshold value and the second pressure threshold value.

As to claims 16 and 20, Gillespie discloses a first pressure signal and a second pressure signal, calculating a difference signal indicative of a difference between the first and second pressure signal, comparing the difference signal to a difference threshold value and outputting the press signal if the difference signal is greater than the difference threshold value (col. 24, lines 20-60).

As to claim 7, Gillespie discloses the pressure signal comprises a pseudo pressure signal (e.g. the pressure value is varied in accordance with the capacitance value).

As to claim 8, Gillespie discloses supplying a pressure filter (48-1...48-n, Fig. 3) to the pressure signal to create a filtered pressure signal.

As to claims 9-11, 17, 21-22, 27, Gillespie discloses the pressure filter comprises a first pressure filter comprising a first attribute (e.g. high frequency, col. 13, lines 34-44), and further comprising applying a second pressure filter to the pressure signal, the second pressure filter comprising a second attribute (e.g. low frequency, col. 15, line 55) that is different than the first attribute.

As to claims 12, 23, Gillespie discloses applying the pressure filter comprises applying

the pressure filter utilizing a sliding window (col. 28, lines 47-58).

As to claim 13, Gillespie discloses the input device comprises a touch pad (10, Fig. 1).

As to claims 29, 30, Gillespie discloses determining a rate of change of pseudo-pressure associated with the pressure signal (determining the Z value applied by the user), comparing the rate of change of pseudo-pressure with a threshold (302, 320 in Fig. 17A) and outputting a pressing signal if the rate of change of pseudo-pressure is greater than the pseudo-threshold (Fig. 17A).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claim 31, and further in view Geaghan et al (US 2003/0063073 hereinafter Geaghan).

As to claim 4, Gillespie as modified by Astala does not disclose the adaptive pressure threshold value can vary over time. However, Geaghan teaches the thresholds can be adjusted over time (lines 16-20 in [0040]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie as modified by Astala to adjust the adaptive pressure threshold value over time as taught by Geaghan to distinguish valid touch inputs on a continuously updated basis.

9. Claims 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claims 1 and 19, and further in view of Fujita et al. (US Patent No. 6,118,435).

As to claims 18 and 28, it is noted that Gillespie as modified by Astala does not specifically disclose outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal. Fujita is cited to teach a touch panel device similar to Gillespie. Fujita further discloses a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal (see abstract and Fig. 2). It would have been obvious to one of ordinary skill in the art to have modified Gillespie as modified by Astala with the tactile force feedback as taught by Fujita so as to provide an interaction between the user and the computer.

Response to Arguments

10. Applicant's arguments with respect to claims 1-13, 16-23, 26-32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's remarks regarding the 101 rejection of claims 19-23, 28, 30, 32 are not persuasive. The "router, private or public network, or other transmission device or channel, both wired and wireless" are nothing more than propagation media that transmit or carry instructions, and it is the signal within these media that is actually carrying the signal. As such the claimed media is nothing but a signal which is not-statutory. As set forth in the Interim Guidelines, page 55, "A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine". "A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101." Page 57 of the Interim Guidelines. Furthermore, it has been decided by the CAFC in *In re Nuijten* that signals are not statutory. Therefore claims 19-23, 28, 30, 32 are not statutory.

Applicant's remarks regarding Gillespie are not persuasive, see the rejections above.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Regina Liang/
Primary Examiner, Art Unit 2629

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta et al
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input
from a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

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

AMENDMENT AND RESPONSE TO NON-FINAL OFFICE ACTION

Sir:

The following Amendment and Remarks are submitted in response to the Office
Action mailed March 6, 2008.

Amendments to the Specification begin on page 2 of this paper.

Remarks begin on page 3 of this paper.

REMARKS

This paper is filed in response to the Office Action mailed March 6, 2008.

Claims 1-13, 16-23, and 26-32 are pending in this application. Claims 6 and 20 are rejected under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement. Claims 19-23, 26-28, 30, and 32 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 5,880,411 to Gillespie et al (“Gillespie”) in view of U.S. Patent No. 6,590,568 to Astala et al (“Astala”). Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent Publication No. 2003/0063073 to Geaghan et al (“Geaghan”). Claims 18 and 28 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent No. 6,118,435 to Fujita et al (“Fujita”).

Applicant has amended the specification. No new matter is added by this amendment, and support may be found in the specification and claims as originally filed.

Applicant traverses each of the Examiner’s rejections and respectfully requests reconsideration and allowance of all claims in light of the remarks below.

As a preliminary matter, the Applicant notes that the Examiner appears to use the terms “pressure” and “change in pressure” interchangeably in the various rejections of the claims. This is incorrect because the two terms refer to different characteristics or values. As such, the use of one term should not be construed by the Examiner as a use of the other.

I. § 112, ¶ 1 – Claims 6 and 20

Claims 6 and 20 were rejected under 35 U.S.C. § 112, ¶ 1 as failing to comply with the written description requirement.

To satisfy the written description requirement of 35 U.S.C. § 112, ¶ 1, the applicant must describe the claimed invention with all of its limitations. See M.P.E.P. § 2163(I).

In the Office Action, the Examiner states that

The specification does not disclose in step 322 that the change in pseudo pressure is compared to a first pressure threshold value and a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value. See Office Action, p. 3.

However, regardless of whether the Examiner's statement is true, the specification does provide written description for comparing a pressure value against two threshold values as recited in claims 6 and 20. For example, paragraph 41 recites that "[i]n the embodiment shown in FIG. 2, the processor (106) compares the pseudo pressure against both lower and upper thresholds to determine whether the finger is touching." Further, in paragraph 46, the specification recites "[i]n the embodiment shown in FIG. 3, a processor (106) executing program code first compares the pseudo pressure to an upper threshold value 302. If the pseudo pressure exceeds the upper threshold value, the process continues at step 314. If not, the processor (106) determines whether the user was previously touching, for example by checking the value of a stored flag 304. If so, the processor (106) compares the pseudo pressure to a lower threshold value 306." As such, with regards to both of figures 2 and 3, the specification describes comparing a pressure value to a first and second threshold value.

Further, Applicant would like to note that in the rejection, the Examiner stated that "the change in pseudo pressure is compared to a first pressure threshold value and a second pressure threshold value." This is not accurate based on the claim language. The claim language of claims 6 and 20 recites that a "pressure signal," not a "change in pressure," is compared against first and second thresholds.

In view of the foregoing, Applicant respectfully requests the Examiner withdraw the rejections of claims 6 and 20.

II. § 101 – Claims 19-23, 26-28, 30, and 32

Applicant respectfully traverses the Examiner's rejection of claims 19-23, 26-28, 30, and 32 under 35 U.S.C. § 101 as being directed towards non-patentable subject matter. The Examiner asserts that Applicant's definition of a computer-readable medium includes a signal *per se*, which were adjudged non-patentable subject matter in *In re*

*Nuijten*¹. Applicant expressly states that, for the purposes of this application, the term computer-readable medium does not include a signal *per se*. However, to expedite prosecution, Applicant has cancelled the portion of the specification that the Examiner alleges recites a signal *per se*. Applicant respectfully requests the Examiner withdraw the rejection of claims 19-23, 26-28, 30, and 32.

III. § 103(a) – Gillespie in view of Astala – Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32

Applicant respectfully traverses the rejection of claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Because Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, claim 1 is patentable over the combined references. The Examiner has cited to column 35 lines 28-30 and column 49, lines 8-12 to support the assertion that Gillespie teaches comparing a change in pressure to a threshold. However, these two portions of Gillespie relate a a pressure value, not a change in pressure value:

Finally, the Z signal exceeds threshold Ztap for at least some part of the stroke. Thus the stroke qualifies as a tap. Gillespie, Col. 35, lines 28-30.

FIG. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed. Gillespie, Col. 49, lines 8-12.

Each of these passages describes comparing a “pressure” with a threshold, not a “change in pressure” with a “change in pressure” threshold. As such, Gillespie does not

¹ 500 F.3d 1346 (Fed. Cir. 2007).

teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Astala does not cure this deficiency. Astala teaches a method for dragging a virtual object across a touch screen by dragging a finger across the touch screen. The portion cited by the Examiner does not relate to detecting a press event. Instead it relates to the detection of the drag gesture. The detection of a press is dealt with summarily:

The process begins at step 700. At step 702, a touch screen input is detected. That is, the touch of an object, such as a finger or pointed stylus, on the touch screen 70 is detected. This is illustrated in FIG. 6b by touch input 732 being disposed over the object file 1 of window 728. Astala, Col. 9, lines 15-19.

Thus, neither Astala, nor Gillespie in view of Astala, teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1. As such, claim 1 is patentable over Gillespie in view of Astala. Applicant respectfully requests the Examiner withdraw the rejection of claim 1.

Similar to claim 1, claim 19 recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 19 is patentable over Gillespie in view of Astala for at least the same reasons as claim 1. Applicant respectfully requests the Examiner withdraw the rejection of claim 1.

Because claims 2-3, 5-13, 16, 17, 20-23, 26, 27, and 29-32 each depend from and further limit either claim 1 or claim 19, claims 2-3, 5-13, 16, 17, 20-23, 26, 27, and 29-32 are each patentable over Gillespie in view of Astala for at least the same reasons. Applicant respectfully requests the Examiner withdraw the rejection of claims 2-3, 5-13, 16, 17, 20-23, 26, 27, and 29-32.

IV. § 103(a) – Gillespie in view of Astala and Geaghan – Claim 4

Applicant respectfully traverses the rejection of claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala and further in view of Geaghan.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Because Gillespie in view of Astala and further in view of Geaghan does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, from which claim 4 depends, claim 4 is patentable over the combined references. As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Geaghan does not cure this deficiency. Geaghan teaches that a change in pressure should be less than a threshold to detect a valid press event, not that a change in pressure should be greater than a threshold as recited in claim 1. Geaghan, Figure 1. Further, Geaghan states that if the rate of change of pressure is greater than a threshold, it “can indicate a double touch or an unstable touch. If the touch is stable and the rate of change is less than a threshold, a position can be reported.” Geaghan, Paragraph 50. As such, Geaghan teaches that a change in pressure greater than a threshold is undesirable when detecting a touch, contrary to elements recited in claim 4. Thus, claim 4 is patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claim 4.

V. § 103(a) – Gillespie in view of Astala and Fujita – Claims 18 and 28

Applicant respectfully traverses the rejection of claims 18 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala and further in view of Fujita.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Because Gillespie in view of Astala and further in view of Fujita does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has

elapsed” as recited in claim 1, from which claim 18 depends, claim 18 is patentable over the combined references. As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Fujita does not cure this deficiency.

Fujita generally teaches a touch panel with tactile feedback. However, Fujita teaches that detection of a press is made as follows:

Within the case 1, a press detection switch 6 is provided between the touch panel 3 and the touch-panel support plate 4 therebelow for detection of a press on the touch panel 3 at a pressure greater than a predetermined level P_t and for output of a press detection signal SS (see FIG. 2). The press detection switch 6 constitutes the press detecting means. The predetermined pressure P_t in this case means a pressure such as to cause the press detection switch 6 to output the press detection signal SS. Fujita, Col. 4, lines 19-27.

As such, Fujita teaches that a press is detected simply by detecting a pressure above a threshold. This is not the same as “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Thus, the combined references do not teach or suggest each and every element of claim 18. Therefore, claim 18 is patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claim 18.

Claim 28 depends from claim 19, which recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 28 is patentable over the combined references for at least the same reasons as claim 18. Applicant respectfully requests the Examiner withdraw the rejection of claim 28.

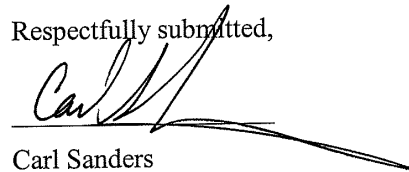
CONCLUSION

Applicant respectfully asserts that in view of the amendments and remarks above, all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Date: 7/7/2008

Respectfully submitted,



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 09/24/2008 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
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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.

Office Action Summary	Application No. 10/723,778	Applicant(s) DACOSTA ET AL.	
	Examiner Regina Liang	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-23 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 16-23, 26-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☐ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) ☐ Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-13, 16-23, 26-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Fig. 3 and section [0050] of the specification discloses “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. If the change in pseudo pressure is less than or equal to the threshold, the processor (106) returns to step 302 in the process. If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324, if so, the processor (106) concludes that the user is pressing 326 and the processor (106) returns to step 302 in the process”. In step 322, the specification discloses the change in pseudo pressure is compared to **a threshold value**. The specification does not disclose in step 322 that the change in pseudo pressure is compared to a first pressure threshold value and a second pressure threshold value, and outputting the signal if

the pressure signal is greater than both first pressure threshold value and the second pressure threshold value as is now claimed in claims 6 and 20.

Although the specification discloses in steps 302 and 306 of Fig. 3, comparing the pressure signal to an upper threshold and to a lower threshold, respectively, in step 306, comparing the pressure signal to a lower threshold (corresponds to a second pressure threshold value) occurs only if the pressure signal is **less than** the upper threshold (corresponds to a first pressure threshold value) at step 302. The specification does not disclose outputting the signal if the pressure signal is greater than **both** the first pressure threshold value and the second pressure threshold value. Therefore, the specification does not provide support for “comparing to a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value” as claimed in claims 6 and 20

The step 322 and the specification [0050] disclose “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. ... If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326”. The original specification discloses the change in pressure is greater than **a threshold value** where the threshold value is constant. Thus, the original specification does not provide support for “a change in pressure threshold” as alleged by applicant in the remarks regarding claims 1 and 19.

In view of the above 112 1st problems, the claims are interpreted in light of the specification for examination purposes.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 as being non-statutory because claims although claim a computer-readable medium on which is encoded programming code, however, page 8, [0024] of the specification discloses "Embodiments of computer-readable media include, but are not limited to, an electronic, optical, magnetic, or other storage or **transmission device** capable of providing a processor, ..." (emphasis added), in light of the definition in the specification, the medium (transmission device) as claimed is that of a signal. As set forth in the Interim Guidelines, page 55, "A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine". Therefore, claims 19-23, 26-28, 30, 32 are nothing but a signal and signal is non-statutory.

Claim Rejections - 35 USC § 103

6. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie et al (US 5,880,411 hereinafter Gillespie) in view of Astala et al (US 6,590,568 hereinafter Astala).

As to claims 1, 19, Gillespie discloses a method comprising: receiving a pressure signal (e.g. Z-value, Fig. 1) indicating a pressure from an input device (e.g. finger); determining a change in pressure based at least in part on the pressure signal (col. 23, lines 25-32, col. 24, lines

44-60 for example); determining a velocity associated with the pressure signal; and outputting a press signal if the velocity is less than the velocity threshold (col. 36, lines 26-47, which states” There are several ways to distinguish between a true drag and a press. **A true drag can be identified if the finger’s speed of motion prior to lift-off is above a small threshold.** A press can be identified if the finger was stationary through the entire gesture, possibly ignoring small, inconsequential movements”; in other words, a press can be identified if the finger’s speed of motion prior to lift-off is below a small threshold), and the change in pressure is greater than a change in pressure threshold (col. 35, lines 28-30, and col. 49, lines 8-12 for example).

Gillespie does not disclose outputting a press signal if a first interval has elapsed. However, Astala is cited to teach outputting a press signal if the value of pressure of touch input is greater than a pressure threshold and a first interval has elapsed (col. 9, lines 24-35). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie to output the press signal if a first interval has elapsed as taught by Astala so as to “provide a touch screen technique for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object, contacting or pressing a detection point on the touch screen, are detected” (col. 2, lines 21-23 of Astala) and to eliminate unintentional contact.

As to claims 31, 32, Gillespie discloses comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value (302, 320 in Fig. 17A).

As to claim 2, Gillespie also discloses an adaptive pressure threshold value (col. 23, lines 29-32), wherein the adaptive pressure threshold value (Z_{TH}) is associated with an absolute

pressure threshold.

As to claim 3, Gillespie discloses adaptive pressure threshold value is associated with a position received from the input device (e.g. the Z-values is derived from the position signals X and Y).

As to claim 5, Gillespie discloses the adaptive pressure threshold value is associated with a user identifier (col. 23, lines 31-32).

As to claims 6, 20, Fig. 9 of Gillespie discloses the adaptive pressure threshold value comprises a first pressure threshold value, and further comprising: comparing the pressure signal to a second pressure threshold value; and outputting the signal if the pressure signal is greater than both the first pressure threshold value and the second pressure threshold value.

As to claims 16 and 20, Gillespie discloses a first pressure signal and a second pressure signal, calculating a difference signal indicative of a difference between the first and second pressure signal, comparing the difference signal to a difference threshold value and outputting the press signal if the difference signal is greater than the difference threshold value (col. 24, lines 20-60).

As to claim 7, Gillespie discloses the pressure signal comprises a pseudo pressure signal (e.g. the pressure value is varied in accordance with the capacitance value).

As to claim 8, Gillespie discloses supplying a pressure filter (48-1...48-n, Fig. 3) to the pressure signal to create a filtered pressure signal.

As to claims 9-11, 17, 21-22, 27, Gillespie discloses the pressure filter comprises a first pressure filter comprising a first attribute (e.g. high frequency, col. 13, lines 34-44), and further comprising applying a second pressure filter to the pressure signal, the second pressure filter

comprising a second attribute (e.g. low frequency, col. 15, line 55) that is different than the first attribute.

As to claims 12, 23, Gillespie discloses applying the pressure filter comprises applying the pressure filter utilizing a sliding window (col. 28, lines 47-58).

As to claim 13, Gillespie discloses the input device comprises a touch pad (10, Fig. 1).

As to claims 29, 30, Gillespie discloses determining a rate of change of pseudo-pressure associated with the pressure signal (determining the Z value applied by the user), comparing the rate of change of pseudo-pressure with a threshold (302, 320 in Fig. 17A) and outputting a pressing signal if the rate of change of pseudo-pressure is greater than the pseudo-threshold (Fig. 17A).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claim 31, and further in view Geaghan et al (US 2003/0063073 hereinafter Geaghan).

As to claim 4, Gillespie as modified by Astala does not disclose the adaptive pressure threshold value can vary over time. However, Geaghan teaches the thresholds can be adjusted over time (lines 16-20 in [0040]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie as modified by Astala to adjust the adaptive pressure threshold value over time as taught by Geaghan to distinguish valid touch inputs on a continuously updated basis.

8. Claims 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claims 1 and 19, and further in view of Fujita et al. (US Patent No. 6,118,435).

As to claims 18 and 28, it is noted that Gillespie as modified by Astala does not specifically disclose outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal. Fujita is cited to teach a touch panel device similar to Gillespie. Fujita further discloses a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal (see abstract and Fig. 2). It would have been obvious to one of ordinary skill in the art to have modified Gillespie as modified by Astala with the tactile force feedback as taught by Fujita so as to provide an interaction between the user and the computer.

Response to Arguments

9. Applicant's arguments filed 7/7/08 have been fully considered but they are not persuasive.

Applicant's remarks regarding 112 1st rejections are not persuasive. In Fig. 3, steps 302 and 306 and paragraphs 41 and 46 of the specification may disclose an upper threshold and a lower threshold. However, the step 306 comparing the pressure signal to the lower threshold **only if** the pressure signal is **less than** the upper threshold. The specification does not disclose comparing the pressure signal against **both** upper and lower thresholds and outputting the press signal if the pressure signal is greater than **both** the upper and lower thresholds as claimed. The claims require "outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value" (claims 31, 32) and the adaptive pressure threshold value comprising a

first and second pressure threshold values (claims 6, 20). The specification only discloses outputting the **press signal** at step 326 (Fig. 3) if the speed is less than a speed threshold, the change in pressure is greater than a threshold value and a first interval has elapsed. The steps 302 and 306 in Fig. 3 of the specification are comparing the pseudo pressure against both lower and upper thresholds to determine whether the finger is **touching** (at step 318), which is not a **press signal**.

Applicant's remarks regarding Gillespie on pages 5-6 are not persuasive. Fig. 19 and col. 49, lines 8-12 of Gillespie teaches "Fig. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, **the finger pressure increase past threshold ZpushDown, causing the virtual button to be pressed**" (emphasis added). As stated in the 112 1st rejection above, step 322 in Fig. 3 and [0050] of the specification discloses "the change in pseudo pressure is compared to a threshold value 322". Gillespie clearly teaches comparing a change in pressure (i.e., increase) with a threshold and outputting a press signal if the change in pressure is greater than the threshold as claimed.

Applicant's remarks regarding Astala on page 6 are not persuasive. Col. 9, lines 24-35 of Astala teaches "at step 710, a determination is made that the value of the pressure z of touch input 732 is greater than a predetermined value Za over the period of time t1 that the object touches the touch screen 70, that is greater than a predetermined time tA. that is, the pressure of the object touching the touch screen 70 is determined to be greater than a predetermined pressure value for a period of time, which is greater than a predetermined period of time", which clearly teaches outputting a press signal if the value of pressure of touch input is greater than a pressure

threshold and a first time interval has elapsed. Therefore, Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed in claims 1 and 19.

Applicant's remarks regarding dependent claims 4, 18, 28 are not persuasive since the combination of references reads on the claims.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Regina Liang/
Primary Examiner, Art Unit 2629

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta et al
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input
from a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

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

AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION

Sir:

The following Amendment and Remarks are submitted in response to the Office
Action mailed September 24, 2008.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims begin on page 3 of this paper.

Remarks begin on page 8 of this paper.

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method comprising:
receiving a pressure signal indicating a pressure from an input device;
determining a change in pressure based at least in part on the pressure signal;
determining a velocity associated with the pressure signal; and
outputting a press signal if the velocity is less than a velocity threshold, the
change in pressure is greater than a change in pressure threshold, and a first interval has
elapsed.
2. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with an absolute pressure threshold.
3. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with a position received from the input device.
4. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value can vary over time.
5. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with a user identifier.
6. (Cancelled)
7. (Original) The method of claim 1, wherein the pressure signal comprises a
pseudo pressure signal.
8. (Original) The method of claim 1, further comprising applying a pressure filter to
the pressure signal to create a filtered pressure signal.

9. (Original) The method of claim 8, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising applying a second pressure filter to the pressure signal, the second pressure filter comprising a second attribute that is different than the first attribute.
10. (Original) The method of claim 9, wherein the first attribute comprises a first frequency value and the second attribute comprises a second frequency value.
11. (Original) The method of claim 10, wherein the second frequency value is lower than the first frequency value.
12. (Original) The method of claim 8, wherein applying the pressure filter comprises applying the pressure filter utilizing a sliding window.
13. (Original) The method of claim 1, wherein the input device comprises one of a touchpad, a touch panel, and a touch screen.
14. (Cancelled)
15. (Cancelled)
16. (Previously Presented) The method of claim 1, wherein the pressure signal comprises a first pressure signal and further comprising:
 - receiving a second pressure signal indicating a second pressure from the input device;
 - calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;
 - comparing the difference signal to a difference threshold value; and
 - outputting the press signal if the difference signal is greater than the difference threshold value.

17. (Original) The method of claim 16, further comprising filtering the difference signal to create a filtered difference signal.
18. (Original) The method of claim 1, further comprising outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
19. (Previously Presented) A computer-readable medium on which is encoded programming code, comprising:
- program code for receiving a pressure signal indicating a pressure from an input device;
 - determining a change in pressure based at least in part on the pressure signal;
 - program code for determining a velocity associated with the pressure signal;
 - and
 - program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.
20. (Cancelled)
21. (Original) The computer-readable medium of claim 19, further comprising program code for applying a pressure filter to the pressure signal to create a filtered pressure signal.
22. (Original) The computer-readable medium of claim 21, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising program code for applying a second pressure filter to the pressure signal, wherein the second pressure filter comprises a second attribute that is different than the first attribute.

23. (Original) The computer-readable medium of claim 21, wherein program code for applying the pressure filter comprises program code for applying the pressure filter utilizing a sliding window.
24. (Cancelled)
25. (Cancelled)
26. (Previously Presented) The computer-readable medium of claim 19, wherein the pressure signal comprises a first pressure signal and further comprising:
 program code for receiving a second pressure signal indicating a second pressure from the input device;
 program code for calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;
 program code for comparing the difference signal to a difference threshold value;
and
 program code for outputting the press signal if the difference signal is greater than the difference threshold value.
27. (Original) The computer-readable medium of claim 26, further comprising program code for filtering the difference signal to create a filtered difference signal.
28. (Original) The computer-readable medium of claim 19, further comprising program code for outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
29. (Previously Presented) The method of claim 1, further comprising:
 determining a rate of change of pseudo-pressure associated with the pressure signal;
 comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and

outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold

30. (Previously Presented) The computer-readable medium of claim 19, further comprising:

program code for determining a rate of change of pseudo-pressure associated with the pressure signal;

program code for comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and

program code for outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold.

31. (Previously Presented) The method of claim 1, further comprising comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value

32. (Previously Presented) The computer-readable medium of claim 19, further comprising program code for comparing the pressure signal to an adaptive pressure threshold value, and program code for outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value

REMARKS

This paper is filed in response to the Office Action mailed September 24, 2008.

Following the amendments above, claims 1-5, 7-13, 16-19, 21-23, and 26-32 are pending in this application. Claims 1-13, 16-23, and 26-32 stand rejected under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement. Claims 19-23, 26-28, 30, and 32 stand rejected under 35 U.S.C. § 101 as allegedly being directed towards unpatentable subject matter. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 5,880,411 to Gillespie et al (“Gillespie”) in view of U.S. Patent No. 6,590,568 to Astala et al (“Astala”). Claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent Publication No. 2003/0063073 to Geaghan et al (“Geaghan”). Claims 18 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent No. 6,118,435 to Fujita et al (“Fujita”).

Applicant has cancelled claims 6 and 20. Applicant traverses each of the Examiner’s rejections of the claims and respectfully requests reconsideration and allowance of all claims in view of the remarks below.

I. § 112, ¶ 1 – Claims 1-13, 16-23, and 26-32

Applicant respectfully traverses the rejection of claims 1-13, 16-23, and 26-32 under 35 U.S.C. § 112, ¶ 1.

Applicant has cancelled claims 6 and 20 rendering the rejection of those claims moot.

The Examiner has rejected claims 1 and 19 for reciting a “change in pressure threshold.” See Office Action, p. 3. Based on the Examiner’s rejection, there appears to be confusion over the use of the phrase in question. The Examiner states that the specification recites comparing a change in pressure to a threshold value. See Office Action, p. 3. Further, the specification recites comparing a change in pressure to a threshold value. See e.g. Specification, ¶ 3. Additionally, Figure 2 shows step 222 in which a change in pressure (ΔP) is compared to a threshold. Further, it is disclosed that if

several conditions are true, including that a change in pressure is greater than a threshold, a press signal is output. Thus, the element that recites “the change in pressure is greater than a change in pressure threshold” is supported by the specification.

It should be noted that the threshold quoted above is a “change in pressure” threshold (i.e. a threshold for ΔP), which may be a constant value, rather than a pressure threshold that is changing, which appears to be the Examiner’s interpretation.

For the foregoing reasons, Applicant respectfully asserts that claims 1 and 19, and consequently their dependent claims, satisfy the requirements of 35 U.S.C. § 112, ¶ 1.

II. § 101 – Claims 19-23, 26-28, 30, and 32

Applicant respectfully traverses the rejection of claims 19-23, 26-28, 30, and 32 under 35 U.S.C. § 101 as allegedly being directed to non-patentable subject matter.

In response to the Examiner’s assertion that the description of ‘computer-readable media’ in the specification may encompass a pure signal embodiment, Applicant has deleted reference to ‘transmission device’ from paragraph 20 to clarify that claims 19-23, 26-28, 30, and 32 do not claim pure signal embodiments. This deletion is only intended to ensure the scope of the term ‘computer-readable media’ does not cover pure signal embodiments, but does not otherwise indicate any intent to disclaim any other non-pure signal embodiments that ‘computer-readable media’ may encompass.

In view of the foregoing, Applicant respectfully asserts that claims 19-23, 26-28, 30, and 32 do not include pure signal embodiments within their scope and therefore claim only patentable subject matter. Applicant respectfully requests the Examiner withdraw the rejection of claims 19-23, 26-28, 30, and 32.

III. § 103(a) – Gillespie in view of Astala – Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32

Applicant respectfully traverses the rejection of claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Applicant has cancelled claims 6-20 rendering their rejection moot.

In response to Applicant's arguments presented in the previous response, the Examiner argues that Gillespie discloses "the change in pressure is greater than a change in pressure threshold" because Gillespie recites "the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed." See Office Action, p. 9. However, this does not disclose that a change in pressures is being calculated or compared against a threshold. Rather, the quoted section discloses that a pressure, not a change in pressure, is compared against the threshold in an iterative fashion until the pressure is greater than the threshold, at which time a button press occurs. Thus, Gillespie does not disclose comparing a change in pressure to a threshold, but only discloses comparing a pressure to a threshold.

Further, with respect to Astala, the Examiner responds that Astala discloses "the change in pressure is greater than a change in pressure threshold" because:

Astala teaches "at step 710, a determination is made that the value of the pressure z of touch input 732 is greater than a predetermined value Za over the period of time t.sub.1 that the object touches the touch screen 70, that is greater than a predetermined time tA. That is, the pressure of the object touching the touch screen 70 is determined to be greater than a predetermined pressure value for a period of time, which is greater than a predetermined period of time," which clearly teaches outputting a press signal if the value of a **pressure of a touch input is greater than a pressure threshold** and a first time interval has elapsed. (emphasis added)

As can be seen in the emphasized portion of the language from the Office Action, the Examiner alleges that Astala discloses comparing a pressure to a pressure threshold. See Office Action, p. 9-10. But this is not the same as comparing a change in pressure to a threshold as recited in claim 1. Thus, Astala also fails to teach "the change in pressure is greater than a change in pressure threshold."

With respect to the Examiner's rejection, because Gillespie in view of Astala does not teach or suggest "outputting a press signal if the velocity is less than a velocity

threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, claim 1 is patentable over the combined references. The Examiner has cited to column 35 lines 28-30 and column 49, lines 8-12 to support the assertion that Gillespie teaches comparing a change in pressure to a threshold. However, these two portions of Gillespie relate to a pressure value, not a change in pressure value:

Finally, the Z signal exceeds threshold Ztap for at least some part of the stroke. Thus the stroke qualifies as a tap. Gillespie, Col. 35, lines 28-30.

FIG. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed. Gillespie, Col. 49, lines 8-12.

Each of these passages describes comparing a “pressure” with a threshold, not a “change in pressure” with a “change in pressure” threshold. As such, Gillespie does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Astala does not cure this deficiency. Astala teaches a method for dragging a virtual object across a touch screen by dragging a finger across the touch screen. The portion cited by the Examiner does not relate to detecting a press event. Instead it relates to the detection of the drag gesture. The detection of a press is dealt with summarily:

The process begins at step 700. At step 702, a touch screen input is detected. That is, the touch of an object, such as a finger or pointed stylus, on the touch screen 70 is detected. This is illustrated in FIG. 6b by touch input 732 being disposed over the object file 1 of window 728. Astala, Col. 9, lines 15-19.

Thus, neither Astala, nor Gillespie in view of Astala, teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1. As such, claim 1 is patentable over Gillespie in view of Astala. Applicant respectfully requests the Examiner withdraw the rejection of claim 1.

Similar to claim 1, claim 19 recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 19 is patentable over Gillespie in view of Astala for at least the same reasons as claim 1. Applicant respectfully requests the Examiner withdraw the rejection of claim 1.

Because claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 each depend from and further limit either claim 1 or claim 19, claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 are each patentable over Gillespie in view of Astala for at least the same reasons. Applicant respectfully requests the Examiner withdraw the rejection of claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32.

IV. § 103(a) – Gillespie in view of Astala and Geaghan – Claim 4

Applicant respectfully traverses the rejection of claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala and further in view of Geaghan.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Because Gillespie in view of Astala and further in view of Geaghan does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, from which claim 4 depends, claim 4 is patentable over the combined references. As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Geaghan does not cure this deficiency. Geaghan teaches that a change in pressure should be **less than** a threshold to detect a valid press event, not that a change in pressure should be greater than a threshold as recited in claim 1. See Geaghan, Figure 1. Further, Geaghan states that if the rate of change of pressure is greater than a threshold, it “can indicate a double touch or an unstable touch. If the touch is stable and the rate of change is less than a threshold, a position can be reported.” Geaghan, Paragraph 50. As such, Geaghan teaches that a change in pressure greater than a threshold is undesirable

when detecting a touch, contrary to elements recited in claim 4. Thus, claim 4 is patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claim 4.

V. § 103(a) – Gillespie in view of Astala and Fujita – Claims 18 and 28

Applicant respectfully traverses the rejection of claims 18 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Gillespie in view of Astala and further in view of Fujita.

To sustain a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03.

Because Gillespie in view of Astala and further in view of Fujita does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, from which claim 18 depends, claim 18 is patentable over the combined references. As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Fujita does not cure this deficiency.

Fujita generally teaches a touch panel with tactile feedback. However, Fujita teaches that detection of a press is made as follows:

Within the case 1, a press detection switch 6 is provided between the touch panel 3 and the touch-panel support plate 4 therebelow for detection of a press on the touch panel 3 at a pressure greater than a predetermined level P_t and for output of a press detection signal SS (see FIG. 2). The press detection switch 6 constitutes the press detecting means. The predetermined pressure P_t in this case means a pressure such as to cause the press detection switch 6 to output the press detection signal SS. Fujita, Col. 4, lines 19-27.

As such, Fujita teaches that a press is detected simply by detecting a pressure above a threshold. This is not the same as “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure

threshold, and a first interval has elapsed.” Thus, the combined references do not teach or suggest each and every element of claim 18. Therefore, claim 18 is patentable over the combined references. Applicant respectfully requests the Examiner withdraw the rejection of claim 18.

Claim 28 depends from claim 19, which recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 28 is patentable over the combined references for at least the same reasons as claim 18. Applicant respectfully requests the Examiner withdraw the rejection of claim 28.

CONCLUSION

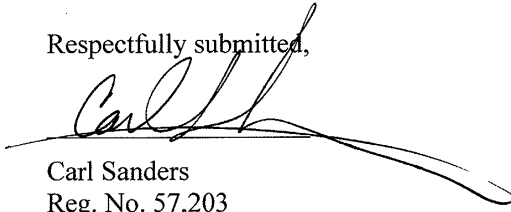
Applicant respectfully asserts that in view of the amendments and remarks above, all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Date: 11/21/2008

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Respectfully submitted,


Carl Sanders
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 12/03/2008 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			12/03/2008	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.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/723,778	Applicant(s) DACOSTA ET AL.	
	Examiner Regina Liang	Art Unit 2629	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 November 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ They raise the issue of new matter (see NOTE below);

(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☒ Applicant's reply has overcome the following rejection(s): 101 rejection, 112 1st rejection regarding claims 6 an 20.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-5, 7-13, 16-19, 21-23, 26-32.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

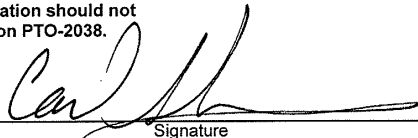
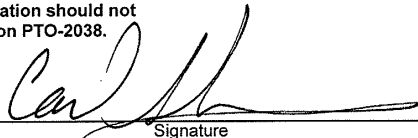
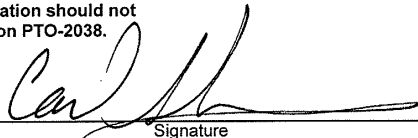
11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Regina Liang/
 Primary Examiner, Art Unit 2629

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's remarks regarding 112 1st rejection in re claims 1 and 19 are not persuasive. Step 222 in Fig. 2 of the specification may show a change in pressure, but Fig. 2 of the specification does not disclose "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed in claims 1 and 19. Applicant's remarks regarding the art rejections are not persuasive since the combination of the references read on the claims.

NOTICE OF APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES		Docket Number (Optional) IMM174							
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____		In re Application of Systems and Methods For Adaptive Interpretation... <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;">Application Number 10/723,778</td><td style="width: 50%;">Filed November 26, 2003</td></tr><tr><td colspan="2">For Henry DaCosta</td></tr><tr><td>Art Unit 2629</td><td>Examiner Regina Liang</td></tr></table>		Application Number 10/723,778	Filed November 26, 2003	For Henry DaCosta		Art Unit 2629	Examiner Regina Liang
		Application Number 10/723,778	Filed November 26, 2003						
		For Henry DaCosta							
Art Unit 2629	Examiner Regina Liang								
Applicant hereby appeals to the Board of Patent Appeals and Interferences from the last decision of the examiner. The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) \$ <u>540</u> ☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is: \$ _____ ☐ A check in the amount of the fee is enclosed. ☒ Payment by credit card. Form PTO-2038 is attached. ☐ The Director has already been authorized to charge fees in this application to a Deposit Account. ☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. _____ ☒ A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. I am the <table style="width: 100%;"><tr><td style="width: 50%; vertical-align: top;"> ☐ applicant/inventor. ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) ☒ attorney or agent of record. Registration number <u>57,203</u> ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____ </td><td style="width: 50%; vertical-align: top;">  Signature Carl E. Sanders Typed or printed name 336-607-7300 Telephone number January 26, 2009 Date </td></tr></table> NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.		☐ applicant/inventor. ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) ☒ attorney or agent of record. Registration number <u>57,203</u> ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____	 Signature Carl E. Sanders Typed or printed name 336-607-7300 Telephone number January 26, 2009 Date						
☐ applicant/inventor. ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) ☒ attorney or agent of record. Registration number <u>57,203</u> ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____	 Signature Carl E. Sanders Typed or printed name 336-607-7300 Telephone number January 26, 2009 Date								
☐ *Total of _____ forms are submitted.									

This collection of information is required by 37 CFR 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta et al
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input
from a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

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

AMENDMENT AFTER NOTICE OF APPEAL

Sir:

The following Amendment and Remarks are submitted following the submission of a Notice of Appeal, but prior to the filing of an Appeal Brief.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 7 of this paper.

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method comprising:
receiving a pressure signal indicating a pressure from an input device;
determining a change in pressure based at least in part on the pressure signal;
determining a velocity associated with the pressure signal; and
outputting a press signal if the velocity is less than a velocity threshold, the
change in pressure is greater than a change in pressure threshold, and a first interval has
elapsed.
2. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with an absolute pressure threshold.
3. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with a position received from the input device.
4. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value can vary over time.
5. (Previously Presented) The method of claim 31, wherein the adaptive pressure
threshold value is associated with a user identifier.
6. (Cancelled)
7. (Original) The method of claim 1, wherein the pressure signal comprises a
pseudo pressure signal.
8. (Original) The method of claim 1, further comprising applying a pressure filter to
the pressure signal to create a filtered pressure signal.

9. (Original) The method of claim 8, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising applying a second pressure filter to the pressure signal, the second pressure filter comprising a second attribute that is different than the first attribute.
10. (Original) The method of claim 9, wherein the first attribute comprises a first frequency value and the second attribute comprises a second frequency value.
11. (Original) The method of claim 10, wherein the second frequency value is lower than the first frequency value.
12. (Original) The method of claim 8, wherein applying the pressure filter comprises applying the pressure filter utilizing a sliding window.
13. (Original) The method of claim 1, wherein the input device comprises one of a touchpad, a touch panel, and a touch screen.
14. (Cancelled)
15. (Cancelled)
16. (Previously Presented) The method of claim 1, wherein the pressure signal comprises a first pressure signal and further comprising:
 - receiving a second pressure signal indicating a second pressure from the input device;
 - calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;
 - comparing the difference signal to a difference threshold value; and
 - outputting the press signal if the difference signal is greater than the difference threshold value.

17. (Original) The method of claim 16, further comprising filtering the difference signal to create a filtered difference signal.
18. (Original) The method of claim 1, further comprising outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
19. (Currently Amended) A computer-readable medium on which is encoded programming code, comprising:
 program code for receiving a pressure signal indicating a pressure from an input device;
 program code for determining a change in pressure based at least in part on the pressure signal;
 program code for determining a velocity associated with the pressure signal;
 and
 program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.
20. (Cancelled)
21. (Original) The computer-readable medium of claim 19, further comprising program code for applying a pressure filter to the pressure signal to create a filtered pressure signal.
22. (Original) The computer-readable medium of claim 21, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising program code for applying a second pressure filter to the pressure signal, wherein the second pressure filter comprises a second attribute that is different than the first attribute.

23. (Original) The computer-readable medium of claim 21, wherein program code for applying the pressure filter comprises program code for applying the pressure filter utilizing a sliding window.
24. (Cancelled)
25. (Cancelled)
26. (Previously Presented) The computer-readable medium of claim 19, wherein the pressure signal comprises a first pressure signal and further comprising:
 program code for receiving a second pressure signal indicating a second pressure from the input device;
 program code for calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;
 program code for comparing the difference signal to a difference threshold value;
and
 program code for outputting the press signal if the difference signal is greater than the difference threshold value.
27. (Original) The computer-readable medium of claim 26, further comprising program code for filtering the difference signal to create a filtered difference signal.
28. (Original) The computer-readable medium of claim 19, further comprising program code for outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
29. (Previously Presented) The method of claim 1, further comprising:
 determining a rate of change of pseudo-pressure associated with the pressure signal;
 comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and

outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold

30. (Previously Presented) The computer-readable medium of claim 19, further comprising:

program code for determining a rate of change of pseudo-pressure associated with the pressure signal;

program code for comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and

program code for outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold.

31. (Previously Presented) The method of claim 1, further comprising comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value

32. (Previously Presented) The computer-readable medium of claim 19, further comprising program code for comparing the pressure signal to an adaptive pressure threshold value, and program code for outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value

REMARKS

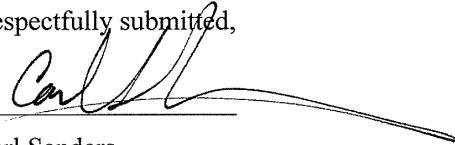
Applicant submits this amendment after the filing of a Notice of Appeal, but before the filing of an Appeal Brief. Applicant has amended claim 19 to insert obviously omitted words: the second claim element did not previously include the phrase "program code for." Applicant respectfully requests that this amendment be entered for purposes of appeal.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Date: 4/21/2009

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Respectfully submitted,



Carl Sanders
Reg. No. 57,203

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta et al
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input from
a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

This is an Appeal Brief filed under 37 C.F.R. § 41.37 in connection with the final rejection of claims 1-13, 16-23, and 26-32 in the Final Office Action mailed September 24, 2008. Each of the topics required by 37 C.F.R. § 41.37 is presented herewith and labeled appropriately.

Real Party in Interest

The real party in interest in the present application is the assignee, Immersion Corporation, 801 Fox Lane, San Jose, California 95131 (hereinafter “Appellant”).

Related Appeals and Interferences

Appellant and the Appellant’s legal representative know of no appeals or interferences that will directly affect, will be directly affected by, or have a bearing on the Board’s decision in this appeal.

Status of Claims

Claims 1-5, 7-13, 16-20, 21-23, and 26-32 (listed in Appendix A) stand finally rejected and are the substance of this appeal. The final rejection of claims 1-5, 7-13, 16-20, 21-23, and 26-32 is appealed.

Status of Amendments

Applicant cancelled claims 6 and 20 in the response to Final Office Action filed November 21, 2008. Applicant submitted an amendment after filing the Notice of Appeal, but before the filing of this Appeal Brief to make a minor amendment to claim 19 to insert the obviously omitted phrase “program code for.”

Summary of the Claimed Subject Matter

The present application has two pending independent claims – claims 1 and 19 – that are generally directed to methods and apparatuses for determining a user’s intent when using a touch-sensitive interface. For example, it may be desirable to determine when a user is attempting to indicate a press of a virtual button displayed on the screen or to move a cursor across the screen. See Specification, e.g., paragraphs 5 and 6.

Claim 1 is a method claim comprising four elements. The first element recites “receiving a pressure signal indicating a pressure from an input device.” For example, the specification discloses that a touchpad may detect a pressure of a contact on the touchpad, such as from a user’s finger. See Specification, e.g., paragraph 10. In such an embodiment, the touchpad may transmit the pressure signal to a processor, where the pressure signal indicates a pressure on the touchpad. See Specification, e.g. paragraph 17. The indicated pressure may be a pressure or a pseudo-pressure. See Specification, e.g., paragraph 14.

In the second element, claim 1 recites “determining a change in pressure based at least in part on the pressure signal.” For example, in one embodiment, a change in pseudo pressure may be computed by subtracting the filtered (average) pseudo pressure from the current pseudo pressure. In another embodiment, the previous filtered pseudo pressure is subtracted from the current filtered pseudo pressure. See Specification, e.g., paragraph 50.

In the third element, claim 1 recites “determining a velocity associated with the pressure signal.” For example, in one embodiment, the specification discloses that the velocity can be determined based on a change in X and Y position on the touchpad. In such an embodiment, the speed (or velocity) is equal to the square root of the change in X position squared plus the change in Y position squared. See Specification, e.g., paragraph 41.

In the last element, claim 1 recites “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” The specification discloses that in one embodiment the velocity is compared against a velocity threshold. See Specification, e.g., paragraph 46, Figure 3. If the velocity is less than the velocity threshold, then the change in pressure is compared against a change in pressure threshold. See Specification, e.g., paragraph 46, Figure 3. And if the change in pressure is greater than the change in pressure threshold, the processor determines whether a first interval has elapsed. See Specification, e.g., paragraph 46, Figure 3. If the first interval has elapsed, then the processor determines that a press is occurring and a press signal is output. See Specification, e.g., paragraph 46, Figure 3.

Independent claim 19 recites an apparatus: a computer-readable medium comprising programming code. In the first claim element, claim 19 recites “program code for receiving a pressure signal indicating a pressure from an input device.” For example, the specification discloses that a touchpad may detect a pressure of a contact on the touchpad, such as from a user’s finger. See Specification, e.g., paragraph 10. In such an embodiment, the touchpad may transmit the pressure signal to a processor, where the pressure signal indicates a pressure on the touchpad. See Specification, e.g. paragraph 17. The indicated pressure may be a pressure or a pseudo-pressure. See Specification, e.g., paragraph 14.

In the second element, claim 19 recites “program code for determining a change in pressure based at least in part on the pressure signal.” For example, in one embodiment, a change in pseudo pressure may be computed by subtracting the filtered (average) pseudo pressure from the current pseudo pressure. In another embodiment, the previous filtered pseudo pressure is subtracted from the current filtered pseudo pressure. See Specification, e.g., paragraph 50.

In the third element, claim 19 recites “program code for determining a velocity associated with the pressure signal.” For example, in one embodiment, the specification discloses that the

velocity can be determined based on a change in X and Y position on the touchpad. In such an embodiment, the speed (or velocity) is equal to the square root of the change in X position squared plus the change in Y position squared. See Specification, e.g., paragraph 41.

In the last element, claim 19 recites “program code for outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” The specification discloses that in one embodiment the velocity is compared against a velocity threshold. See Specification, e.g., paragraph 46, Figure 3. If the velocity is less than the velocity threshold, then the change in pressure is compared against a change in pressure threshold. See Specification, e.g., paragraph 46, Figure 3. And if the change in pressure is greater than the change in pressure threshold, the processor determines whether a first interval has elapsed. If the first interval has elapsed, then the processor determines that a press is occurring and a press signal is output. See Specification, e.g., paragraph 46, Figure 3.

Grounds of Rejection to be Reviewed on Appeal

There are five grounds of rejection to be reviewed on appeal.

1. Claims 1-13, 16-23, and 26-32 stand rejected under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement.
2. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 5,880,411 to Gillespie et al (“Gillespie”) in view of U.S. Patent No. 6,590,568 to Astala et al (“Astala”).
3. Claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent Publication No. 2003/0063073 to Geaghan et al (“Geaghan”).
4. Claims 18 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent No. 6,118,435 to Fujita et al (“Fujita”).
5. Claims 19-23, 26-28, 30, and 32 stand rejected under 35 U.S.C. § 101 as allegedly being directed towards unpatentable subject matter.

Argument

Issue 1: Whether the Examiner erred in rejecting claims 1-13, 16-23, and 26-32 under 35 U.S.C. § 112, ¶ 1.

Claims 1-13, 16-23, and 26-32 satisfy 35 U.S.C. § 110, ¶ 1 because the specification discloses a “change in pressure threshold” as recited in claims 1 and 19.

Section 112, ¶ 1 requires, in relevant part, that the specification “contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.”

Applicant has cancelled claims 6 and 20 rendering the rejection of those claims moot.

Because the specification of this application would enable one of ordinary skill in the art to make and use the invention, claims 1 and 19 satisfy § 112, ¶ 1. More specifically and contrary to the Examiner’s assertions, the specification provides enabling support for a “change in pressure threshold.” For example, the specification recites that “If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324.” See Specification, paragraph 46. Further, it is disclosed that if several conditions are true, including that a change in pressure is greater than a threshold, a press signal is output. See Specification, paragraph 46. In addition, Figure 3 shows a flow chart including a decision step 222 for determining whether a change in pressure is greater than a change in pressure threshold. See Figure 3.

Based on the Examiner’s rejection, there appears to be confusion over the use of the phrase in question. It should be noted that the threshold quoted above is a “change in pressure” threshold (i.e. a threshold for ΔP), which may be a constant value, rather than a pressure threshold that is changing, which appears to be the Examiner’s interpretation.

For the foregoing reasons, Applicant respectfully asserts that claims 1 and 19, and consequently their dependent claims, satisfy the requirements of 35 U.S.C. § 112, ¶ 1. Consequently, claims 2-5, 7-13, 16-18, 21-23, and 26-32 satisfy 35 U.S.C. § 112, ¶ 1 because

they were rejected based on the rejection of either claim 1 or 19. Applicant requests that the Board reverse the Examiner's rejection of claims 1-13, 16-23, and 26-32 under 35 U.S.C. § 112, ¶ 1.

Issue 2: Whether the Examiner erred in rejecting claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala.

Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, and 29-32 are patentable over Gillespie in view of Astala because Gillespie in view of Astala does not disclose “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.”

To reject a claim under 35 U.S.C. § 103(a) the scope and content of the references must be ascertained, the differences between the references and the claimed invention, and the level of ordinary skill in the pertinent art must be resolved. See *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *See also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

Applicant has cancelled claims 6 and 20 rendering their rejection moot.

In response to Applicant's arguments presented in the previous response, the Examiner argues that Gillespie discloses “the change in pressure is greater than a change in pressure threshold” because Gillespie recites “the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed.” See Office Action, p. 9. However, this does not disclose that a change in pressure is being calculated or that the calculated change in pressure is being compared against a threshold. Rather, the quoted section discloses that a pressure, not a change in pressure, is compared against the threshold in an iterative fashion until the pressure is greater than the threshold, at which time a button press occurs. Thus, Gillespie does not disclose comparing a change in pressure to a threshold, but only discloses comparing a pressure to a threshold.

Further, with respect to Astala, the Examiner responds that Astala discloses “the change in pressure is greater than a change in pressure threshold” because:

Astala teaches “at step 710, a determination is made that the value of the pressure z of touch input 732 is greater than a predetermined value Za over the period of time t.sub.1 that the object touches the touch screen 70, that is greater than a

predetermined time tA. That is, the pressure of the object touching the touch screen 70 is determined to be greater than a predetermined pressure value for a period of time, which is greater than a predetermined period of time,” which clearly teaches outputting a press signal if the value of a **pressure of a touch input is greater than a pressure threshold** and a first time interval has elapsed.

Final Office Action mailed September 24, 2008, p. 9 (emphasis added). As can be seen in the emphasized portion of the language from the Office Action, the Examiner alleges that Astala discloses comparing a pressure to a pressure threshold. See Office Action, p. 9-10. But this is not the same as comparing a change in pressure to a threshold as recited in claim 1. Thus, Astala also fails to teach “the change in pressure is greater than a change in pressure threshold.”

With respect to the Examiner’s rejection, because Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1, claim 1 is patentable over the combined references. The Examiner has cited column 35 lines 28-30 and column 49, lines 8-12 to support the assertion that Gillespie teaches comparing a change in pressure to a threshold. However, these two portions of Gillespie relate to a pressure value, not a change in pressure value:

Finally, the Z signal exceeds threshold Ztap for at least some part of the stroke.
Thus the stroke qualifies as a tap.

Gillespie, Col. 35, lines 28-30.

FIG. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed.

Gillespie, Col. 49, lines 8-12.

Each of these passages describes comparing a “pressure” with a threshold, not a “change in pressure” with a “change in pressure” threshold. As such, Gillespie does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Astala does not cure this deficiency. Astala teaches a method for dragging a virtual object across a touch screen by dragging a finger across the touch screen. The portion cited by the Examiner does not relate

to detecting a press event. Instead it relates to the detection of the drag gesture. The detection of a press is dealt with summarily:

The process begins at step 700. At step 702, a touch screen input is detected. That is, the touch of an object, such as a finger or pointed stylus, on the touch screen 70 is detected. This is illustrated in FIG. 6b by touch input 732 being disposed over the object file 1 of window 728.

Astala, Col. 9, lines 15-19.

Thus, neither Astala, nor Gillespie in view of Astala, teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed” as recited in claim 1. As such, claim 1 is patentable over Gillespie in view of Astala. Applicant respectfully requests the Board reverse the Examiner’s the rejection of claim 1.

Similar to claim 1, claim 19 recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 19 is patentable over Gillespie in view of Astala for at least the same reasons as claim 1. Applicant respectfully requests the Board reverse the Examiner’s the rejection of claim 19.

Because claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 each depend from and further limit either claim 1 or claim 19, claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 are each patentable over Gillespie in view of Astala for at least the same reasons. Applicant respectfully requests the Board reverse the Examiner’s rejection of claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32.

Issue 3: Whether the Examiner erred in rejecting claim 4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and Geaghan.

Claim 4 is patentable over Gillespie in view of Astala and further in view of Geaghan because Gillespie in view of Astala and Geaghan does not disclose “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.”

To reject a claim under 35 U.S.C. § 103(a) the scope and content of the references must be ascertained, the differences between the references and the claimed invention, and the level of

ordinary skill in the pertinent art must be resolved. See *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *See also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Geaghan does not cure this deficiency. Geaghan teaches that a change in pressure should be less than a threshold to detect a valid press event, not that a change in pressure should be greater than a threshold as recited in claim 1. See Geaghan, Figure 1. Further, Geaghan states that if the rate of change of pressure is greater than a threshold, it “can indicate a double touch or an unstable touch. If the touch is stable and the rate of change is less than a threshold, a position can be reported.” Geaghan, Paragraph 50. As such, Geaghan teaches that a change in pressure greater than a threshold is undesirable when detecting a touch, contrary to elements recited in claim 4. Thus, claim 4 is patentable over the combined references. Applicant respectfully requests the Board reverse the Examiner’s rejection of claim 4.

Issue 4: Whether the Examiner erred in rejecting claims 18 and 28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and Fujita

Claims 18 and 28 are patentable over Gillespie in view of Astala and further in view of Fujita because Gillespie in view of Astala and Fujita does not disclose “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.”

To reject a claim under 35 U.S.C. § 103(a) the scope and content of the references must be ascertained, the differences between the references and the claimed invention, and the level of ordinary skill in the pertinent art must be resolved. See *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *See also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

As discussed above, Gillespie in view of Astala does not teach or suggest “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Fujita does not cure this deficiency.

Fujita generally teaches a touch panel with tactile feedback. However, Fujita teaches that detection of a press is made as follows:

Within the case 1, a press detection switch 6 is provided between the touch panel 3 and the touch-panel support plate 4 therebelow for detection of a press on the touch panel 3 at a pressure greater than a predetermined level P_t and for output of a press detection signal SS (see FIG. 2). The press detection switch 6 constitutes the press detecting means. The predetermined pressure P_t in this case means a pressure such as to cause the press detection switch 6 to output the press detection signal SS.

Fujita, Col. 4, lines 19-27.

As such, Fujita teaches that a press is detected simply by detecting a pressure above a threshold. This is not the same as “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Thus, the combined references do not teach or suggest each and every element of claim 18. Therefore, claim 18 is patentable over the combined references.

Claim 28 depends from claim 19, which recites “program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” Claim 28 is patentable over the combined references for at least the same reasons as claim 18. Applicant respectfully requests the Board reverse the Examiner’s rejection of claims 18 and 28.

Issue 5: Whether the Examiner erred in maintaining the rejecting claims 19-23, 26-28, 30, and 32 under 35 U.S.C. § 101 after the Applicant removed the reference to “transmission device” from the specification per the Examiner’s request.

In the Final Office Action, the Examiner rejected claims 19-23, 26-28, 30, and 32 under 35 U.S.C. § 101 as allegedly being directed to non-patentable subject matter because the scope of the term “computer-readable media” may encompass a pure signal embodiment. Office Action mailed September 24, 2008, p. 4. Thus, Applicant has deleted reference to ‘transmission device’ from paragraph 20 to clarify that claims 19-23, 26-28, 30, and 32 do not claim pure signal embodiments. This deletion is only intended to ensure the scope of the term ‘computer-readable media’ does not cover pure signal embodiments, but does not otherwise indicate any intent to disclaim any other non-pure signal embodiments that ‘computer-readable media’ may encompass.

In view of the foregoing, Applicant respectfully asserts that claims 19-23, 26-28, 30, and 32 do not include pure signal embodiments within their scope and therefore claim only patentable subject matter. Applicant respectfully requests the Board reverse the Examiner's rejection of claims 19-23, 26-28, 30, and 32 under 35 U.S.C. § 101.

In view of the foregoing, Applicant requests the Board reverse each of the Examiner's rejections of the claims.

Date: 4/23/2009

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Respectfully submitted,



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Appendix A – Claims

1. A method comprising:
receiving a pressure signal indicating a pressure from an input device;
determining a change in pressure based at least in part on the pressure signal;
determining a velocity associated with the pressure signal; and
outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.
2. The method of claim 31, wherein the adaptive pressure threshold value is associated with an absolute pressure threshold.
3. The method of claim 31, wherein the adaptive pressure threshold value is associated with a position received from the input device.
4. The method of claim 31, wherein the adaptive pressure threshold value can vary over time.
5. The method of claim 31, wherein the adaptive pressure threshold value is associated with a user identifier.
7. The method of claim 1, wherein the pressure signal comprises a pseudo pressure signal.
8. The method of claim 1, further comprising applying a pressure filter to the pressure signal to create a filtered pressure signal.
9. The method of claim 8, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising applying a second pressure filter to the pressure signal, the second pressure filter comprising a second attribute that is different than the first attribute.

10. The method of claim 9, wherein the first attribute comprises a first frequency value and the second attribute comprises a second frequency value.
11. The method of claim 10, wherein the second frequency value is lower than the first frequency value.
12. The method of claim 8, wherein applying the pressure filter comprises applying the pressure filter utilizing a sliding window.
13. The method of claim 1, wherein the input device comprises one of a touchpad, a touch panel, and a touch screen.
16. The method of claim 1, wherein the pressure signal comprises a first pressure signal and further comprising:
 - receiving a second pressure signal indicating a second pressure from the input device;
 - calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;
 - comparing the difference signal to a difference threshold value; and
 - outputting the press signal if the difference signal is greater than the difference threshold value.
17. The method of claim 16, further comprising filtering the difference signal to create a filtered difference signal.
18. The method of claim 1, further comprising outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
19. A computer-readable medium on which is encoded programming code, comprising:
 - program code for receiving a pressure signal indicating a pressure from an input device;
 - program code for determining a change in pressure based at least in part on the pressure signal;

program code for determining a velocity associated with the pressure signal;
and

program code for outputting a press signal if the velocity is less than the velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.

21. The computer-readable medium of claim 19, further comprising program code for applying a pressure filter to the pressure signal to create a filtered pressure signal.

22. The computer-readable medium of claim 21, wherein the pressure filter comprises a first pressure filter comprising a first attribute, and further comprising program code for applying a second pressure filter to the pressure signal, wherein the second pressure filter comprises a second attribute that is different than the first attribute.

23. The computer-readable medium of claim 21, wherein program code for applying the pressure filter comprises program code for applying the pressure filter utilizing a sliding window.

26. The computer-readable medium of claim 19, wherein the pressure signal comprises a first pressure signal and further comprising:

program code for receiving a second pressure signal indicating a second pressure from the input device;

program code for calculating a difference signal indicative of a difference between the first pressure signal and the second pressure signal;

program code for comparing the difference signal to a difference threshold value; and

program code for outputting the press signal if the difference signal is greater than the difference threshold value.

27. The computer-readable medium of claim 26, further comprising program code for filtering the difference signal to create a filtered difference signal.

28. The computer-readable medium of claim 19, further comprising program code for outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal.
29. The method of claim 1, further comprising:
determining a rate of change of pseudo-pressure associated with the pressure signal;
comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and
outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold
30. The computer-readable medium of claim 19, further comprising:
program code for determining a rate of change of pseudo-pressure associated with the pressure signal;
program code for comparing the rate of change of pseudo-pressure with a pseudo-pressure threshold; and
program code for outputting a press signal if the rate of change of pseudo-pressure is greater than the pseudo-pressure threshold.
31. The method of claim 1, further comprising comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value
32. The computer-readable medium of claim 19, further comprising program code for comparing the pressure signal to an adaptive pressure threshold value, and program code for outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value.

Appendix B – Evidence

None.

Appendix C – Related Proceedings

None.

OK TO ENTER: /RL/

Attorney Docket IMM174

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta et al
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input
from a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

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

AMENDMENT AFTER NOTICE OF APPEAL

Sir:

The following Amendment and Remarks are submitted following the submission of a Notice of Appeal, but prior to the filing of an Appeal Brief.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 7 of this paper.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 06/24/2009 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
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			06/24/2009	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.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/723,778
Filing Date: November 26, 2003
Appellants: DACOSTA ET AL.

Carl Sanders
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/23/09 appealing from the Office action mailed 9/24/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-5, 7-13, 16-19, 21-23, and 26-32.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

There are four grounds of rejection to be reviewed on appeal.

1. Claims 1-5, 7-13, 16-19, 21-23, and 26-32 stand rejected under 35 U.S.C. § 112, ¶ 1 for allegedly failing to comply with the written description requirement.

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2. Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 5,880,411 to Gillespie et al ("Gillespie") in view of U.S. Patent No. 6,590,568 to Astala et al ("Astala").

3. Claim 4 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent Publication No. 2003/0063073 to Geaghan et al ("Geaghan").

4. Claims 18 and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala and further in view of U.S. Patent No. 6,118,435 to Fujita et al ("Fujita").

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,880,411	Gillespie et al	03-1999
6,590,568	Astala et al	07-2003
6118435	Fujita et al	09-2000
20030063073	Geaghan et al	04-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

Art Unit: 2629

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5, 7-13, 16-19, 21-23, 26-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The step 322 in Fig. 3 and the specification [0046] disclose “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. ... If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326”. The original specification discloses the change in pressure is greater than **a threshold value** where the threshold value is constant. Thus, the original specification does not provide support for “a change in pressure threshold” as claimed and as alleged by applicant in the remarks regarding claims 1 and 19.

In view of the above 112 1st problems, the claims are interpreted in light of the specification for examination purposes.

Claim Rejections - 35 USC § 103

3. Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie et al (US 5,880,411 hereinafter Gillespie) in view of Astala et al (US 6,590,568 hereinafter Astala).

As to claims 1, 19, Gillespie discloses a method comprising: receiving a pressure signal (e.g. Z-value, Fig. 1) indicating a pressure from an input device (e.g. finger); determining a change in pressure based at least in part on the pressure signal (col. 23, lines 25-32, col. 24, lines 44-60 for example); determining a velocity associated with the pressure signal; and outputting a press signal if the velocity is less than the velocity threshold (col. 36, lines 26-47, which states "There are several ways to distinguish between a true drag and a press. **A true drag can be identified if the finger's speed of motion prior to lift-off is above a small threshold.** A press can be identified if the finger was stationary through the entire gesture, possibly ignoring small, inconsequential movements"; in other words, a press can be identified if the finger's speed of motion prior to lift-off is below a small threshold), and the change in pressure is greater than a change in pressure threshold (col. 35, lines 28-30, and col. 49, lines 8-12 for example).

Gillespie does not disclose outputting a press signal if a first interval has elapsed. However, Astala is cited to teach outputting a press signal if the value of pressure of touch input is greater than a pressure threshold and a first interval has elapsed (col. 9, lines 24-35). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie to output the press signal if a first interval has elapsed as taught by Astala so as to "provide a touch screen technique for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object, contacting or pressing a detection point on the touch screen, are detected" (col. 2, lines 21-23 of Astala) and to eliminate unintentional contact.

As to claims 31, 32, Gillespie discloses comparing the pressure signal to an adaptive

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pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value (302, 320 in Fig. 17A).

As to claim 2, Gillespie also discloses an adaptive pressure threshold value (col. 23, lines 29-32), wherein the adaptive pressure threshold value (Z_{TH}) is associated with an absolute pressure threshold.

As to claim 3, Gillespie discloses adaptive pressure threshold value is associated with a position received from the input device (e.g. the Z-values is derived from the position signals X and Y).

As to claim 5, Gillespie discloses the adaptive pressure threshold value is associated with a user identifier (col. 23, lines 31-32).

As to claims 16 and 26, Gillespie discloses a first pressure signal and a second pressure signal, calculating a difference signal indicative of a difference between the first and second pressure signal, comparing the difference signal to a difference threshold value and outputting the press signal if the difference signal is greater than the difference threshold value (col. 24, lines 20-60).

As to claim 7, Gillespie discloses the pressure signal comprises a pseudo pressure signal (e.g. the pressure value is varied in accordance with the capacitance value).

As to claim 8, Gillespie discloses supplying a pressure filter (48-1...48-n, Fig. 3) to the pressure signal to create a filtered pressure signal.

As to claims 9-11, 17, 21-22, 27, Gillespie discloses the pressure filter comprises a first pressure filter comprising a first attribute (e.g. high frequency, col. 13, lines 34-44), and further comprising applying a second pressure filter to the pressure signal, the second pressure filter

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comprising a second attribute (e.g. low frequency, col. 15, line 55) that is different than the first attribute.

As to claims 12, 23, Gillespie discloses applying the pressure filter comprises applying the pressure filter utilizing a sliding window (col. 28, lines 47-58).

As to claim 13, Gillespie discloses the input device comprises a touch pad (10, Fig. 1).

As to claims 29, 30, Gillespie discloses determining a rate of change of pseudo-pressure associated with the pressure signal (determining the Z value applied by the user), comparing the rate of change of pseudo-pressure with a threshold (302, 320 in Fig. 17A) and outputting a pressing signal if the rate of change of pseudo-pressure is greater than the pseudo-threshold (Fig. 17A).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claim 31, and further in view Geaghan et al (US 2003/0063073 hereinafter Geaghan).

As to claim 4, Gillespie as modified by Astala does not disclose the adaptive pressure threshold value can vary over time. However, Geaghan teaches the thresholds can be adjusted over time (lines 16-20 in [0040]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie as modified by Astala to adjust the adaptive pressure threshold value over time as taught by Geaghan to distinguish valid touch inputs on a continuously updated basis.

Art Unit: 2629

5. Claims 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claims 1 and 19, and further in view of Fujita et al. (US Patent No. 6,118,435).

As to claims 18 and 28, it is noted that Gillespie as modified by Astala does not specifically disclose outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal. Fujita is cited to teach a touch panel device similar to Gillespie. Fujita further discloses a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal (see abstract and Fig. 2). It would have been obvious to one of ordinary skill in the art to have modified Gillespie as modified by Astala with the tactile force feedback as taught by Fujita so as to provide an interaction between the user and the computer.

(10) Response to Argument

Appellants' remarks regarding 112 1st rejection on pages 5-6 are not persuasive. As stated in the rejection above, the step 322 in Fig. 3 and the specification [0046] disclose "If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. ... If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326". The original specification discloses the change in pressure (ΔZ) is greater than **a threshold value** where the threshold value is constant. The specification does not disclose the "THRESHOLD" value in step 322 is changeable or variable. Thus, the original specification does not provide support for "a change in pressure threshold" as claimed and as alleged by appellant in the remarks regarding claims 1 and 19.

In response to appellants' argument on pages 6-7 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a change in pressure is being calculated or that the calculated change in pressure is being compared against a threshold") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Fig. 19 and col. 49, lines 8-12 of Gillespie teaches "Fig. 19 is a timing diagram illustrating a "push" gesture. To perform this gesture, the finger is first brought near enough to cause cursor motion without causing a virtual button press. Next, **the finger pressure increase past threshold ZpushDown, causing the virtual button to be pressed**" (emphasis added). As stated in the 112 1st rejection above, step 322 in Fig. 3 and [0046] of the specification discloses "the change in pseudo pressure is compared to a threshold value 322". Gillespie clearly teaches comparing a change in pressure (i.e., increase) with a threshold and outputting a press signal if the change in pressure is greater than the threshold as claimed.

Appellants' remarks regarding Astala on pages 6-8 are not persuasive. Gillespie teaches comparing a change in pressure (i.e., increase) with a threshold and outputting a press signal if the change in pressure is greater than the threshold. Astala is used to teach **outputting a press signal if** the value of pressure of touch input is greater than a pressure threshold and **a first time interval has elapsed**. Therefore, Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed in claims 1 and 19.

Appellants' remarks regarding claim 4 on pages 8-9 are not persuasive. Note the discussion of claims 1 and 19 above. Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed. Geaghan is used to teach the thresholds can be adjusted over time.

Appellants' remarks regarding claims 18 and 28 on pages 9-10 are not persuasive. Again, note the discussion of claims 1 and 19 above. Gillespie as modified by Astala discloses "outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed" as claimed. Fujita is used to teach a signal associated with a haptic effect, the haptic effect being based on the pressure signal.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Regina Liang/

Primary Examiner, Art Unit 2629

Conferees:

/Richard Hjerpe/

Application/Control Number: 10/723,778

Page 11

Art Unit: 2629

Supervisory Patent Examiner, Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Henry DaCosta
Application No. : 10/723,778
For : **Systems and Methods for Adaptive Interpretation of Input from
a Touch-Sensitive Input Device**
Filed : November 26, 2003
Examiner : Regina Liang
Art Unit : 2629

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

This is a Reply Brief filed under 37 C.F.R. § 41.41 in response to the Examiner's Answer mailed August 16, 2007. The Reply Brief is in connection with the final rejection of claims 1-5, 7-13, 16-19, 21-23, and 26-32 in the Final Office Action mailed September 24, 2008.

In the present Reply Brief, Appellant addresses a portion of the issues raised in the Examiner's Answer. Appellant's failure to address an issue in this Reply Brief should not be taken as an indication that Appellant agrees with the Examiner. The Board should instead consider Appellant's arguments in the record as a whole.

Status of the Claims

Claims 1-5, 7-13, 16-19, 21-23, and 26-32 are pending and are the substance of this appeal. Claims 6, 20, 24, and 25 were cancelled during prosecution. Applicant inadvertently included claim 20 in the listing of claims on appeal in the Appeal Brief.

Argument

Issue 1: Whether the Examiner erred in rejecting claims 1-5, 7-13, 16-19, 21-23, and 26-32 under 35 U.S.C. § 112, ¶ 1.

Claims 1-5, 7-13, 16-19, 21-23, and 26-32 satisfy 35 U.S.C. § 112, ¶ 1 because the specification discloses a “change in pressure threshold” as recited in claims 1 and 19.

Section 112, ¶ 1 requires, in relevant part, that the specification “contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.”

In the Examiner’s Answer, the Examiner has stated that the claim term “change in pressure threshold” refers to a threshold that is changing.¹ While the specification describes adaptive thresholds and thus contemplates that threshold values may change, the claim term in question relates to a threshold for a change in pressure, i.e. a ΔZ threshold, not a changing threshold value for pressure as asserted by the Examiner. As noted in Applicant’s appeal brief, a threshold against which a change in pressure is compared, i.e. a ΔZ threshold, is disclosed in the Figures and the specification. For example, the claimed “change in pressure is greater than a change in pressure threshold” is shown in Figure 2 where “ $\Delta Z > \text{threshold}$ ” is shown in step 222. Such a step is also shown in Figure 3, which includes step 322, which also shows “ $\Delta Z > \text{threshold}$.” While the term “change in pressure threshold” is not used in the Figure, it is plain that “ ΔZ ” (i.e. a change in pressure) is being compared against a threshold value for a change in pressure. Further, the corresponding description for Figure 3 states that “[i]f the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324. If so, the processor (106) concludes that the user is pressing 326 and the processor (106) returns to step 302 in the process.” Thus, the specification plainly discloses that a press signal may be generated when, among other conditions, $\Delta Z > \Delta Z \text{ threshold}$, i.e. a change in pressure is greater than a change in pressure threshold. Therefore, each of claims 1-5, 7-13, 16-19, 21-23, and 26-32 are supported by sufficient written description and satisfy 35 U.S.C. § 112, ¶ 1.

¹ See Examiner’s Answer, p. 8.

Applicant respectfully requests that the Board reverse the Examiner's rejection of claims 1-5, 7-13, 16-19, 21-23, and 26-32.

Issue 2: Whether the Examiner erred in rejecting claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gillespie in view of Astala.

Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 are patentable over Gillespie in view of Astala because Gillespie in view of Astala does not disclose “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.”

To reject a claim under 35 U.S.C. § 103(a) the scope and content of the references must be ascertained, the differences between the references and the claimed invention, and the level of ordinary skill in the pertinent art must be resolved. See *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *See also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

Each of claims 1 and 19 recite “outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.” The focus of the rejection under § 103(a) is the portion of claims 1 and 19 that recite “the change in pressure is greater than a change in pressure threshold.”

In her Answer, the Examiner maintains her assertion that Gillespie discloses “the change in pressure is greater than a change in pressure threshold” because Gillespie recites “the finger pressure increases past threshold ZpushDown, causing the virtual button to be pressed.” (emphasis in Examiner's Answer).² However, contrary to the Examiner's assertion, this portion of Gillespie simply describes comparing a pressure value against a pressure threshold in an iterative fashion over time: i.e. while the exerted pressure is below the ZpushDown threshold, a press is not detected; however, once the pressure is high enough (i.e. the pressure is greater than the pressure threshold, ZpushDown), a press is detected. This does not disclose a change in pressure value (i.e. a ΔZ value), nor does it disclose comparing a ΔZ against a ΔZ threshold (i.e. a change in pressure against a change in pressure threshold). Therefore, Gillespie does not disclose “the change in pressure is greater than a change in pressure threshold” as recited in

² See Examiner's Answer, p. 9.

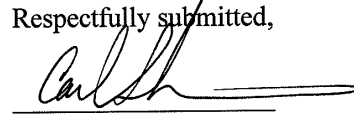
claims 1 and 19. Further, the Examiner apparently does not dispute that Astala does not disclose such a feature. Therefore, claims 1 and 19 are patentable over Gillespie in view of Astala.

Applicant respectfully requests the Board reverse the Examiner's the rejection of claims 1 and 19. Because claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 each depend from and further limit either claim 1 or claim 19, claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32 are each patentable over Gillespie in view of Astala for at least the same reasons. Applicant respectfully requests the Board reverse the Examiner's rejection of claims 2-3, 5, 7-13, 16, 17, 21-23, 26, 27, and 29-32.

Date: August 24, 2009

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Respectfully submitted,



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 09/18/2009 PATENT DEPARTMENT (51851) KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			09/18/2009	PAPER

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10723778	11/26/03	DACOSTA ET AL.	IMM174

PATENT DEPARTMENT (51851)
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EXAMINER

Regina Liang

ART UNIT	PAPER
2629	20090915

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Commissioner for Patents

1. The reply brief filed 8/24/09 has been entered and considered. The application has been forwarded to the Board of Patent Appeals and Interferences for decision on the appeal.

/Regina Liang/
Primary Examiner, Art Unit 2629

PTO-90C (Rev.04-03)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 12/14/2011 PATENT DEPARTMENT (51851) KILPATRICK TOWNSEND & STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			12/14/2011	PAPER

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRY DACOSTA, CHRISTOPHE RAMSTEIN,
and DANNY GRANT

Appeal 2009-015440
Application 10/723,778
Technology Center 2600

Before ERIC S. FRAHM, KALYAN K. DESHPANDE, and JASON V.
MORGAN, *Administrative Patent Judges*.

DESHPANDE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE¹

The Appellants seek review under 35 U.S.C. § 134(a) of a final rejection of claims 1-5, 7-13, 16-20, 21-23, and 26-32, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We REVERSE.

The Appellants invented the adaptive interpretation of input received from a touch-sensitive input device. Specification ¶ 0002.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added]:

1. A method comprising:
 - [1] receiving a pressure signal indicating a pressure from an input device;
 - [2] determining a change in pressure based at least in part on the pressure signal;
 - [3] determining a velocity associated with the pressure signal; and
 - [4] outputting a press signal if the velocity is less than a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed.

REFERENCES

The Examiner relies on the following prior art:

Gillespie	US 5,880,411	Mar. 9, 1999
Fujita	US 6,118,435	Sep. 12, 2000

¹ Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed Apr. 23, 2009) and Reply Brief ("Reply Br.," filed Aug. 24, 2009), and the Examiner's Answer ("Ans.," mailed June 24, 2009), and Final Rejection ("Final Rej.," mailed Sep. 24, 2008).

Appeal 2009-015440
Application 10/723,778

Astala	US 6,590,568 B1	Jul. 8, 2003
Geaghan	US 2003/0063073 A1	Apr. 3, 2003

REJECTIONS²

Claims 1-5, 7-13, 16-19, 21-23, and 26-32 stand rejected under 35 U.S.C §112 first paragraph as failing to comply with the written description requirement.

Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 stand rejected under 35 U.S.C §103(a) as being unpatentable over Gillespie and Astala.

Claim 4 stands rejected under 35 U.S.C §103(a) as being unpatentable over Gillespie, Astala, and Geaghan.

Claims 18 and 28 stand rejected under 35 U.S.C §103(a) as being unpatentable over Gillespie, Astala, and Fujita.

ISSUES

The issue of whether the Examiner erred in rejecting claims 1-5, 7-13, 16-20, 21-23, and 26-32 turns on whether the Appellants conveyed to a person with ordinary skill in the art that the Appellants were in possession of the claimed invention and whether the cited prior art describes limitation [4] of claim 1 and as recited in claim 19.

² We have decided the appeal before us. However, should there be further prosecution of these claims, the Examiner's attention is directed to recently issued guidance from the Director and our reviewing court, as follows below.

Specifically, should there be further prosecution with respect to claims 19-28, 30, and 32, the Examiner's attention is directed to *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007), and *Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

ANALYSIS

Claims 1-5, 7-13, 16-19, 21-23, and 26-32 rejected under 35 U.S.C §112 first paragraph as failing to comply with the written description requirement

The Examiner found that the Specification describes that a threshold value is a constant and therefore fails to support the feature “a change in pressure threshold” that is recited in independent claims 1 and 19. Ans. 4. The Appellants contend that the Examiner has misconstrued independent claims 1 and 19 in that these claims require that the change in pressure threshold is a constant value that the change in pressure is compared to. App. Br. 5 and Reply Br. 2.

We agree with the Appellants. The claims recite “the change in pressure is greater than a change in pressure threshold” and it is clear from this language that the change in pressure is measured against a constant threshold value. Although the claims recite a “change in pressure” threshold value, the label “change in pressure” does not change the fact that the threshold value is constant. Moreover, the Specification discloses that “the change in pseudo pressure is compared to a [change in pressure] threshold value 322.” Specification ¶ 0046 and Fig.3. As such, we find that the Appellants have conveyed to those skilled in the art that the Appellants were in possession of the claimed invention.

Claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 rejected under 35 U.S.C §103(a) as being unpatentable over Gillespie and Astala

The Appellants contend that the combination of Gillespie and Astala fails to teach or suggest “outputting a press signal if the velocity is less than

a velocity threshold, the change in pressure is greater than a change in pressure threshold, and a first interval has elapsed,” as required by limitation [4] of claim 1 and as recited in claim 19. App. Br. 6-8 and Reply Br. 3-4. The Appellants specifically argue that Gillespie teaches or suggests comparing a pressure value against a pressure threshold, but fails to teach or suggest comparing a change in pressure (ΔP) to a change in pressure threshold (ΔP threshold). Reply Br. 3.

We agree with the Appellants. As discussed *supra*, limitation [4] of claim 1 requires a “change in pressure” value to be evaluated against a “change in pressure threshold” value. That is, the claims are not concerned with the actual pressure value, but require the *change in pressure* value to be compared to a threshold.

Gillespie teaches that as a finger pressure increases past a threshold, a virtual button is pressed. Gillespie 49:12-13. The Examiner found that this “increase” in pressure is the same as a change in pressure. Ans. 9. However, this description merely teaches comparing a pressure value against a threshold value. As argued by the Appellants, this is not the same as evaluating a change in pressure against a change in pressure threshold. While in some instances the pressure value and the change in pressure value may be the same (e.g. an increase in pressure from 0 to 5 results is a change in pressure of 5), these values are not synonymous and they do not always represent the same value (e.g., an increase in pressure from 1 to 5 results in a change in pressure of 4). As such, we agree with the Appellants that the Examiner has failed to establish a *prima facie* case of obviousness.

*Claim 4 rejected under 35 U.S.C §103(a) as being unpatentable over
Gillespie, Astala, and Geaghan*

The Appellants contend that the cited prior art fails to teach or suggest claim 4 for the same reasons asserted in support of claim 1. App. Br. 8-9. We agree with the Appellants. The Appellants contentions in support of claim 1 are found to be persuasive *supra* and are persuasive here for the same reasons.

*Claims 18 and 28 rejected under 35 U.S.C §103(a) as being
unpatentable over Gillespie, Astala, and Fujita*

The Appellants contend that the cited prior art fails to teach or suggest claim 4 for the same reasons asserted in support of claims 1 and 19. App. Br. 9-10. We agree with the Appellants. The Appellants contentions in support of claims 1 and 19 are found to be persuasive *supra* and are persuasive here for the same reasons.

CONCLUSIONS OF LAW

The Examiner erred in rejecting claims 1-5, 7-13, 16-19, 21-23, and 26-32 under 35 U.S.C §112 first paragraph as failing to comply with the written description requirement.

The Examiner erred in rejecting claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as unpatentable over Gillespie and Astala.

The Examiner erred in rejecting claim 4 under 35 U.S.C. § 103(a) as unpatentable over Gillespie, Astala, and Geaghan.

The Examiner erred in rejecting claims 18 and 28 under 35 U.S.C. § 103(a) as unpatentable over Gillespie, Astala, and Fujita.

DECISION

To summarize, our decision is as follows.

- The rejection of claims 1-5, 7-13, 16-19, 21-23, and 26-32 under 35 U.S.C §112 first paragraph as failing to comply with the written description requirement is not sustained.
- The rejection of claims 1-3, 5, 7-13, 16, 17, 19, 21-23, 26, 27, and 29-32 under 35 U.S.C. § 103(a) as unpatentable over Gillespie and Astala is not sustained.
- The rejection of claims 4 under 35 U.S.C. § 103(a) as unpatentable over Gillespie, Astala, and Geaghan is not sustained.
- The rejection of claims 18 and 28 under 35 U.S.C. § 103(a) as unpatentable over Gillespie, Astala, and Fujita is not sustained.

REVERSED

ELD



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NOTICE OF ALLOWANCE AND FEE(S) DUE

34300 7590 12/28/2011
PATENT DEPARTMENT (51851)
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EXAMINER

LIANG, REGINA

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 12/28/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ADAPTIVE INTERPRETATION OF INPUT FROM A TOUCH-SENSITIVE INPUT DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	03/28/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

34300 7590 12/28/2011
PATENT DEPARTMENT (51851)
KILPATRICK TOWNSEND & STOCKTON LLP
1001 WEST FOURTH STREET
WINSTON-SALEM, NC 27101

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,778 11/26/2003 Henry DaCosta IMM174 4196

TITLE OF INVENTION: SYSTEMS AND METHODS FOR ADAPTIVE INTERPRETATION OF INPUT FROM A TOUCH-SENSITIVE INPUT DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	03/28/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIANG, REGINA	2629	345-173000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	11/26/2003	Henry DaCosta	IMM174	4196
34300 7590 12/28/2011 PATENT DEPARTMENT (51851) KILPATRICK TOWNSEND & STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101			EXAMINER LIANG, REGINA	
			ART UNIT	PAPER NUMBER
			2629	
DATE MAILED: 12/28/2011				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1468 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1468 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	10/723,778	DACOSTA ET AL.	
	Examiner	Art Unit	
	REGINA LIANG	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to BPAI Decision on 12/14/11.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 1-5,7-13,16-19,21-23 and 26-32.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____ 7. ☐ Examiner's Amendment/Comment 8. ☐ Examiner's Statement of Reasons for Allowance 9. ☐ Other ____
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/REGINA LIANG/ Primary Examiner, Art Unit 2629	
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,778	04/24/2012	8164573	IMM174	4196

34300 7590 04/04/2012
PATENT DEPARTMENT (51851)
KILPATRICK TOWNSEND & STOCKTON LLP
1001 WEST FOURTH STREET
WINSTON-SALEM, NC 27101

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 1560 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Henry DaCosta, Montreal, CANADA;
Christophe Ramstein, San Francisco, CA;
Danny Grant, Montreal, CANADA;