UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO. LTD., SAMSUNG ELECTRONICS AMERICA, INC. AND APPLE, INC.,

Petitioners

v.

NEONODE SMARTPHONE LLC,

Patent Owner

_____

Case IPR2021-00145

U.S. Patent No. 8,812,993

PATENT OWNER'S DEMONSTRATIVE EXHIBITS (EXHIBIT 2031)

REDACTED PUBLIC VERSION

Samsung Electronics Co. Ltd., et al. v. Neonode Smartphone LLC

IPR2021-00145
U.S. Patent No. 8,812,993

PATENT OWNER
NEONODE SMARTPHONE LLC
March 17, 2022

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A. Petitioners Fail to Show that Hisatomi Teaches or Renders Obvious "A Tap-Present State, Wherein a Plurality of Tap-Activatable Icons . . . Are Present."

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2. Hisatomi Does Not Teach Tap Activation of the GUI Buttons.
3. Petitioners Fail to Show a Motivation to Combine Ren and Hisatomi.

B. Petitioners Fail to Show that Hisatomi's GUI Buttons are Icons for "System Functions."

C. Petitioners Fail to Show that Hansen Teaches the Preamble's "Electronic Device."

D. Petitioners Fail to Show that Hansen Teaches the Use of Icons for "System Functions."

E. Petitioners Fail to Show Any Motivation to Combine Hansen and Gillespie.

F. Petitioners Fail to Show that Either Hisatomi or Hansen Teaches Tap-Activatable Icons that are Not Displayed Within a Window Frame.

G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

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H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

Claim 1 Requires "A Tap-Present State, Wherein A Plurality of Tap-Activatable Icons . . . Are Present"

1. A non-transitory computer readable medium storing instructions, which, when executed by a processor of an electronic device having a touch-sensitive display screen, cause the processor to enable a user interface of the device, the user interface comprising at least two states, namely, (a) a tap-present state, wherein a plurality of tap-activatable icons for a respective plurality of pre-designated system functions are present, each system function being activated in response to a tap on

interface comprising at least two states, namely, (a) a tap-present state, wherein a plurality of tap-activatable icons for a respective plurality of pre-designated system functions are present, each system function being activated in response to a tap on its respective icon, and (b) a tap-absent state, wherein

"Tap:" The input device (1) touches the screen, and then (2) lifts directly and immediately off the screen

DECLARATION OF CRAIG ROSENBERG, Ph.D.

Craig Rosenberg, Ph.D.

45. A POSA would have understood that a "tap" as used in a gesture-based user interface design for the touch-sensitive screen of a hand-operated computer unit, means a gesture in which the input device (1) touches the screen, and then (2) lifts directly and immediately off the screen. A POSA would have distinguished the "tap" gesture from a "drag and drop" gesture, in which the touch is maintained while making a gliding motion with the input device before the input device lifts off the screen. Id. And a POSA would have understood that a "tap" gesture as used in a gesture-based user interface for touch sensitive screens activates a function or service upon the input device lifting off of the screen. EX2001, ¶50. This property would have distinguished tap, in the mind of the

The Specification Supports Patent Owner's Construction

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FIG. **4** shows that selection of a preferred service or setting is done by tapping C, D on corresponding icon **213**.

DECLARATION OF CRAIG ROSENBERG, Ph.D.

47. "Tapping" as described in the specification is a gesture consisting of a downward touch on the coordinates of the icon (C in Figure 4), followed directly and immediately by an upward lift off of the icon (D in Figure 4). *Id.*

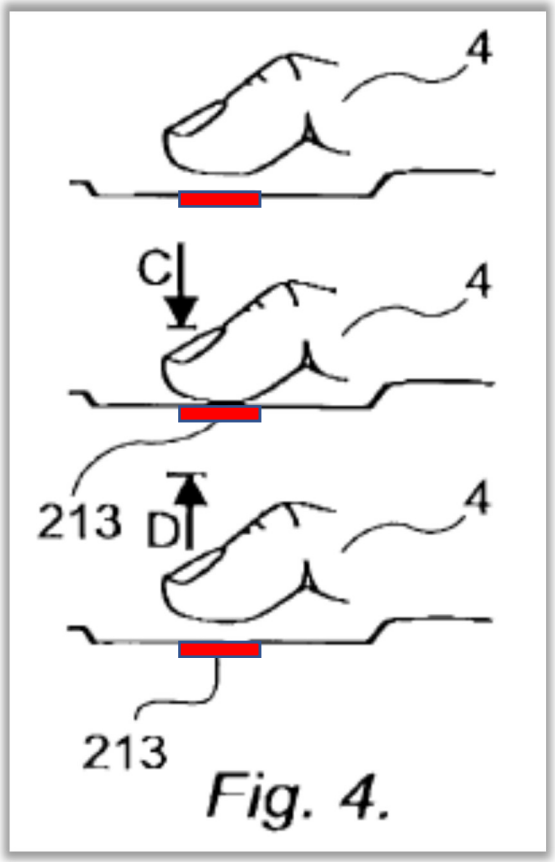


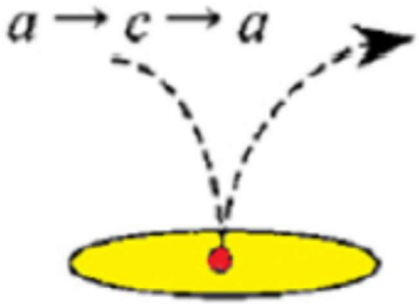
Fig. 4.

EX2013, ¶47; EX1001, 4:41-42, Fig. 4 ; POR, pp. 8-9; Sur-Reply, p. 3

Petitioners Agree:
Tap = Touch the Screen and Lift Directly Off

PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,812,993 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §4

EX1006, 390. The *Direct Off* route *a*→*c*→*a* reflects a typical "tap" selection technique for activating a function corresponding to the target, consistent with the "tapping C, D on corresponding icon 213" described in the '993 Patent.

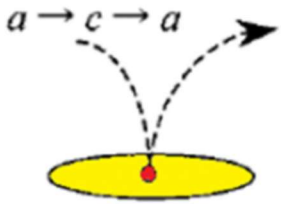


Ren, excerpt of FIG. 3. Ren describes the *Direct Off* strategy as "the same as the

Petitioners' Expert Agrees: Tap = Touch the Screen and Lift Directly Off

DECLARATION OF DR. BENJAMIN B. BEDERSON

the below excerpt of FIG. 3, the *Direct Off* route $a \rightarrow c \rightarrow a$ reflects a typical "tap" selection technique for activating a function corresponding to the target, consistent with the "tapping C, D on corresponding icon 213" described in the '993 Patent.



Ren, excerpt of FIG. 3 (emphasis added). Ren describes the *Direct Off* strategy as "the same as the familiar mouse technique." EX1006, 403.

40. "FIG. 4 shows that selection of a preferred service or setting is done by tapping C, D on corresponding icon 213." EX1001 at 4:41-42, FIG. 4.

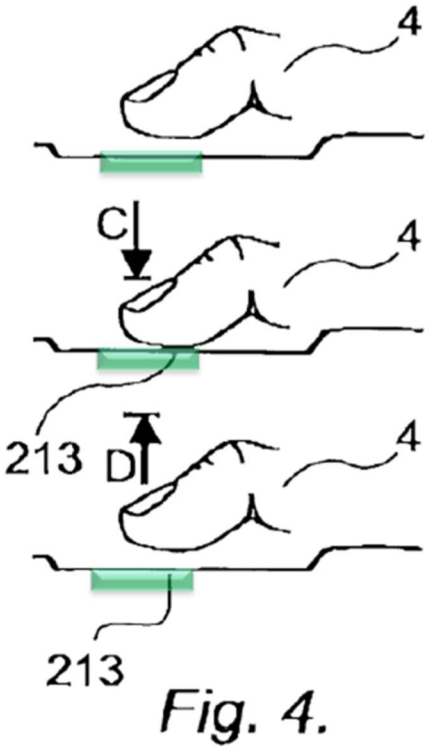
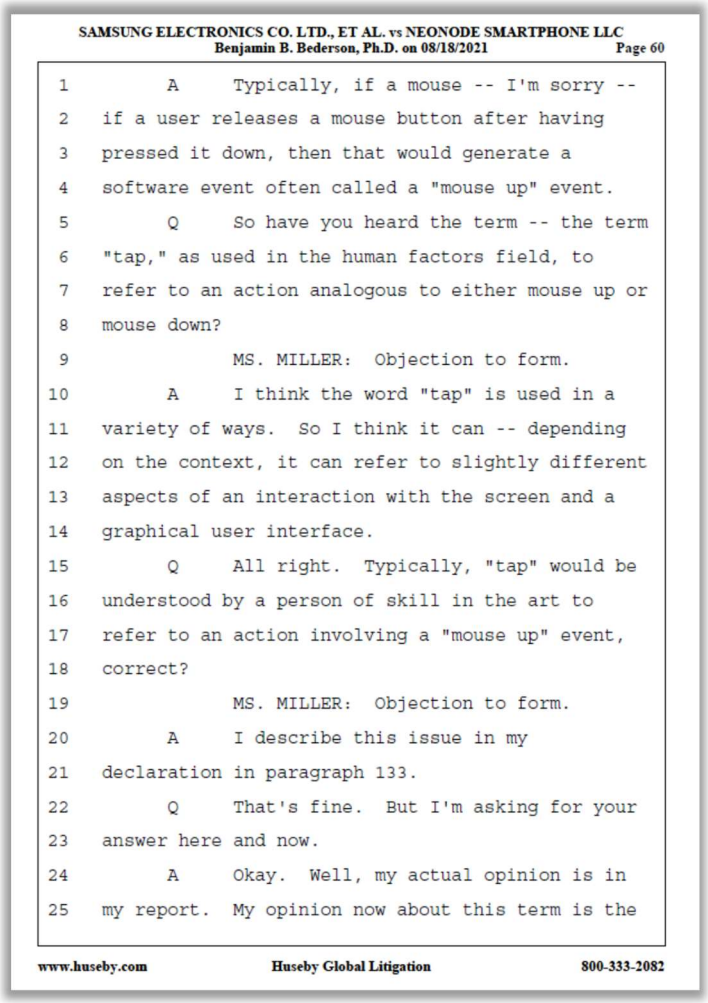


Fig. 4.

EX1001 at FIG. 4 (annotated to show the location of an icon in green).

Bederson Deposition: Tap = Pressing the Screen and Releasing It In the Same or Almost the Same Position



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A Typically, if a mouse -- I'm sorry -- if a user releases a mouse button after having pressed it down, then that would generate a software event often called a "mouse up" event.

Q So have you heard the term -- the term "tap," as used in the human factors field, to refer to an action analogous to either mouse up or mouse down?

MS. MILLER: Objection to form.

A I think the word "tap" is used in a variety of ways. So I think it can -- depending on the context, it can refer to slightly different aspects of an interaction with the screen and a graphical user interface.

Q All right. Typically, "tap" would be understood by a person of skill in the art to refer to an action involving a "mouse up" event, correct?

MS. MILLER: Objection to form.

A I describe this issue in my declaration in paragraph 133.

Q That's fine. But I'm asking for your answer here and now.

A Okay. Well, my actual opinion is in my report. My opinion now about this term is the

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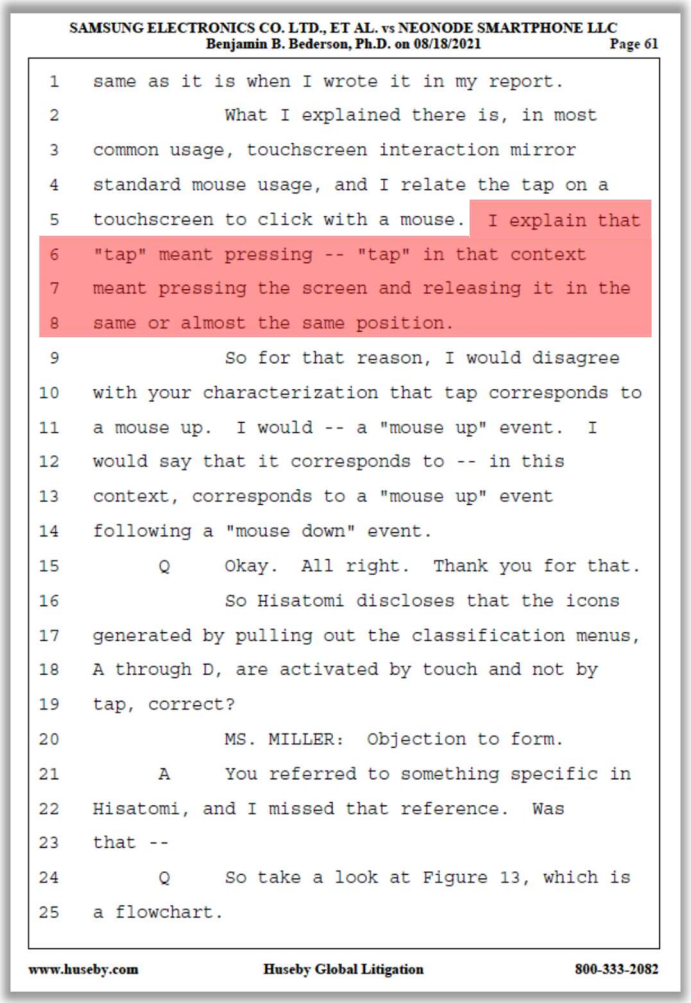

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same as it is when I wrote it in my report.

What I explained there is, in most common usage, touchscreen interaction mirror standard mouse usage, and I relate the tap on a touchscreen to click with a mouse. I explain that "tap" meant pressing -- "tap" in that context meant pressing the screen and releasing it in the same or almost the same position.

So for that reason, I would disagree with your characterization that tap corresponds to a mouse up. I would -- a "mouse up" event. I would say that it corresponds to -- in this context, corresponds to a "mouse up" event following a "mouse down" event.

Q Okay. All right. Thank you for that.

So Hisatomi discloses that the icons generated by pulling out the classification menus, A through D, are activated by touch and not by tap, correct?

MS. MILLER: Objection to form.

A You referred to something specific in Hisatomi, and I missed that reference. Was that --

Q So take a look at Figure 13, which is a flowchart.

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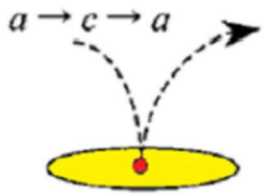
Petitioners Now Say that Tap Includes Ren's a→b→c→a Gesture, But That's Not What They Said in the Petition

Petitioners relied only on a→c→a in the Petition.

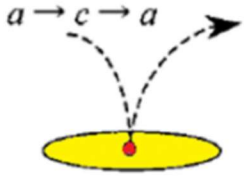
EX1006, 390. The *Direct Off* route *a→c→a* reflects a typical "tap" selection technique for activating a function corresponding to the target, consistent with the "tapping C, D on corresponding icon 213" described in the '993 Patent.



Ren, excerpt of FIG. 3. Ren describes the *Direct Off* strategy as "the same as the

Bederson relied only on a→c→a in his initial declaration.

the below excerpt of FIG. 3, the *Direct Off* route *a→c→a* reflects a typical "tap" selection technique for activating a function corresponding to the target, consistent with the "tapping C, D on corresponding icon 213" described in the '993 Patent.



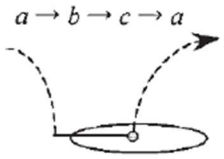
Ren, excerpt of FIG. 3 (emphasis added). Ren describes the *Direct Off* strategy as "the same as the familiar mouse technique." EX1006, 403.

Petitioners' new a→b→c→a theory is inadmissible. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369-70 (Fed. Cir. 2016); PTAB Consolidated Patent Trial Practice Guide, at 73 (Nov. 21, 2019).

Petitioners' Expert Contradicts Petitioners: Ren's a→b→c→a Gesture "Probably Doesn't" Constitute a Tap

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

why it is known to produce fewer errors than *Direct-On*. Third, Ren's *a→b→c→a* route, which meets Neonode's construction of "tap," allows the user to recover from an incorrect landing by sliding on to the target. EX2013, ¶92; Ren, 7 ("selection is made at the moment the pen is taken off the target"); Resp., 25.



Direct Off
Ren, Fig. 3.

This recognized benefit of "user recovery from potential error" provided by "tap" also applied to "real life-sized icons" (EX1052, 99:22-100:24; Allard (EX1007), 5:65-6:1) and would have motivated a POSA to use Ren's *Direct-Off* strategy. EX1051, ¶¶49-52.

REMOTE EXPERT DEPOSITION OF BENJAMIN BEDERSON, Ph.D.
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straightforward.
As an expert, is it your opinion that a POSITA would understand the gesture that is landing the pen just outside of the delete button, dragging it under the delete button, and then lifting it off; would a POSITA ordinarily understand that gesture to be a tap gesture?
MS. MILLER: Objection to form.
THE WITNESS: So, again, that's not something that I specifically formed an opinion about in my report. I didn't need to.
Because as I said, I showed why Hirayama '878 does disclose the tap. I didn't have to go and analyze the range of things that might not disclose a tap.
BY MR. HENDIFAR:
Q As you indicated, you don't know whether or not that gesture is disclosed as a tap?
MS. MILLER: Objection to form.
THE WITNESS: I think, as I already said, based on the disclosures of Ren, at least it is a possible form of selection, I did not analyze that for whether it means the word tap or not.
I think it probably doesn't, but, I mean, sitting here today, it probably doesn't; but it

Reply, p. 10; EX2029 at 163:24 – 164:25

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H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

Tap Activation v. Touch Activation

DECLARATION OF CRAIG ROSENBERG, Ph.D.

65. A POSA would have understood that in touch activated selection, the processing of a function is activated upon the event of detecting the coordinates of the initial touch of the input device *on* the touch sensitive display within the coordinates of the desired button or icon. In programming, this event is referred to as "mouse down." It corresponds to a downward press on the left button of a mouse with processing activated upon completion of the left button depression. A POSA would have understood, in contrast, that in tap-activatable selection, the processing of a function is commenced upon the event of the input device lifting *off* of the touch sensitive display from the coordinates of the desired button or icon. In programming, this event is referred to as "mouse up." It corresponds to a downward press on the left button of a mouse, followed by a release of the left button at a predetermined cursor location on a conventional monitor and desktop system with a mouse as the input device, with processing activated upon the release.

Hisatomi Teaches Touch Activation of GUI Button Icons, Not Tap Activation

[0030] As described above, by touching the soft button on the screen of the image display screen 09 with the input device 05, the coordinate on the touch panel sensor 11 can be detected, and according to the detected coordinate information, the CPU21 will execute various functions based on the operating system stored in the ROM25.

Hisatomi Teaches Touch Activation of GUI Button Icons, Not Tap Activation (cont'd)

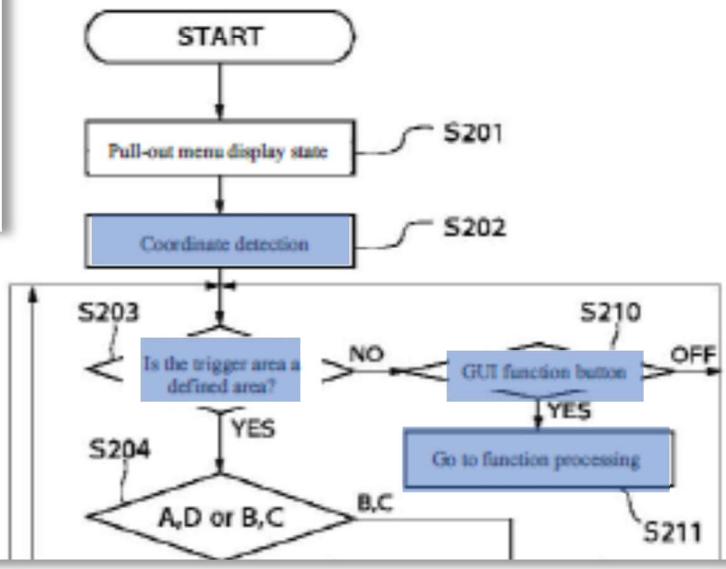
DECLARATION OF CRAIG ROSENBERG, Ph.D.

64. A POSA at the time of the invention would have understood Hisatomi to teach that the processing associated with a GUI function button is activated (FIG 13, step S210-211), when the detected coordinate value of the input device's *touch* correspond to the coordinate value of a GUI function button stored in memory. At

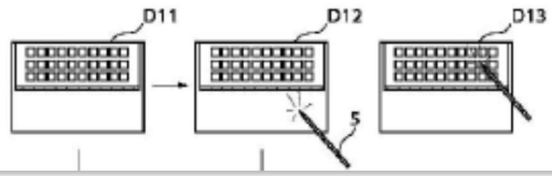
[0054] First, as shown on screen D11 in FIG. 15, the pull-out menu will be displayed at the maximum pull-out amount (S201). Next, in step S202, the position coordinate on the touch panel sensor 11 touched by the input device 05 will be detected.

[0055] In step S203, it is determined whether or not the coordinate value detected in step S102 is included in any of the pull-out menu display trigger areas 11A to 11D. If it is not included, as shown on screen D13 in FIG. 15, it is determined whether or not the specific function button (GUI function button) in the pull-out menu was selected by the input device 05 (S210); if it is selected, the selected function will be processed (S211). If it is not selected, the process

[FIG. 13]



[FIG. 15]

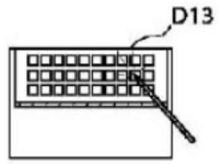


EX2013, ¶64; EX1005, ¶¶54-55, Fig. 13, 15; POR, pp. 17-20

Petitioners' Expert: Hisatomi Activates GUI Buttons on Touch

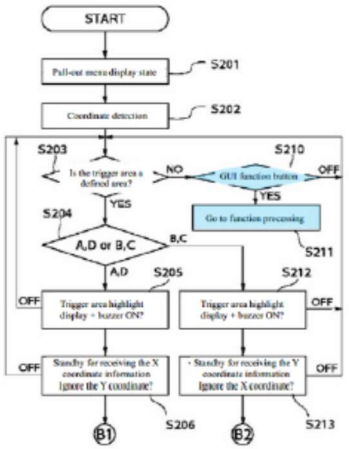
DECLARATION OF DR. BENJAMIN B. BEDERSON

130. Each function list includes multiple icons that are capable of selection or activation by a user touching or tapping the icon with the pen device. "[W]hen a desired function is selected from the list, the selected function will be executed." EX1004, 0003. For example, touching an icon on the screen with the pen (i.e., performing a tap) will select an icon and its related function. EX1004, 0015 ("The touch panel sensor 11 on the image display screen 09 is touched by the pen-type input device 05, the coordinate is designated by this touch, and various functions can be selected."). Image D13 in Figure 15 depicts a user touch on an icon within a pull-out menu.



EX1004, FIG. 15 (image D13 illustrating a touch on a GUI function button within a pull-out menu). Figure 13 shows that when the pull-out menu is displayed and a touch is detected, the device determines at step S210 "whether or not [a] specific function button (GUI function button) in the pull-out menu was selected" by the pen. EX1004, 0055. "[I]f it is selected, the selected function will be processed (S211)." EX1004, 0055,

[FIG. 13]



EX1004, FIG. 13; *see also id.* at FIGS. 49 and 50, 131 ("selecting a soft button on the screen with the input device as in the conventional device"), 0189 ("[I]n FIG. 50, when one of the function buttons in the pull-out menus is selected by the input device 05 (S1109), the function corresponding to that button will be executed (S1110)").

Hisatomi: "Off" Means Off
It Does Not Mean "Activate Function"

DECLARATION OF CRAIG ROSENBERG, Ph.D.

66. In Hisatomi, all processing, whether of the menu displays or the GUI function buttons, is activated upon the event of detecting the coordinate value of the touch within the coordinates of either the pull-out menu activation area or the GUI function button. There is no disclosure in Hisatomi of processing being activated by an "OFF" event (mouse up).

67. As shown in FIG 13 reproduced in paragraph 46, above, activation of processing represented by a GUI function button (step S211) occurs based upon detection of the coordinate value of the input device's touch (step S202) within the coordinates of a selected GUI function button (step S210). EX1005, FIG 13. In every instance shown on Figure 13, the occurrence of an "OFF" event does not activate processing, but to the contrary causes the processing to loop back to the coordinate detection steps at S202, S203 and 210. *Id.*

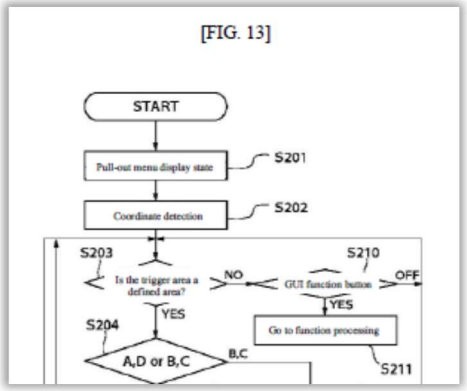
[0039] First, to briefly explain the processing procedures at the time of displaying the pull-out menu, the definition coordinate of the pull-out menu display trigger areas 11A to 11D on the touch panel sensor 11 has been registered in the ROM25 in advance. When it was detected that these areas were touched by the input device 05, the detected coordinate data will be verified through comparing with the definition coordinate registered in the ROM25, and the pull-out menu corresponding to the pull-out menu display trigger area to be operated will be selected, and it will become a display standby state. When the detected coordinate is continuously updated by dragging the input device 05 toward the center of the image display screen 09, the pull-out menu will be pulled out in the dragged direction accompanying with the dragging. If the detection information goes OFF (the input device 05 will no longer be in contact with the touch panel sensor 11 and the coordinate will no longer be detected), the pull-out menu will continue to be displayed on the dragged position. Here, "OFF" means that the touch panel sensor 11 will no longer be in contact with the input device 05 and the coordinate will no longer be detected. In the following explanation, "OFF" with the same meaning will be used.

Petitioners Fail to Cite to a Single Instance of Tap Activation in Hisatomi

- POR: All of Bederson's examples of "tap" activation clearly disclose touch.
- Petitioners' Reply: Okay, but "selection" could include tap.
- However:
  - Hisatomi states that functions are executed by "touching" the GUI buttons.
  - Hisatomi repeatedly specifies touch, never specifies tap.
  - Figure 13 indicates touch.
  - Bederson still does not identify a single instance of tap.

[0030] As described above, by touching the soft button on the screen of the image display screen 09 with the input device 05, the coordinate on the touch panel sensor 11 can be detected, and according to the detected coordinate information, the CPU21 will execute various functions based on the operating system stored in the ROM25.

[0054] First, as shown on screen D11 in FIG. 15, the pull-out menu will be displayed at the maximum pull-out amount (S201). Next, in step S202, the position coordinate on the touch panel sensor 11 touched by the input device 05 will be detected.
[0055] In step S203, it is determined whether or not the coordinate value detected in step S102 is included in any of the pull-out menu display trigger areas 11A to 11D. If it is not included, as shown on screen D13 in FIG. 15, it is determined whether or not the specific function button (GUI function button) in the pull-out menu was selected by the input device 05 (S210); if it is selected, the selected function will be processed (S211). If it is not selected, the process



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H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

Ren's Selection Strategies

- Direct On: Touch

—*Direct On* strategy: the pen approaches from above. The target is selected only momentarily at the time the pen makes contact with the screen in the target area. Here, I (Initial state) = {*a*}, F (Final state) = {*c*}, R (Route) = {$a \rightarrow c$}, and there is no middle state (M) (see Figures 1 and 3).

- Direct Off version a→c→a: Tap

—*Direct Off* strategy: the target is highlighted only while the pen is touching it. The selection is made at the moment the pen is taken off the target. Here, I = {*a*}, F = {*a*}, M = {*b*, *c*}, and R = {$a \rightarrow c \rightarrow a$, $a \rightarrow b \leftrightarrow c \rightarrow a$}.

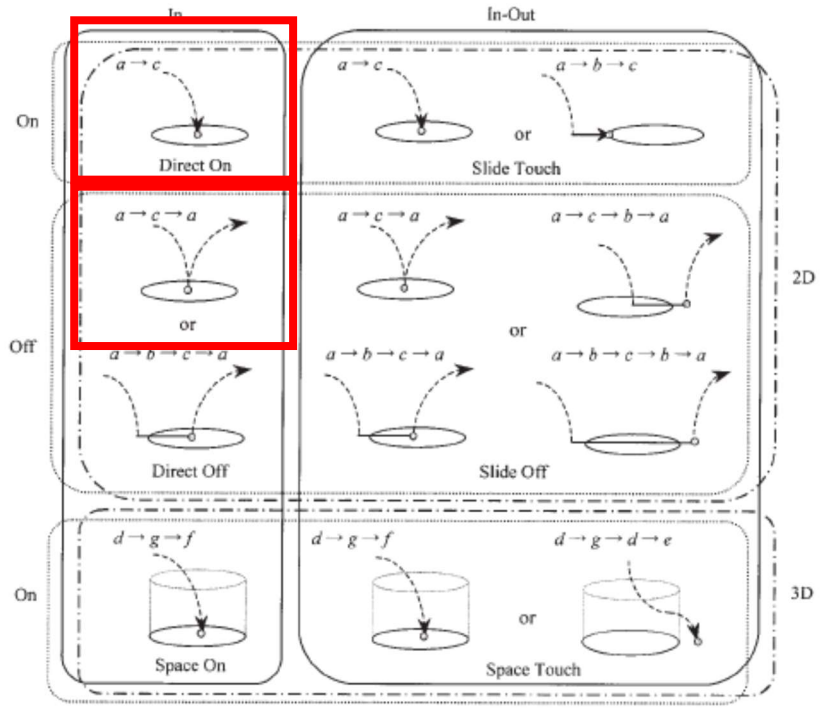
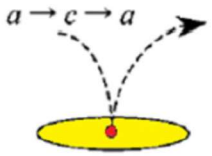


Fig. 3. This figure represents the six strategies (*Direct On,*, *Slide Touch*, *Direct Off*, *Slide Off*, *Space On*, and *Space Touch* described according to the sate transition models used in the two experiments. The figure also shows the strategies (*On*, *Off*, *2D*, *3D*, *In*, and *In-Out*) as they grouped according to their characteristics (see Section 2.3). The *In* strategies (on the left) are duplicated (center column) to indicate that they are functional possibilities within the *In-Out* strategies to which they correspond and with which they constitute a group (2D *On* or *Off* or 3D *On*). The figure shows only the simplest representation of each route and does not include possible repeated steps. Im many routes the initial and/or middle steps may be repeated any number of times before selection is affected, e.g., in the *Space On* strategy the figure shows *d* → *g* → *f*, but this could be represented as *d* ↔ *g* → *f* (e.g., *d* → *g* → *d* → *g* → *f*) because the repeated step does not affect the selection of the target though it may affect the highlighting function.

Petitioners Rely on Ren, But Ignore its Teaching

PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,812,993 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §4

As one specific example of a "***function being activated in response to a tap on its respective icon***," Ren describes a "*Direct Off*" technique for selecting a target and thereby activating its corresponding function, such as a menu. EX1002, ¶135. In the *Direct Off* strategy "the target is highlighted only while the pen is touching it," and "selection is made at the moment the pen is taken off the target." EX1006, 390. The *Direct Off* route *a→c→a* reflects a typical "tap" selection technique for activating a function corresponding to the target, consistent with the "tapping C, D on corresponding icon 213" described in the '993 Patent.



Ren, excerpt of FIG. 3. Ren describes the *Direct Off* strategy as "the same as the familiar mouse technique." EX1006, 403. EX1002, ¶135.

date of the '993 patent. This is also explicitly taught by Ren. EX1006, 390, 403. Ren also teaches the desirability of using the tap or *Direct Off* technique, for example, in dense displays where targets are close together. EX1006, 403. The

But:

Experiment One: Direct On (touch) better than Direct Off

Experiment Two: Direct On (touch) better than Direct Off

Selection Time:

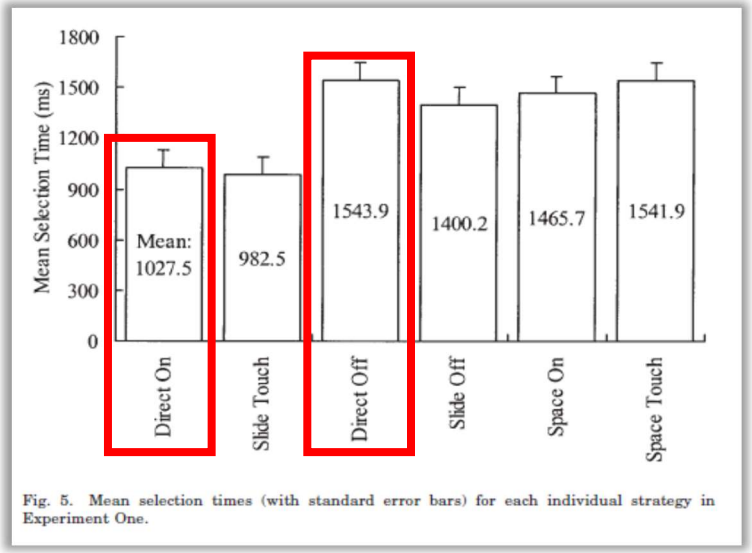


Fig. 5. Mean selection times (with standard error bars) for each individual strategy in Experiment One.

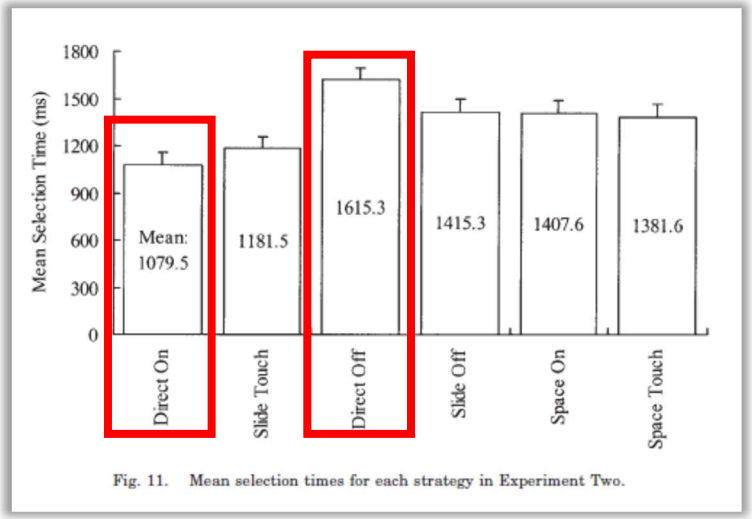


Fig. 11. Mean selection times for each strategy in Experiment Two.

Pet., pp. 37-38; EX1006, pp. 395, 409; POR, pp. 24-26

Petitioners Rely on Ren, But Ignore its Teaching (cont'd)

Error Rate: No significant difference at real-life target sizes; or, Direct On (touch) superior.

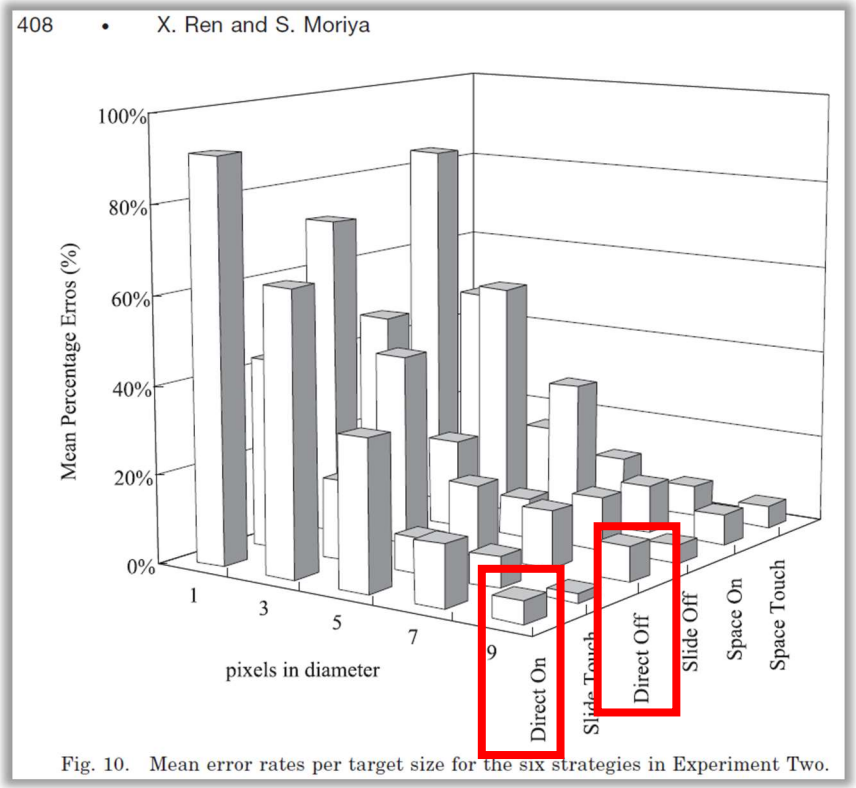


Fig. 10. Mean error rates per target size for the six strategies in Experiment Two.

Experiment One: No significant difference at 3mm.

—*Target size:* A significant difference in selection time was observed between the six strategies for each target size, 3, 5, and 9 pixels, $F(5,120) = 9.75, 6.85,$ and $5.22, p < 0.001$. This means that significant differences in selection time remained when the target size was varied. There was a significant difference between the strategies in error rate for each of the target sizes of 3 and 5 pixels, $F(5,120) = 24.7, 9.99, p < 0.0001$. On the other hand, there was no significant difference in error rate for the target size 9 pixels, $F(5,120) = 0.65$. This means that the difference in error rate was significantly affected when the target size was varied.

Experiment Two: No significant difference at 2.5mm.

4.2.2 *The Effect of Target Size on Error Rates.* Figure 10 shows error rates for each of the six strategies according to each of the target sizes, 1, 3, 5, 7, and 9 pixels. We looked at whether each target size affected the difference in error rate between the six strategies. The results show that there was a significant difference between the six strategies in error rate for each of the target sizes of 1, 3, and 5 pixels, $F(5,108) = 11.6, 15.6,$ and $6.35,$ all $p < 0.0001$; however, there was no significant difference between the 6 strategies in error rate for each target size of 7 or 9 pixels, $F(5,108) = 0.52, 0.75$. This means that target sizes of 5 pixels or less significantly affected the difference in error rate between the six strategies.

Petitioners agree: No significant difference at larger targets.

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

experiment. Ren's investigation therefore used smaller targets, and confirmed these expectations: lower error rates for *Direct-Off* using smaller targets, but not a statistically significant difference as the targets get larger. Ren, 397, 406 (Section 4), 407. EX1051, ¶42.

EX1006, pp. 399, 407-08; POR, pp. 24-26; Reply, p. 7; Sur-Reply, pp. 5-7

Petitioners' Response: Look at Error Rates for 1mm – 2mm Icons

Petitioners: Mean error rates show lower error rates for Direct Off versus Direct On.

However:

- This includes 1mm – 2mm target sizes, substantially smaller than in Hisatomi (see below).
- At 2.5mm and 3mm target sizes there is no significant difference in error rates between Direct On (touch) and Direct Off.
- At 3mm and larger target sizes Ren indicates that Direct On (touch) has a lower error rate than Direct Off.

And:

- What about selection time, which shows that Direct On (touch) is better? Petitioners are silent.

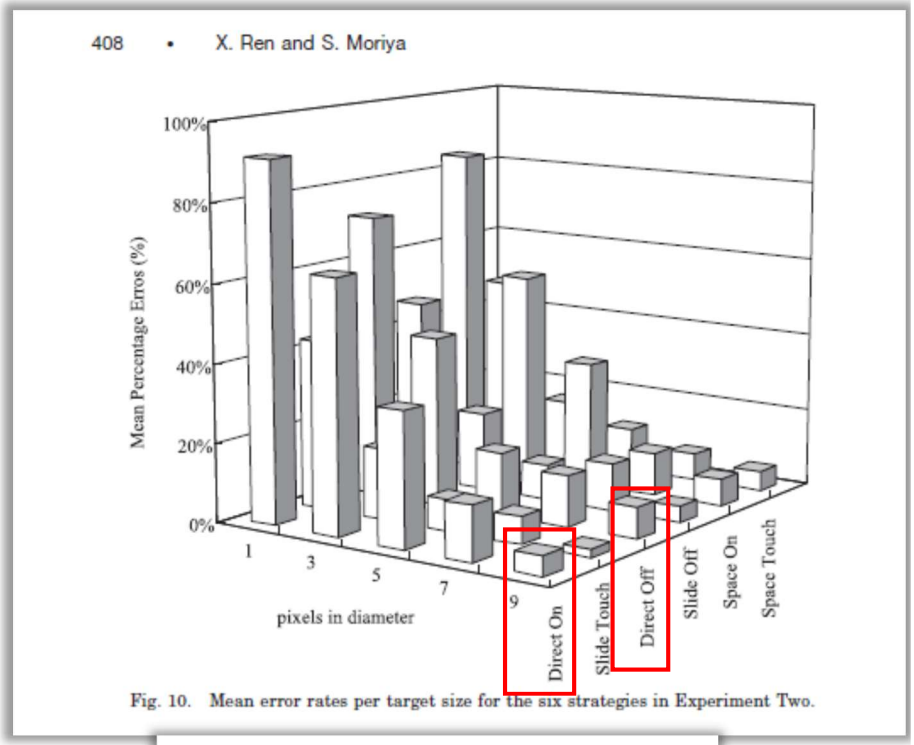


Fig. 10. Mean error rates per target size for the six strategies in Experiment Two.

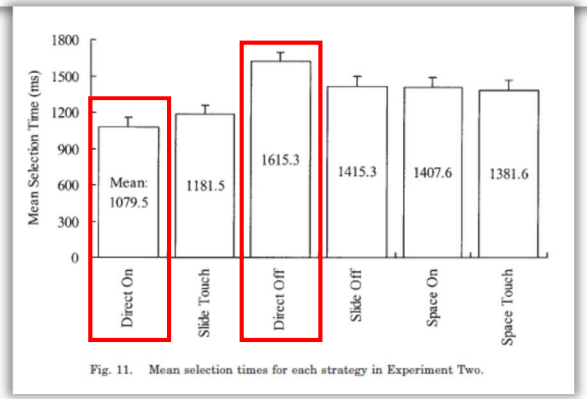


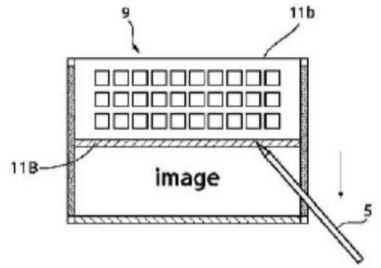
Fig. 11. Mean selection times for each strategy in Experiment Two.

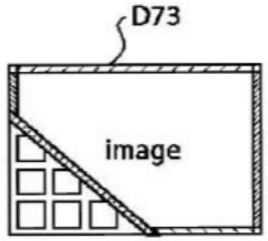
Hisatomi's Icons: At Least 3mm

Hisatomi is notebook-sized:

[0012] The portable information processing device 01 is a notebook-sized portable information terminal (PDA) that is mounted with an image display screen 09 with the capability to display full-color image information in high definition, and receives the coordinate instructions mainly from a pen-type input device 05.

PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,812,993 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §4

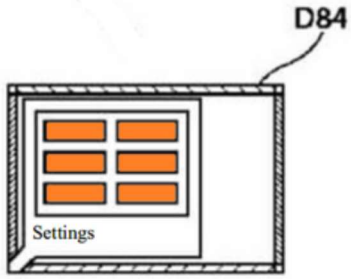




EX1004, FIGs 7, 27; *see id.*, ¶¶[0025], [0087].

DECLARATION OF CRAIG ROSENBERG, Ph.D.

pixels [approximately 3 mm], ..." EX1006, at 399. For comparison, an icon on the Home Screen of an iPhone is about 11 mm in horizontal diameter. Given the size of the Hisatomi display, the icons in the pull out menus would have been understood to be at least 3mm in diameter, and very likely much larger. So, Ren does not teach a POSA that there would have been any benefit in terms of a lower mean error rate to using the Direct Off as opposed to the Direct On strategy.



EX1004, FIG. 30 (annotated, icons in orange); *see also id.*, FIGS. 27, 28, 29, 31.

Ex1005, ¶0012; Pet., pp. 34, 36; EX2013, ¶93; POR, pp. 25-26; Sur-Reply, pp. 5-7

No Reason to Modify Hisatomi's Touch-Activated GUI Buttons

DECLARATION OF CRAIG ROSENBERG, Ph.D.

97. Another reason that a POSA would have seen no reason to change the Hisatomi interface to make the GUI function buttons tap-activatable rather than touch-activatable is that a POSA would have perceived no deficiency in Hisatomi that would have been remedied by making that change. The principal reason a programmer would have coded an action to be executed upon lift-off from the display as opposed to upon touch would be to differentiate from certain functions executed based on a sustained contact with the display, such as a drag and drop operation. For example, in Microsoft Windows in 2002 a "mouse down" (touch) operation on a desktop icon would enable a user to drag the icon to another location on the display but would not activate the function represented by the icon; that would only happen if the user conducted a quick "mouse down" - "mouse up" (tap) operation. In Hisatomi, however, there is no disclosure that the pull-out menu icons are movable via a drag and drop operation, nor do the images in Hisatomi suggest that they would have been. There would therefore have been no benefit to delaying activation after the initial touch to detect an "OFF" event (mouse up) in Hisatomi.

98. As discussed above, a POSA would have understood from Ren that exchanging Hisatomi's GUI buttons (Direct On) for an a→c→a Direct Off activation interface would have provided no benefit to Hisatomi in terms of speed of execution, reduced error rates, ease of use, or any other relevant metric, and would have understood that doing so would have denigrated the Hisatomi interface with respect to at least speed and accuracy. In light of the teaching of Ren, particularly where a user is likely to be using applications for which responsiveness and accuracy are important (such as a character input function or an image processing function, like Hisatomi's B and C classification menus, EX1005, ¶0022), touch-activated buttons would be preferred by a POSA.

Petitioners Fail to Identify a Credible Motivation

Petitioners say:	However:
• Hisatomi identifies no benefit for touch over tap.	• Patent Owner bears no burden to show that it does.
• Tap was a common selection technique.	• Patent Owner does not contend otherwise, but this does not carry Petitioners' burden.
• Tap would differentiate from drag.	• No benefit – drag is used to open the pull-out menu, not to activate GUI buttons.
• Error correction, if a→b→c→a = tap.	• False premise: a→b→c→a =/= tap (see above). • No articulated motivation for icons of size in Hisatomi. • Also: New argument, so should be disregarded.

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2. Hisatomi Does Not Teach Tap Activation of the GUI Buttons.
3. Petitioners Fail to Show a Motivation to Combine Ren and Hisatomi.

B. <u>Petitioners Fail to Show that Hisatomi's GUI Buttons are Icons for "System Functions."</u>

C. Petitioners Fail to Show that Hansen Teaches the Preamble's "Electronic Device."

D. Petitioners Fail to Show that Hansen Teaches the Use of Icons for "System Functions."

E. Petitioners Fail to Show Any Motivation to Combine Hansen and Gillespie.

F. Petitioners Fail to Show that Either Hisatomi or Hansen Teaches Tap-Activatable Icons that are Not Displayed Within a Window Frame.

G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

What are "System Functions?"

Patent Owner: "Services or settings of the operating system."

1. A non-transitory computer readable medium storing instructions, which, when executed by a processor of an electronic device having a touch-sensitive display screen, cause the processor to enable a user interface of the device, the user interface comprising at least two states, namely, (a) a tap-present state, wherein a plurality of tap-activatable icons for a respective plurality of pre-designated system functions are present, each system function being activated in response to a tap on its respective icon, and (b) a tap-absent state, wherein tap-activatable icons are absent but an otherwise-activatable graphic is present in a strip along at least one edge of the display screen for transitioning the user interface from the tap-absent state to the tap-present state in response to a multi-step user gesture comprising (i) an object touching the display screen within the strip, and (ii) the object gliding on the display screen away from and out of the strip.

Petitioners: ??

- Petition: No construction.
- Bederson's declaration: No construction.
- Bederson's deposition: "I have a clear understanding" of the term, but I won't articulate it.
- Petitioners' Reply: No construction.

System Function: The Specification

Two embodiments:

- If there is a current active application, then the icons represent services or functions for the current active application.

- If there is no current active application, then the icons represent services or settings of the operating system.

Patent No.: US 8,812,993 B2

FIG. **3** shows that if the first function **21** is activated, then the display area **3** is adapted to display icons **211**, **212**, **213**, **214**, **215**, **216** representing services or functions depending on the current active application. One of the icons, in the figure exemplified by icon **211**, always represents a "help"-service, regardless of application. Any key that, because of lack of space on the display area, or because the key should be hidden from the active application, or because of any other reason is not shown on the display area of an active application, can be represented by one of the icons **212**, **213**, **214**, **215**, **216** that is shown when the first function **21** is activated.

If for instance the active application handles a picture, then the icons that are shown when the first function is activated can be services such as "save to disk", "send as SMS", or "delete" and they can be settings such as "resolution", "colour", or "brightness".

If no application is currently active on the computer unit, then the icons **211**, **212**, **213**, **214**, **215**, **216** are adapted to represent services or settings of the operations system of the computer unit, such as background picture, clock, alarm **215**, users **213**, help **211**, etc.

System Function: The Prosecution File

The touch-and-glide user gesture in Gough is used for opening a keypad. The one-stroke Palm gesture in Carlson is used for one of five options; namely, (1) turning a backlight on and off, (2) opening a keyboard, (3) opening a graffiti help, (4) locking the Palm, and (5) sending a currently selected memo, to-do-item, calendar appointment or address book entry to a nearby Palm device within infrared range. None of these functions transitions the user interface to a home state that presents controls for a plurality of pre-designated system functions.

The SwitchHack utility described on page 7 and in Figure 1.3 of Pogue opens a pop-up window within a running application that allows a user to toggle between the running application and a different application selected from a list of recently run applications. As such, this utility does not transition the user interface to a home state that presents controls for a plurality of pre-designated system functions.

The Swipe utility launcher described on page 30 of Pogue allows a user to define up to seven pen actions, each triggered by a single pen movement, starting in the silkscreened area at the bottom of the Palm screen and moving into the upper half of the screen. The different strokes are distinguished by the direction and the start location of the swipe. However, this utility can only be configured to associate its various sweep gestures with the five options listed above, or with a desk accessory installed on the Palm. Desk accessories are applications that are coded so that they do not appear in the standard screen when a user taps the silkscreen applications button. E.g., a desk accessory may turn a backlight on, display a clock, lookup a phone number, or pop up a calculator. As such, this utility does not transition the user interface to a home state that presents controls for a plurality of pre-designated system functions.

A "system function" is <u>not</u>, among other things:

- Keyboard character entry.
- Controls in a window for toggling between applications.
- Keys and controls in a calculator application.

EX1003, at 414-15; Sur-Reply, p. 9

Petitioners' Response: Look at Cancelled Claims for an Irrelevant Point

Petitioners Say:

- Prosecution file → "system function" includes an application.

23. (new) The computer readable medium of claim **21**, wherein the plurality of applications includes an alarm clock application.

24. (new) The computer readable medium of claim **21**, wherein the device comprises a clock, wherein the plurality of applications includes an application for setting the time for the clock.

25. (new) The computer readable medium of claim **21**, wherein the plurality of applications includes an application for configuring a background picture for the touch sensitive display.

26. (new) The computer readable medium of claim **21**, wherein the plurality of applications includes a help application.

Red Herring Alert:

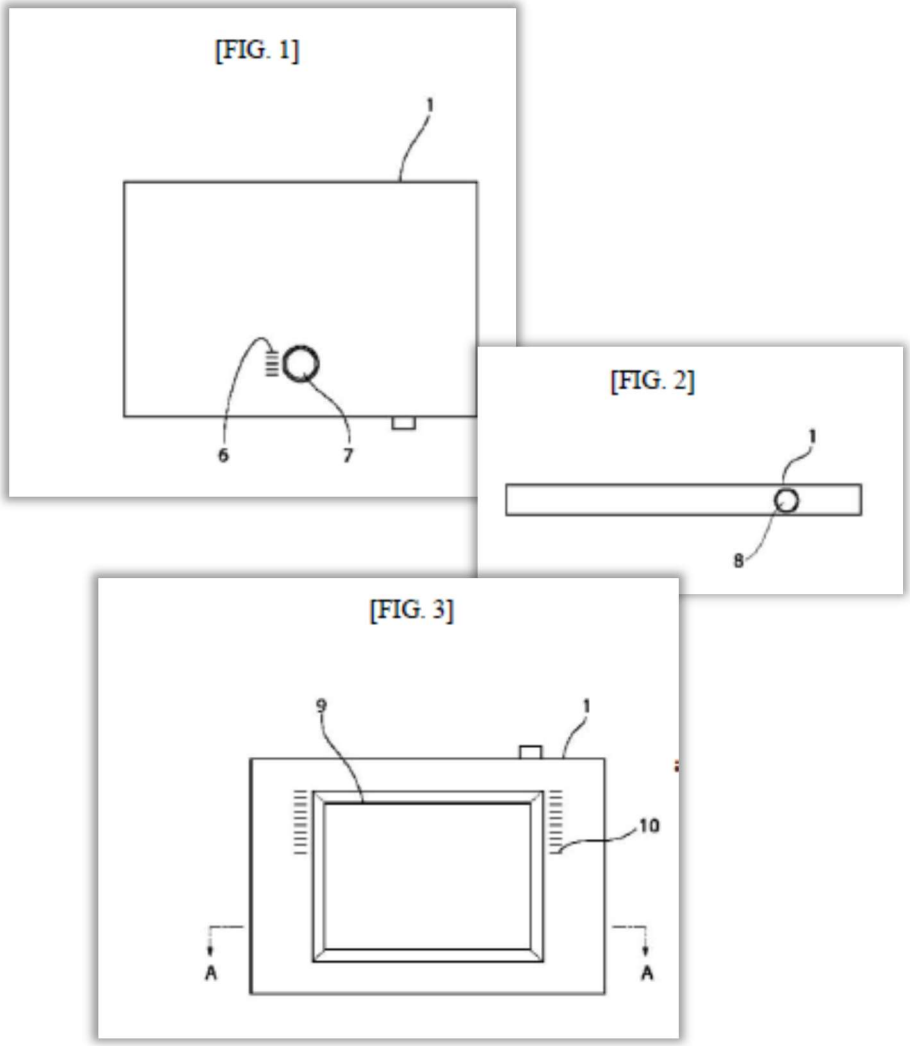
- The claim from which these claims depended recited "applications," not "system functions;" different scope.
- These claims were cancelled; they are not at issue here.

21. (new) A computer readable medium storing computer program code, which, when executed by a mobile handheld device that has a touch sensitive display, instructs the device (i) to display a representation of a function in the touch sensitive display, (ii) to display a plurality of icons in the touch sensitive display, each icon representing an application, in response to a multi-step operation comprising an object touching the touch sensitive display at a location where the function representation is displayed, and the object gliding along the touch sensitive display away from the touched location, and (iii) to activate one of the applications in response to a tap on its icon.

EX1003, at 567-68, 572-73; Sur-Reply, pp. 10-11

Hisatomi Discloses a Digital Camera

[0012] The portable information processing device 01 is a notebook-sized portable information terminal (PDA) that is mounted with an image display screen 09 with the capability to display full-color image information in high definition, and receives the coordinate instructions mainly from a pen-type input device 05.
[0013] On the front side shown in FIG. 1, a camera part 07 and a microphone 06 that records sound data have been configured.
[0014] A shutter switch 08 has been configured on the upper surface side shown in FIG. 2. The shutter switch 08 is constituted with a 2-stage switch, when the 1st-stage switch is turned on, the camera will be in a shooting standby state, and the finder image information will be displayed on the image display screen 09. Then, when the 2nd-stage switch is turned on, shooting is performed and the image is recorded.
[0015] The back side shown in FIG. 3 is a side on which the operation is mainly performed when the user uses the portable information processing device 01. The touch panel sensor 11 on the image display screen 09 is touched by the pen-type input device 05, the coordinate is designated by this touch, and various functions can be selected. 10 is the speaker.



EX1005, ¶¶0021-15; Figs. 1-3; POR, pp. 30-33; Sur-Reply, p. 14

The Problem Hisatomi Sought to Solve: A Digital Camera Problem

[0004]
[Problems to be solved by the invention] When such pull-down menus or pull-up menus are applied to a conventional portable information terminal with a narrow display screen, the menu will cover the main image that should be displayed. For this reason, there is no choice but to accept the result that the menu will be displayed as small as possible, and the menu has unfavorably covered a part of the main image. However, if a small menu is displayed, it will be difficult to read; on the contrary, if a large menu is displayed, there is a problem that many areas of the main image have been unfavorably covered by the menu. This problem increases as the number of function items included in the menu increases.

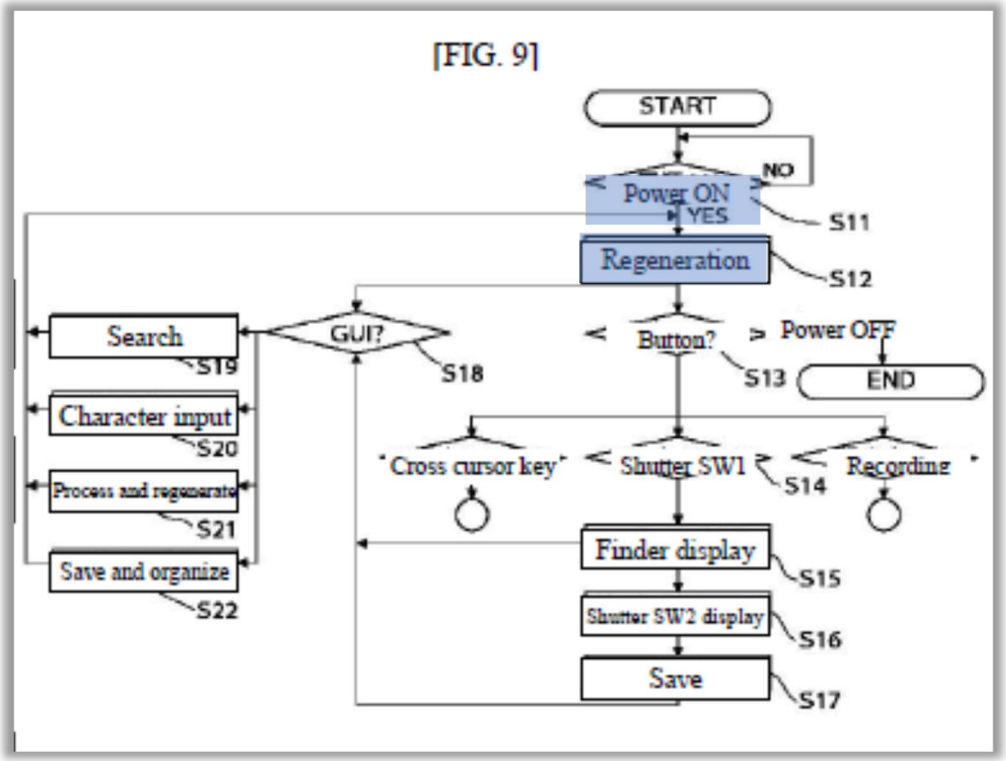
[0005] By the way, there may be a case when it is desired to display the menu and the main image simultaneously to perform an editing work, but in such a case, even if the menu doesn't cover the whole main image, the menu only hides a part of the main image, if there is important information in the hidden part, it will hinder editing work. Therefore, in such a case, it is not preferable that the main image is partially covered.

[0006] This invention has been made in view of such kind of problems, and the purpose of this invention is to provide an information processing device, a function list display means, and a storage medium that does not hinder any editing work even if a menu and a main image are simultaneously displayed at a small image display part.

EX1005, ¶¶0004-06; Sur-Reply, pp. 14-15

Hisatomi's "System" is a Camera Application

[0034] When the main power supply is turned on (YES in S11), the images taken in the past are regenerated and it will become a display state possible to be viewed like an album (S12).
[0035] In this state, there is a button (hard key) operation (S13), and if it is the process of the power switch, the power can be turned off. If that is the operation (half press) of the 1st-stage switch SW1 of the shutter switch 08 (S14), the image will be displayed on the viewfinder (S15), and if that is the operation (fully press) of the 2nd-stage switch SW2 of the shutter switch 08 (S16), the image taken will be stored in the flash memory 24 (S17).
[0036] After the process of step S15 or step S17 or the process of step S12, when the GUI function button was selected and operated by the input device 05 (S18), corresponding to the selected function, search (S19), character input (S20), processing/editing (S21), saving/organizing (S22), etc. will be executed.



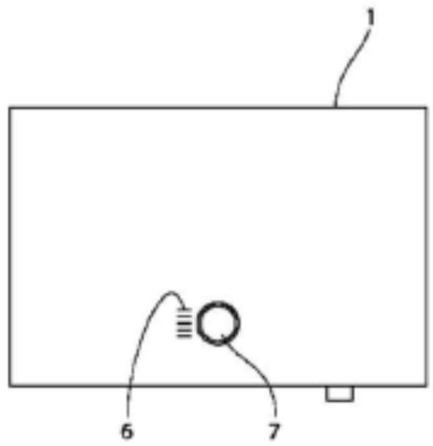
EX1005, ¶¶34-36, Fig. 9; POR, pp. 30-33; Sur-Reply, p. 14

Hisatomi's GUI Buttons Are Not Icons for a Plurality of System Functions

DECLARATION OF DR. BENJAMIN B. BEDERSON

178. As discussed in reference to claim 5, Hisatomi discloses the use of numerous different system functions that may be included within the function lists, including character input, color palette selection, image editing or processing, word processing, search, saving, user settings, and more detailed settings. Hisatomi discloses a device that includes a camera and can be used to capture, edit, save, search, etc., photographs. EX1004, 0013-14, FIG. 1.

[FIG. 1]



But:

Paragraphs 13-14 and Figure 1 describe hardware, not software. There are no icons.

[0013] On the front side shown in FIG. 1, a camera part 07 and a microphone 06 that records sound data have been configured.
[0014] A shutter switch 08 has been configured on the upper surface side shown in FIG. 2. The shutter switch 08 is constituted with a 2-stage switch, when the 1st-stage switch is turned on, the camera will be in a shooting standby state, and the finder image information will be displayed on the image display screen 09. Then, when the 2nd-stage switch is turned on, shooting is performed and the image is recorded.

Hisatomi's GUI Buttons Are Not Icons for a Plurality of System Functions (cont'd)

Bederson: Hisatomi's "system functions" include "character input, color palette selection, image editing or processing, word processing, search, saving, user settings, and more detailed settings."

[0022] As a specific example of functions stored in the A to D classification menus, in the A classification menu, a search function that searches for a desired image from the images that have been taken and saved in the past is summarized; in the B classification menu, the character input function that adds characters to the image is summarized; and in the C classification menu, the processing and editing function that adds special effects to the image are summarized. Moreover, the B classification menu is displayed as a pull-out menu in the image display screen 09, various functional processes can be performed, so by placing the B classification menu at a location at the top of the image display screen 09 to be described later with reference to FIG. 7, when writing to an image or selecting a function, it will be possible to prevent the input device 05 or hand from hiding the image.

[0023] In the D classification menu, the functions that specify the save destination of the data of image that has undergone the image processing, such as saving and organizing functions, etc., are summarized.

'993 Patent: These are functions for an active application:

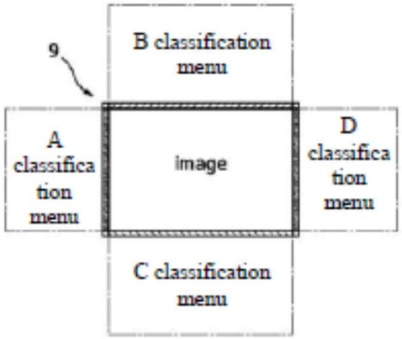
FIG. **3** shows that if the first function **21** is activated, then the display area **3** is adapted to display icons **211**, **212**, **213**, **214**, **215**, **216** representing services or functions depending on the current active application. One of the icons, in the figure exemplified by icon **211**, always represents a "help"-service, regardless of application. Any key that, because of lack of space on the display area, or because the key should be hidden from the active application, or because of any other reason is not shown on the display area of an active application, can be represented by one of the icons **212**, **213**, **214**, **215**, **216** that is shown when the first function **21** is activated. If for instance the active application handles a picture, then the icons that are shown when the first function is activated can be services such as "save to disk", "send as SMS", or "delete" and they can be settings such as "resolution", "colour", or "brightness".

Hisatomi's "Search" Function: Images, Not Icons for a Plurality of System Functions

[0022] As a specific example of functions stored in the A to D classification menus, in the A classification menu, a search function that searches for a desired image from the images that have been taken and saved in the past is summarized; in the B classification menu, the character input function that adds characters to the image is summarized; and in the C classification menu, the processing and editing function that adds special effects to the image are summarized. Moreover, the B classification menu is displayed as a pull-out menu in the image display screen 09, various functional processes can be performed, so by placing the B classification menu at a location at the top of the image display screen 09 to be described later with reference to FIG. 7, when writing to an image or selecting a function, it will be possible to prevent the input device 05 or hand from hiding the image.

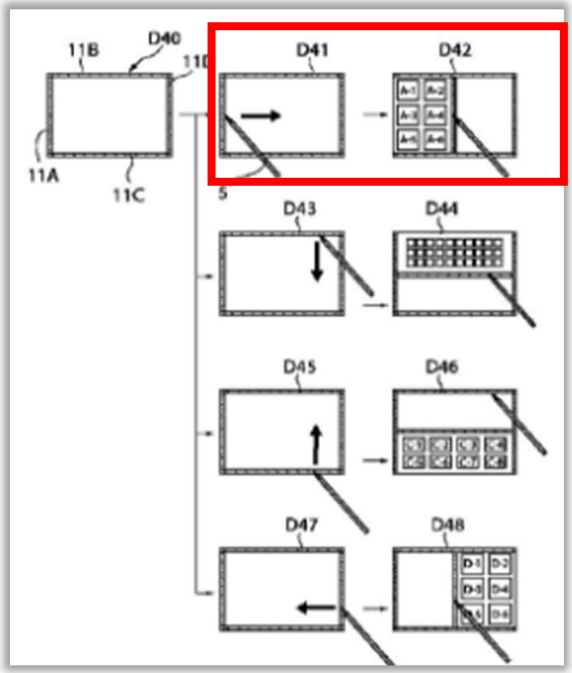
[0023] In the D classification menu, the functions that specify the save destination of the data of image that has undergone the image processing, such as saving and organizing functions, etc., are summarized.

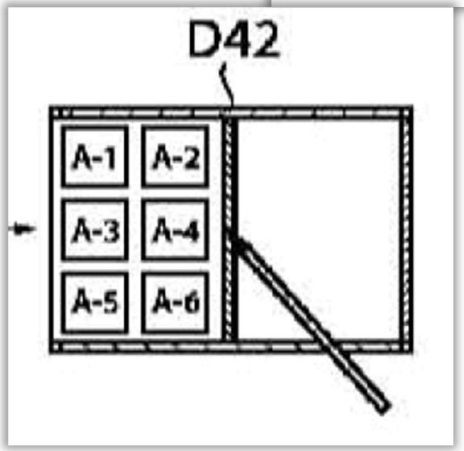
[FIG. 6]



[0073] FIG. 19 is a figure which shows the screen of the image display screen 09 for the purpose of explaining the relationship between the pull-out menu display trigger areas 11A to 11D and the A to D classification menus.

[0075] The screen D41 shows the pull-out menu display trigger area 11A to be selected when pulling out the A classification menu and the pull-out direction, and the screen D42 shows the state in which the A classification menu was fully pulled out to the maximum pull-out amount position.





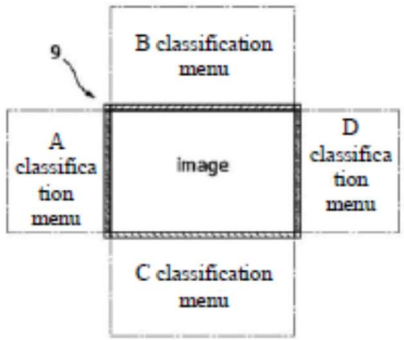
EX1005, ¶¶0022-23; Fig. 6, Fig. 19; Sur-Reply, pp. 12-13

Hisatomi's "Character Input" Function: Character Entry Keys

[0022] As a specific example of functions stored in the A to D classification menus, in the A classification menu, a search function that searches for a desired image from the images that have been taken and saved in the past is summarized; in the B classification menu, the character input function that adds characters to the image is summarized; and in the C classification menu, the processing and editing function that adds special effects to the image are summarized. Moreover, the B classification menu is displayed as a pull-out menu in the image display screen 09, various functional processes can be performed, so by placing the B classification menu at a location at the top of the image display screen 09 to be described later with reference to FIG. 7, when writing to an image or selecting a function, it will be possible to prevent the input device 05 or hand from hiding the image.

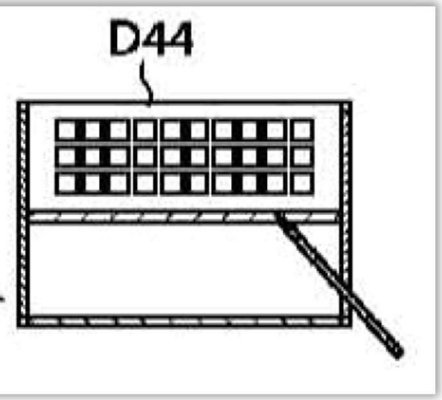
[0023] In the D classification menu, the functions that specify the save destination of the data of image that has undergone the image processing, such as saving and organizing functions, etc., are summarized.

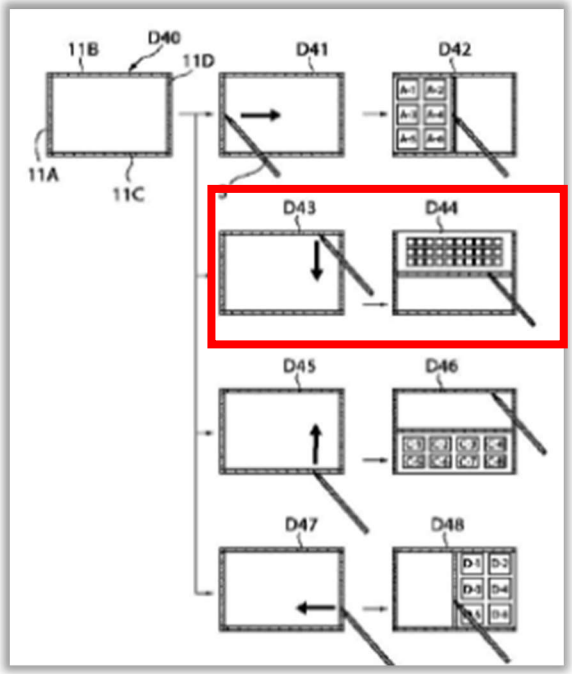
[FIG. 6]



[0073] FIG. 19 is a figure which shows the screen of the image display screen 09 for the purpose of explaining the relationship between the pull-out menu display trigger areas 11A to 11D and the A to D classification menus.

[0077] The screen D43 shows the pull-out menu display trigger area 11B to be selected when pulling out the B classification menu and the pull-out direction, and the screen D44 shows the state in which the B classification menu was fully pulled out to the maximum pull-out amount position.





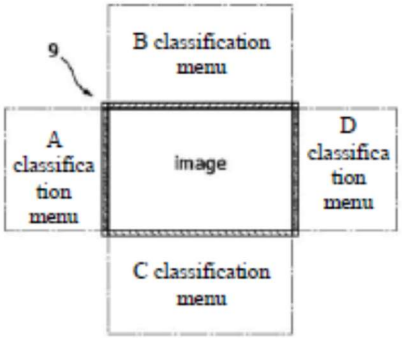
EX1005, ¶¶0022-23; Fig. 6, Fig. 19; Sur-Reply, pp. 12-13

Hisatomi's "Image Editing" Function: Images, Not Icons for a Plurality of System Functions

[0022] As a specific example of functions stored in the A to D classification menus, in the A classification menu, a search function that searches for a desired image from the images that have been taken and saved in the past is summarized; in the B classification menu, the character input function that adds characters to the image is summarized; and in the C classification menu, the processing and editing function that adds special effects to the image are summarized. Moreover, the B classification menu is displayed as a pull-out menu in the image display screen 09, various functional processes can be performed, so by placing the B classification menu at a location at the top of the image display screen 09 to be described later with reference to FIG. 7, when writing to an image or selecting a function, it will be possible to prevent the input device 05 or hand from hiding the image.

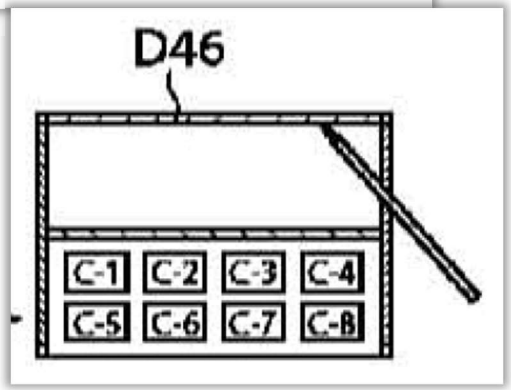
[0023] In the D classification menu, the functions that specify the save destination of the data of image that has undergone the image processing, such as saving and organizing functions, etc., are summarized.

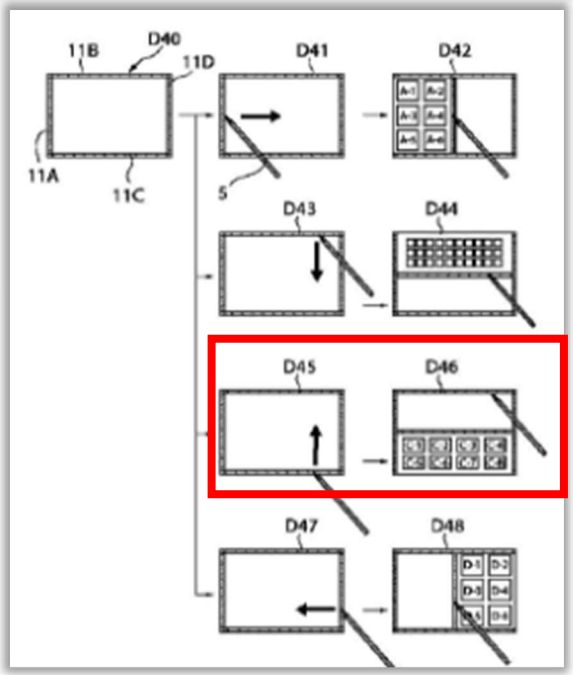
[FIG. 6]



[0073] FIG. 19 is a figure which shows the screen of the image display screen 09 for the purpose of explaining the relationship between the pull-out menu display trigger areas 11A to 11D and the A to D classification menus.

[0078] The screen D45 shows the pull-out menu display trigger area 11C to be selected when pulling out the C classification menu and the pulling direction, and the screen D46 shows the state in which the C classification menu was fully pulled out to the maximum pull-out amount position.





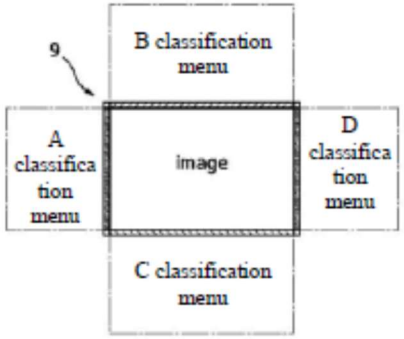
EX1005, ¶¶0022-23; Fig. 6, Fig. 19; Sur-Reply, pp. 12-13

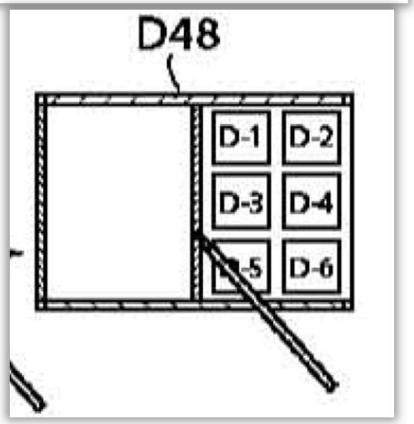
Hisatomi's "Save Image" Function: Images, Not Icons for a Plurality of System Functions

[0022] As a specific example of functions stored in the A to D classification menus, in the A classification menu, a search function that searches for a desired image from the images that have been taken and saved in the past is summarized; in the B classification menu, the character input function that adds characters to the image is summarized; and in the C classification menu, the processing and editing function that adds special effects to the image are summarized. Moreover, the B classification menu is displayed as a pull-out menu in the image display screen 09, various functional processes can be performed, so by placing the B classification menu at a location at the top of the image display screen 09 to be described later with reference to FIG. 7, when writing to an image or selecting a function, it will be possible to prevent the input device 05 or hand from hiding the image.

[0023] In the D classification menu, the functions that specify the save destination of the data of image that has undergone the image processing, such as saving and organizing functions, etc., are summarized.

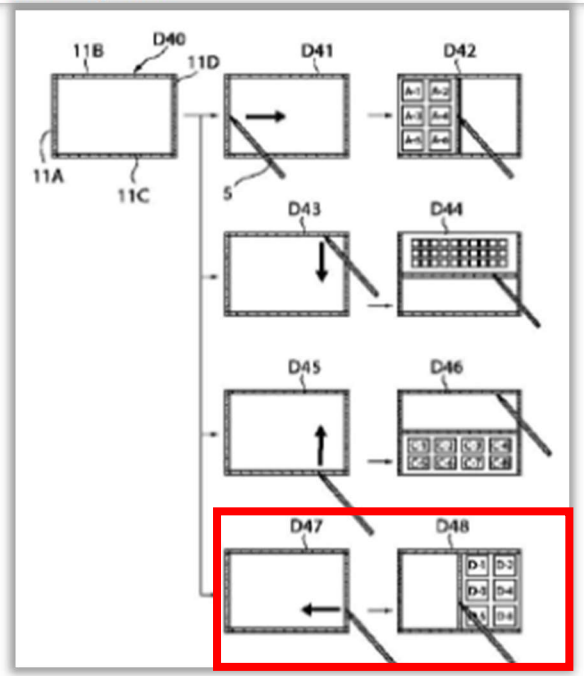
[FIG. 6]





[0073] FIG. 19 is a figure which shows the screen of the image display screen 09 for the purpose of explaining the relationship between the pull-out menu display trigger areas 11A to 11D and the A to D classification menus.

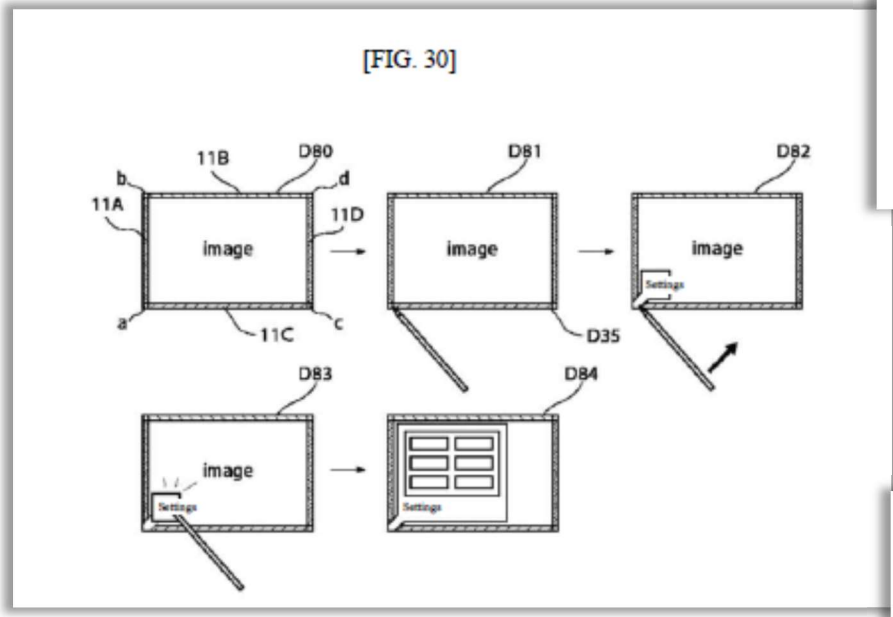
[0079] The screen D47 shows the pull-out menu display trigger area 11D to be selected when pulling out the D classification menu and the pulling direction, and the screen D48 shows the state in which the D classification menu was fully pulled out to the maximum pull-out amount position.



EX1005, ¶¶0022-23; Fig. 6, Fig. 19; Sur-Reply, pp. 12-13

Hisatomi's "Settings" Menu

Petitioners also point to Hisatomi's "'detailed settings menu' related to the 'start button'" depicted in Figure 30 (screen D84).



But:

- The "start button" here is the start button for the settings menu (not the device):

> [0125] In step S705, when the coordinates of trigger area a are detected by the touch of the input device 05, as shown on screen D82 in FIG. 30, the start button for the settings menu will be pop-up displayed, this part will be highlighted and displayed, and at the same time, a buzzer sound will be generated. Moreover, if the input device 05 went OFF here, the process will return to step S701.

- No indication that these "settings" are for a system function rather than Hisatomi's camera application:

> [0114] In other words, four corner positions of the image display screen 09 that avoided the pull-out menu display trigger areas 11A to 11D are set as trigger areas a, b, c and d, and functions that are rarely used such as special settings, etc. (for example, detailed settings, user settings, etc.) will be assigned to these areas.

Reply, pp. 15-16; EX1005, ¶¶0114, 0125, Fig. 30; EX1051, ¶68; Sur-Reply, p. 13

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C. Petitioners Fail to Show that Hansen Teaches the Preamble's "Electronic Device."

D. Petitioners Fail to Show that Hansen Teaches the Use of Icons for "System Functions."

E. Petitioners Fail to Show Any Motivation to Combine Hansen and Gillespie.

F. Petitioners Fail to Show that Either Hisatomi or Hansen Teaches Tap-Activatable Icons that are Not Displayed Within a Window Frame.

G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

An “Electronic Device” = A Mobile Handheld Computer

TECHNICAL FIELD

The present invention relates to a user interface for a mobile handheld computer unit, which computer unit comprises a touch sensitive area, and which touch sensitive area is divided into a menu area and a display area.

The computer unit is adapted to run several applications simultaneously and to present any active application on top of any other application on the display area.

The present invention also relates to an enclosure for a handheld computer unit

Mobile handheld computers are known in various embodiments. One kind of handheld computer is the personal digital assistant (PDA), which is getting more and more powerful.

Another kind of handheld computer unit is the mobile phone, which also is getting more and more powerful. There are also examples of where the mobile phone and the PDA are merging into one unit.

A third kind of handheld computer is the laptop computer, which is getting smaller and smaller, even competing in size with the PDA’s.

The need to manage more information has led the development towards new solutions regarding user interfaces and navigation. The PDA’s and mobile phones are getting larger and larger in order to provide a user-friendly interface.

Since the users have gotten used to small handheld units, it is hard to move towards larger units. This has led to foldable keyboards, different kinds of joy sticks and different kinds of touch sensitive displays and pads intended to help in providing a user interface that is suitable for small handheld computer units.

Technical Problems

It is a problem to provide a user-friendly interface that is adapted to handle a large amount of information and different kinds of traditional computer-related applications on a small handheld computer unit.

It is a problem to provide a user interface that is simple to use, even for inexperienced users of computers or handheld devices.

It is a problem to provide a small handheld computer unit with an easily accessible text input function.

It is also a problem to provide a simple way to make the most commonly used functions for navigation and management available in the environment of a small handheld computer unit.

Solution

Taking these problems into consideration, and with the staring point from a user interface for a mobile handheld computer unit, which computer unit comprises a touch sen-

DESCRIPTION OF EMBODIMENTS AT PRESENT PREFERRED

FIG. **1** illustrates a user interface for a mobile handheld computer unit. The user interface according to the present

As shown in FIG. **13**, the present invention relates to a user interface for a hand held mobile unit that preferably can be manageable with one hand. Hence the present invention

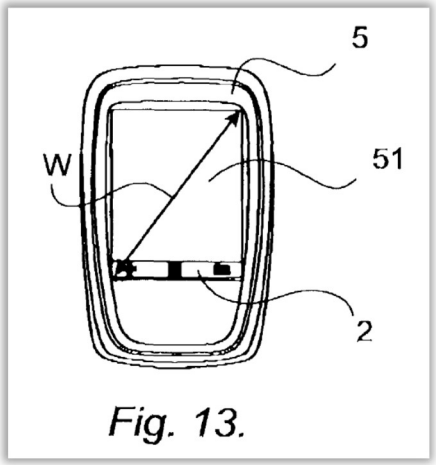


Fig. 13.

Claim 1 Requires "An Electronic Device"

1. A non-transitory computer readable medium storing instructions, which, when executed by a processor of an electronic device having a touch-sensitive display screen, cause the processor to enable a user interface of the device, the user interface comprising at least two states, namely, (a) a tap-present state, wherein a plurality of tap-activatable icons for a respective plurality of pre-designated system functions are present, each system function being activated in response to a tap on its respective icon, and (b) a tap-absent state, wherein tap-activatable icons are absent but an otherwise-activatable graphic is present in a strip along at least one edge of the display screen for transitioning the user interface from the tap-absent state to the tap-present state in response to a multi-step user gesture comprising (i) an object touching the display screen within the strip, and (ii) the object gliding on the display screen away from and out of the strip.

Here, that means one device having all the recited structure. *Convolve, Inc. v. Compaq Comput. Corp.*, 812 F.3d 1313, 1321 (Fed. Cir. 2016); *Varma v. Int'l. Bus. Machines Corp.*, 816 F.3d 1352 (Fed. Cir. 2016).

Regardless of whether the Board adopts Patent Owner's construction.

Convolve, Inc. v. Compaq Comput. Corp. 812 F.3d 1313, 1321 (Fed. Cir. 2016)

- Claim: "User interface for…working with a processor…comprising:" a means for controlling seek time on a data storage device, and a "means for causing the processor to output commands to the data storage device."
- "[T]he language and structure of claim 1 demonstrate a clear intent to tie the processor that 'output[s] commands to the data storage device' to the 'user interface.'"
- "This reference to 'the processor,' referring back to the 'a processor' recited in preamble, supports a conclusion that the recited user interface is 'operatively working with' the same processor to perform all of the recited steps. In other words, the claim language requires a processor associated with the user interface to issue the shaped commands of the claims." (emphasis added)
- Conclusion: the claims "require the user interface to work with a single processor in performing all of the claim steps."

Varma v. Int'l. Bus. Machines Corp. 816 F.3d 1352, 1362-63 (Fed. Cir. 2016)

- Claims: recited "a statistical analysis request corresponding to two or more selected investments."
- "Comprising means that the claim can be met by a system that contains features over and above those specifically required by the claim element, but only if the system still satisfies the specific claim-element requirements; the claim does not cover systems whose unclaimed features make the claim elements no longer satisfied."
- The phrase at issue could embrace a system that receives more than one request, provided that "a request" corresponds to two or more selected investments.
- "[H]ere the question is not whether there can be more than one request in a claim-covered system: there can. Rather, the question is whether 'a' can serve to negate what is required by the language following 'a': a 'request' (a singular term) that 'correspond[s]' to 'two or more selected investments.' It cannot."
- "For a dog owner to have 'a dog that rolls over and fetches sticks,' it does not suffice that he have two dogs, each able to perform just one of the tasks."

Hansen Discloses a Conventional Multi-Component Desktop System, Not An Electronic Device

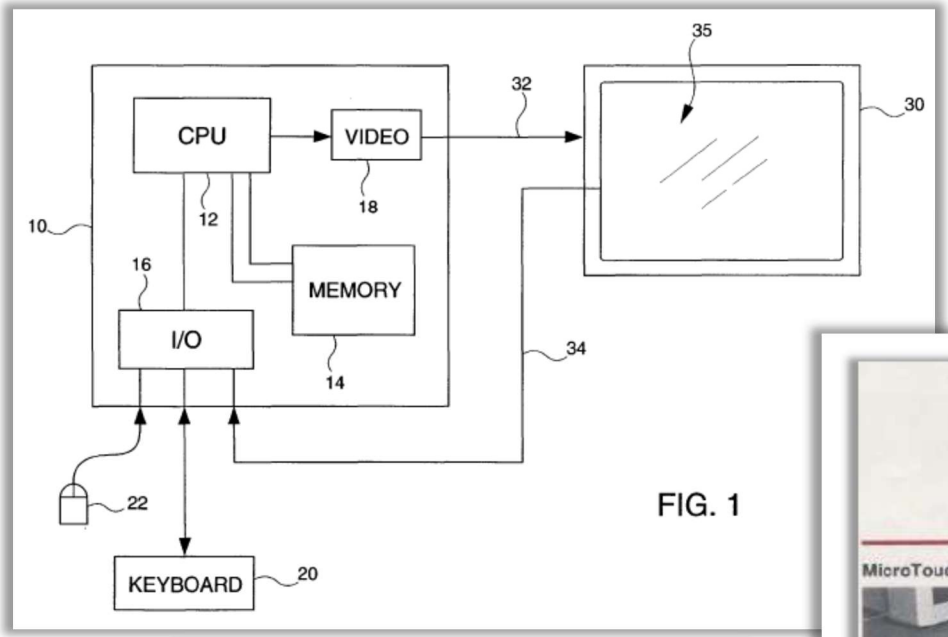
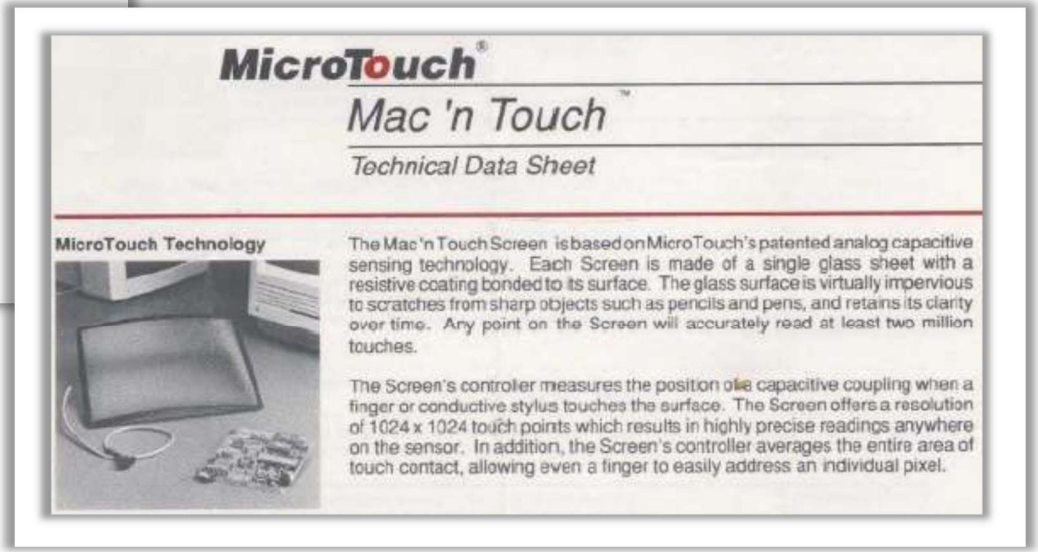


FIG. 1

In the preferred embodiment of the present invention, the video monitor **30** is equipped with a touch-sensitive screen **35**, which overlays the video monitor. The video monitor **30** is coupled to the video controller **18** by a lead **32**. The lead **32** carries the video information that is displayed on the video monitor **30**. A lead **34** couples the touch-sensitive screen **35** to the input/output port **16**. The lead **34** carries an electrical signal that is based upon a sensed change in capacitance on the touch-sensitive screen **35**. The electrical signal is read by the CPU **12** to produce an X,Y signal that indicates where a user has touched the touch-sensitive screen **35**.

An example of a touch-sensitive screen **35** is a Mac-n-Touch™ model made by the Micro-Touch company. This screen has a resolution of **480** vertical gradations by **640** horizontal gradations. The details of the computer system shown in FIG. **1** are well known to those skilled in the art and therefore will not be discussed further.

Conventional component monitor, and separate touch-sensitive screen overlaying the monitor.



MicroTouch®

Mac 'n Touch™

Technical Data Sheet

MicroTouch Technology

The Mac 'n Touch Screen is based on MicroTouch's patented analog capacitive sensing technology. Each Screen is made of a single glass sheet with a resistive coating bonded to its surface. The glass surface is virtually impervious to scratches from sharp objects such as pencils and pens, and retains its clarity over time. Any point on the Screen will accurately read at least two million touches.

The Screen's controller measures the position of capacitive coupling when a finger or conductive stylus touches the surface. The Screen offers a resolution of 1024 x 1024 touch points which results in highly precise readings anywhere on the sensor. In addition, the Screen's controller averages the entire area of touch contact, allowing even a finger to easily address an individual pixel.

EX1029, 4:8-23, Fig. 1; EX2003; POR, pp. 49-52

Petitioners: Let's Speculate and Come Up With New Grounds!

Petitioners:	But:
• Figure 1 may be any form factor	• The only example of a specific form factor is a separate touch-sensitive overlay, the Mac-n-Touch. • Speculation regarding Hansen's form factor does not satisfy Petitioners' burden. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272 (Fed. Cir. 2017).
• POSA would have understood that Hansen "intended" its methods to apply to other computers.	• Obviousness: A new ground: PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,812,993 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §4 Hansen discloses [1.pre] to the extent the preamble is deemed limiting.
• POSA would have found it obvious to apply Hansen's teachings to other computers.	• Again – obviousness, a new ground. • Bederson fails to provide any basis for "obviousness" beyond his ipse dixit.

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G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

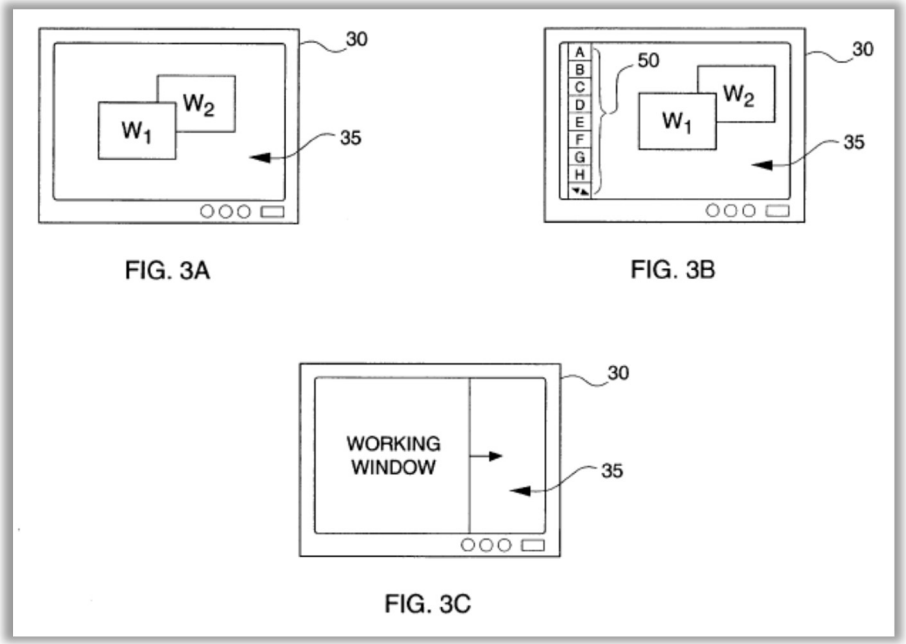
H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

No “Icons for a . . . Plurality of . . . System Functions”

Application running in a working window:

The present method of generating a working window on a video monitor makes the computer system appear more like a real world desk where the user can get a clean sheet of paper by simply dragging a clean sheet of paper from the left-hand side of the desk and placing it into the working area of the desk. The user does not have to enter the command to bring out the working window through a mouse or a keyboard. Furthermore, the method of the present invention does not clutter the screen by producing numerous haphazardly placed windows on the screen. By restricting the video monitor to a working window that overlaps most of the monitor, the user is allowed to more easily concentrate on the application program that is being run. Once the user has finished with the working window, it is moved off the monitor without cluttering the previously displayed windows. Finally, the present method of generating a working window is as intuitive to the user as getting a clean sheet of paper and placing it on the desk top. The user does not have to remember any special commands that have to be typed in or remember how to move the mouse to generate the working window.

Nothing in Hansen suggesting that the icons are for system functions.



Petitioners' New Ground

Petitioners' Reply: "A POSA would have found it obvious" that Hansen's system shipped with programs that were system functions.

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

Even under Neonode's unreasonably narrow construction, a POSA would have found it obvious that Hansen's windows-based operating system—like the Apple MacIntosh™ and the Microsoft Windows™ systems upon which it was based (EX-1029, 1:34-37)—would have shipped with various programs (e.g., a web browser) that were "services…of the operating system," and that one or more of the icons 50 would have corresponded to these operating system programs. EX1051, ¶31.

Obviousness – again, a <u>new ground:</u>

PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 8,812,993 PURSUANT TO 35 U.S.C. §§311–319, 37 C.F.R. §4

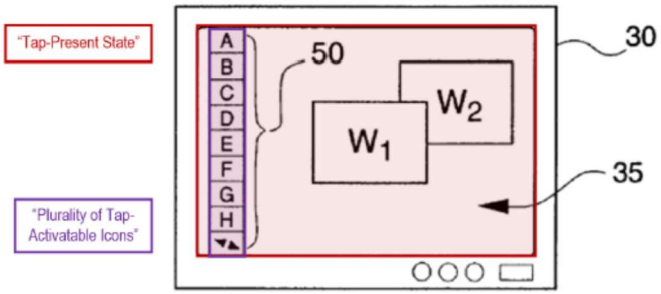


FIG. 3B

EX1029, FIG. 3B (annotated).

Each of the icons 50 "corresponds to a computer program that can be run in [a] working window," and thus, the computer programs corresponding to the icons 50 represent the "*respective plurality of pre-designated system functions*." EX1029, 5:17-36. In discussing prior art personal computer operating systems,

<u>And</u> pure speculation – no explanation as to how or why a POSA would have applied Hansen's method to icons for system functions.

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G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

No Motivation to Import Gillespie's "Affordance" Into Hansen

- Petitioners: Add a graphic to Hansen:

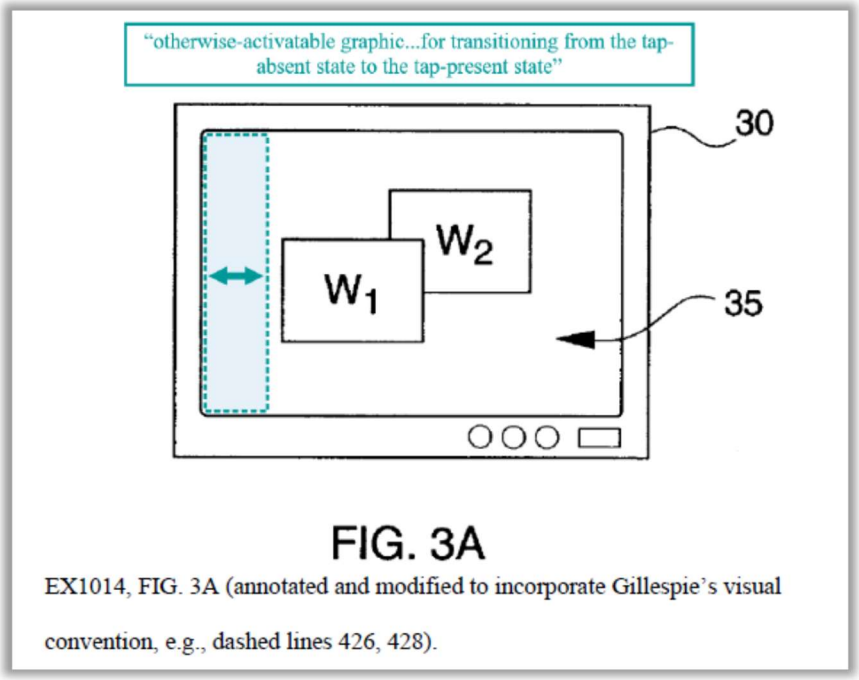

FIG. 3A

EX1014, FIG. 3A (annotated and modified to incorporate Gillespie's visual convention, e.g., dashed lines 426, 428).

- But . . . Hansen sought to <u>reduce</u> clutter, not add to it:

world. Finally, it is desirable to have an operating system where the user can easily eliminate extra windows that appear on a computer so that the screen does not become cluttered.

The present method of generating a working window on a video monitor makes the computer system appear more like a real world desk where the user can get a clean sheet of paper by simply dragging a clean sheet of paper from the left-hand side of the desk and placing it into the working area of the desk. The user does not have to enter the command to bring out the working window through a mouse or a keyboard. Furthermore, the method of the present invention does not clutter the screen by producing numerous haphazardly placed windows on the screen. By restricting the video monitor to a working window that overlaps most of the monitor, the user is allowed to more easily concentrate on the application program that is being run. Once the user has finished with the working window, it is moved off the monitor without cluttering the previously displayed windows. Finally, the present method of generating a working window is as intuitive to the user as getting a clean sheet of paper and placing it on the desk top. The user does not have to remember any special commands that have to be typed in or remember how to move the mouse to generate the working window.

- Petitioners' Response: It's not a window.
- Rejoinder: So what? Whatever you call it, it clutters the screen, so a POSA would not have added it to Hansen.

Pet., p. 69; EX1029, 2:11-14, 6:28-37; POR, pp. 54-56; Sur-Reply, p. 19

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F. <u>Petitioners Fail to Show that Either Hisatomi or Hansen Teaches Tap-Activatable Icons that are Not Displayed Within a Window Frame.</u>

G. Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.

H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

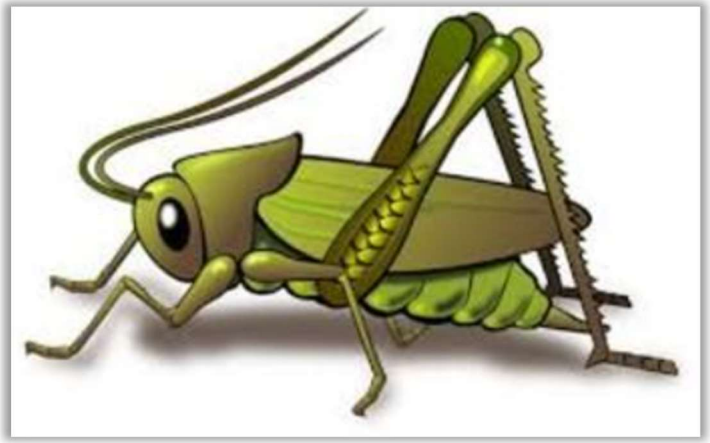
Window Frames Define Boundary Between Different Regions of the GUI

3. The computer readable medium of claim **1**, wherein the tap-present state does not display the tap-activatable icons within a window frame. 5

DECLARATION OF CRAIG ROSENBERG, Ph.D.

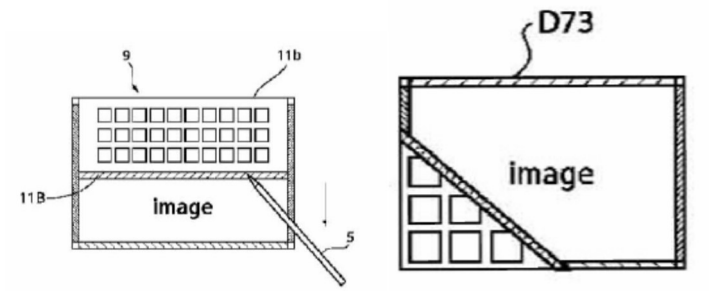
113. Dr. Bederson points to Figures 7 and 28 (image D73), asserting that the icons are not contained within a window frame because "the icons cannot be moved and remain anchored to an area." Pet., p. 51. Whether the icons can be moved is, however, beside the point; what is relevant here is that there is a border (frame) between the windowed content and the remainder of the GUI, and the window displays output from and allows input to one or more processes that may be separate from those executing on the GUI outside the window. In addition, the fact that a border (or frame) between regions of the GUI is movable, while not required, is strongly indicative that a bounded region constitutes a separate window from the rest of the GUI. Petitioners also think it important that Hisatomi's "function list" may be expanded to cover the entire screen, but this again is irrelevant, as the area enclosing the pull-out menus may be contracted at will by the user, just as a window containing a Word document may be expanded to cover an entire display or contracted at will.

Response from Petitioners?



Claim 3 – Hisatomi

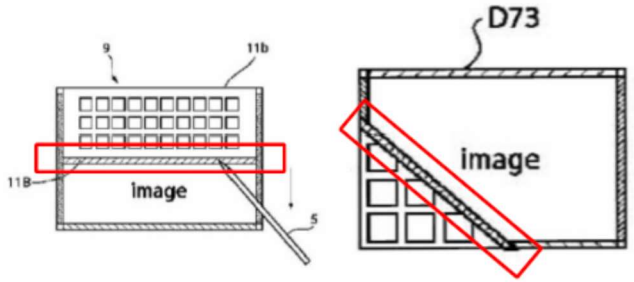
Petitioners: Look at Hisatomi Figs. 7 & 28:



EX1004, FIGS. 7, 28. These icons are not contained within a window frame; the icons cannot be moved and remain anchored to an area. Additionally, Hisatomi teaches the function list may be expanded such that it covers the entire screen. EX1004, ¶[0246]; *see also id.*, ¶¶[0099], [0101]-[0103], [0108] ("the entire display area of the image display screen 09 can be used for displaying the pull-out menu.").

But . . . These clearly show window frames:

114. Dr. Bederson's selected images show that Hisatomi's pull-out menu icons are enclosed within a movable border functionally separating the enclosed icons from the remainder of the GUI:



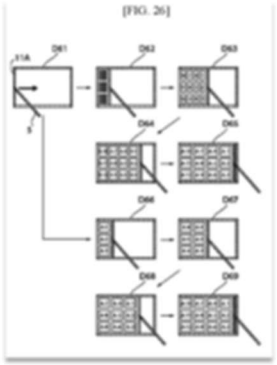
Pet., p. 51. The movable border defines the working area within which Hisatomi's icons may be activated; inputs at a location on the display that is within the area defined by the movable border will execute different functions than they would at the same location if the border were scrolled closed and no longer encompassed that location.

Claim 3 – Hisatomi

And every other of Petitioners' Hisatomi examples depicts a frame:

DECLARATION OF CRAIG ROSENBERG, Ph.D.

116. Dr. Bederson further cites Hisatomi paragraphs 0099, 0101-103 and 0108. But these paragraphs reference Hisatomi Figure 26, and state that "as shown on screens D65 and D69 of FIG. 26 the entire display area of the image display screen 09 will be used for displaying the pull-out menu." EX1005, ¶0101; *see also*, ¶¶0102-103. However, images D65 and D69 of Figure 26 show the icons within a window frame inside the display area, movable horizontally across the display, as shown below:



The cited Hisatomi paragraphs and the above figure do not disclose tap-activatable icons not displayed in a "window frame," as that term would have been understood by a POSA.

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117. Every depiction of pull-out menus in Hisatomi shows them framed by a border that is movable in at least one direction. The movable border defines the working area within which Hisatomi's icons may be activated. As it is scrolled across the screen, the space available for Hisatomi's "image" in the display area is reduced, and as it is scrolled back to the display edge, the space available for Hisatomi's image increases. Consequently, a POSA would understand that Hisatomi's movable "trigger areas" are a window frame, and that the icons in Hisatomi's pull-out menus are displayed within a window frame.

Claim 3 – Hansen

Petitioners: Look at the icon stack:

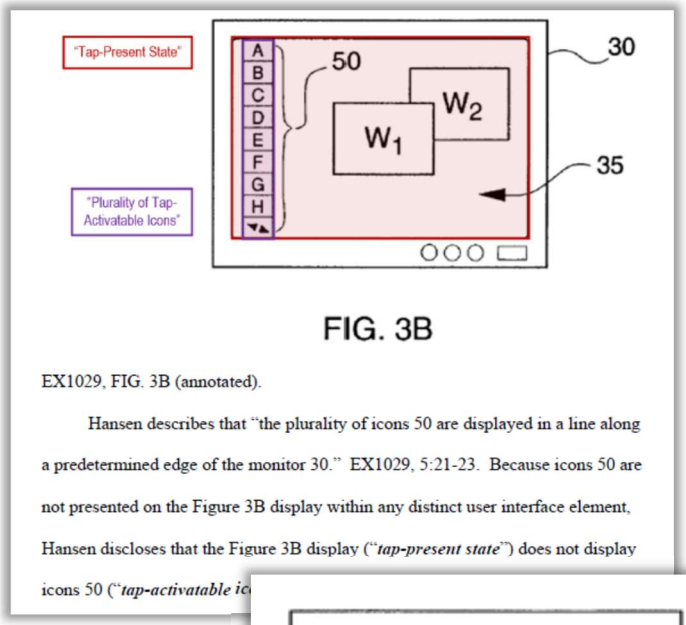

FIG. 3B

EX1029, FIG. 3B (annotated).

Hansen describes that "the plurality of icons 50 are displayed in a line along a predetermined edge of the monitor 30." EX1029, 5:21-23. Because icons 50 are not presented on the Figure 3B display within any distinct user interface element, Hansen discloses that the Figure 3B display ("*tap-present state*") does not display icons 50 ("*tap-activatable ic*

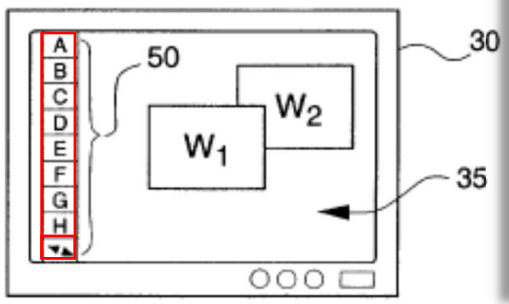

FIG. 3B

But . . . The icon stack is within its own workspace independent of the rest of the GUI:

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170. So, a POSA would understand that Figure 3B, which shows the display after the user has input the first predetermined user input stroke, includes the working window. A POSA would further understand that the working window encloses the icons A-H, because the icons are disposed adjacent the left side of the monitor (where Hansen describes the working window being located) in a block that occupies only a portion of the display and because the opposing arrowheads at the bottom of the icon block indicate that a user can scroll the icon block up or down, showing that the icon block is in its own workspace independent of what is shown on the rest of the display and can be separately manipulated similarly to clicking on a "minimize" or "enlarge" icon on a standard desktop window. This informs a POSA that the icons 50 of Hansen are displayed within a window frame.

Pet., p. 77; EX2013, ¶170; POR, pp. 58-59; Sur-Reply, pp. 21-22

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1. Patent Owner's Construction of "Tap" is Supported by the Specification, the Petition and Petitioners' Expert.
2. Hisatomi Does Not Teach Tap Activation of the GUI Buttons.
3. Petitioners Fail to Show a Motivation to Combine Ren and Hisatomi.

B. Petitioners Fail to Show that Hisatomi's GUI Buttons are Icons for "System Functions."

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G. <u>Petitioners Fail to Show Any Motivation to Add a Clock or Alarm Icon to Hisatomi or Hansen.</u>

H. Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.

Add A Clock Icon? Why?

Persistent clock display – conventional solution, and superior to a clock icon

DECLARATION OF CRAIG ROSENBERG, Ph.D.

136. Dr. Bederson argues that a POSA would have been motivated to include a clock function "because the ability to identify the current time as well as the passage of time without viewing a separate device was desirable across the variety of devices in which Hisatomi teaches its device could be implemented." EX1002, ¶175. This argument may speak to a motivation to add a clock function, but it provides no motivation for a POSA to add a clock icon within a menu of system functions of the '993 Patent, as opposed to a persistent clock display on the screen. A POSA would have viewed requiring a user to activate an icon to see the time as an inferior solution to a persistent clock display in the Hisatomi device. In fact, in 2002, a POSA would have known that the persistent clock display was the typical solution in 2002 (and today) for notebook-sized devices such as Hisatomi, as well as the "variety of devices" referenced by Dr. Bederson.

176. Dr. Bederson states that it would have been desirable for Hansen's icons to include an icon for a clock function because "nearly every user interface" includes a clock function "in some form, whether persistent at the edge of the screen or in the form of an icon" EX1002, ¶215. However, the fact that it was well known to include a clock function as a persistent numerical display at the edge of the display – which was in 2002, and is today, the dominant presentation of a clock function on a desktop implementation such as Hansen's – indicates that a POSA would have seen no deficiency in Hansen that would have been remedied by adding a clock icon to icon list 50. In fact, adding a redundant clock icon to Hansen's display would have cut against Hansen's push to render an uncluttered workspace, and would have been inferior to a persistent display edge presentation as a solution to the "problem" Dr. Bederson identifies. For at least these reasons, a POSA would have seen no reason to add Tanaka's clock icon to Hansen's display.

EX2013, ¶¶136, 176; POR, pp. 42-43, 61; Sur-Reply, p. 22

Add An Alarm Icon? Again – Why?

Hisatomi: No reason to add an alarm function, let alone an alarm icon

DECLARATION OF CRAIG ROSENBERG, Ph.D.

143. Dr. Bederson's sole proffered reason for adding an alarm function as one of Hisatomi's icons is that it would have been desirable to have an alarm that a user could set to manage the amount of time spent on editing functions. EX1002, ¶181. This is a surprising rationale; a POSA in 2002 (and today) would not have considered it important to add an alarm function to a device like Hisatomi's for such a reason, since there were other means of tracking a user's time – such as a persistent clock display on the device, or even an alarm function on a user's digital wristwatch or standalone clock – that would have been considered more than sufficient for this purpose.

Hansen: Would just add clutter

DECLARATION OF CRAIG ROSENBERG, Ph.D.

145. In addition, Dr. Bederson's rationale reflects hindsight bias, driven by our modern experience with smartphones. In 2002, before smartphones that incorporated "lifestyle" functionalities such as photo editing, neither a POSA nor the average consumer would have considered it beneficial to package an alarm with an image editing device. The same is true of the additional implementations listed at Hisatomi's paragraph 243. In my opinion, a POSA would not have regarded the lack of an alarm on any of these devices would not have been considered a "deficiency" to be remedied.

177. Claim 6 recites "[t]he computer readable medium of claim 1, wherein the plurality of pre-designated system functions comprises an alarm function." A POSA would have seen no reason to add an alarm icon to Hansen's display for the reasons, among others, that Hansen sought to de-clutter the desktop rather than add to it, and that an alarm function could easily have been incorporated via a drop-down menu without adding to desktop clutter.

EX2013, ¶¶143, 145, 177; POR, pp. 43-45, 61-62; Sur-Reply, p. 22

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H. <u>Objective Evidence of Nonobviousness Further Undermines Petitioners' Case.</u>

The Neonode Phones Embodied the Claimed Interface

DECLARATION OF JOSEPH SHAIN

5. The Neonode N1 and N2 phones were mobile electronic devices having a memory storing code for, among other things, presenting an interface to a user. The phones had both a processor and a touch-sensitive display screen.

6. Both the Neonode N1 and N2 had three icons that were displayed in a strip along the lower edge of the display immediately following unlocking of the phone. One of the three icons was for the Start Menu. None of these three icons were tap-activatable, nor were there any other tap-activatable icons on the screen immediately after unlocking the phone. The three icons were activatable by

gesture in which a thumb or finger touches the icon, and swipes up toward

center of the screen before lifting off of the screen.

7. When the Start Menu icon was activated, the display presente

menu of icons including an icon for a file manager, and others, all of whic

be activated by a tap gesture.

8. When the N1 and N2 phones displayed tap-activatable icons,

were presented full-screen, not within a window.

9. One of the tap-activatable icons on the Start Menu of both the

N2 phones was an alarm function.

10. The strip at the bottom edge of the display in which the icon for activating the Start Menu was contained was less than a thumb's width in the N1 and N2 phones.

11. To activate the Start Menu of the N1 and N2 phones, the user would touch the Start Menu icon and swipe up on the display toward the top edge of the display, out of the strip containing the Start Menu icon.

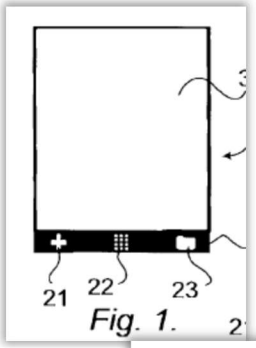


Fig. 1.

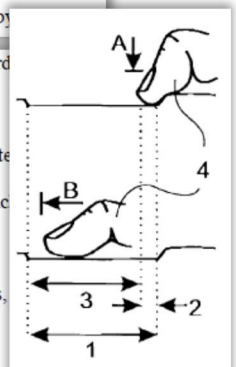


Fig. 2.

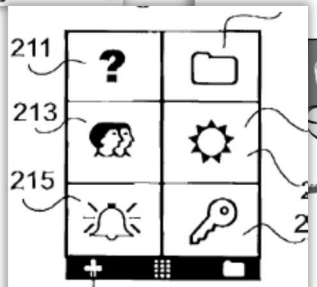


Fig. 3.

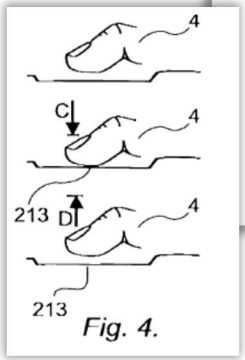
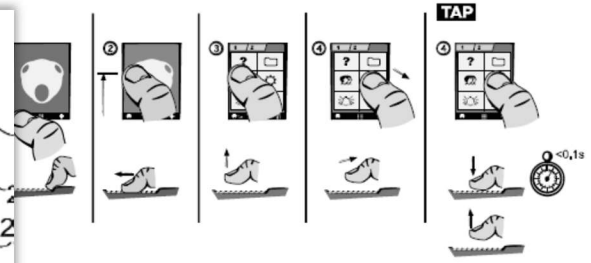


Fig. 4.

N1 QUICK START GUIDE

USING NENO

Start menu



start menu is where you find the applications that are installed on your N1:

1. Sweep from the Neonode symbol and up, on the screen.
2. The sweep shall be about half the height of the screen.
3. When lifting the finger, the start menu should have appeared. if not try sweeping again.
4. Choose the desired application.
5. Tap on the icon of the desired application to start that application.

EX2012; EX2019, ¶¶5-11; POPR, pp. 49-50; POR, pp. 62-63; Sur-Reply, pp. 23-24

Sales of Neonode Phones With the Interface

DECLARATION OF MARCUS BÄCKLUND

9. To the best of my recollection, Neonode had over 100,000 Internet pre-orders, over 300 N1 units per day, which required the customer to pay a substantial down payment to secure the customer's place on the handset's waiting list. These pre-orders were in addition to the over 20,000 pre-orders Neonode received following its initial brand release in December 2002.

10. In addition, Neonode was contacted by a large number of companies that expressed interest in purchasing the N1. In the commercial phase of the N1's release, Neonode received substantial pre-orders from network operators around the world.

11. During my time with Neonode, the company enjoyed substantial commercial success as a startup company. To the best of my recollection, Neonode sold 50,000 N1 and N2 phones. Also, to the best of my recollection, Neonode had in the order of 100,000 pre-orders from consumers and network operators for the phones that it was unable to fulfill.

Confidential Investment Memorandum

The interest from the market has been unexpectedly high. Since the brand release in December 2002 more than 100 companies that has expressed interest in the purchase of N1 have contacted Neonode. The interest has not decreased. Neonode has since the beginning of the commercial phase in June 2003 received offers from, e.g., the following telecommunication operators about orders of units of N1:

- Telcel in Mexico about purchase of 15,000 units
- Proximus in Belgium about purchase of 3,000 units
- TIM in Italy about purchase of 20-30,000 units
- Operator in Egypt about purchase of 500 units per month as test units.

In the beginning of July Neonode also was contacted by an English distributor that expressed the wish to purchase more than 100,000 units of N1. Mobile operators are however preferred customers since they are willing to make advance payments for adjustments of the mobiles.

DECLARATION OF PER BYSTEDT

6. I have reviewed Exhibit F. Neonode began commercial sales of the N1 mobile handset in early 2004, it released the N2 in 2007, and sales of the N1 and N2 ended after Neonode's mobile handset manufacturing entity filed for bankruptcy in 2008. The Excel spreadsheet documents sales of 26,991 units of the Neonode N2 phone. In addition, Neonode sold 8,000 units to a network operator in India, for a total of 34,991 units of the N2 phone. Furthermore, Neonode sold approximately 5,000 units of the N1 phone. So in all, Neonode's records presently available document approximately sales of approximately 40,000 N1 and N2 phones.

ORAL AND VIDEOCONFERENCE DEPOSITION

ULF MARTENSSON

detail in this, you can see that it's not only phones.
So when you look at the -- the -- the -- the -- the sum at the end that says that it's something like 2000 -- 26,000 or something like that of units that from this document of N2 phones. Let's see what it says. It says 26-991. That is the complete sell -- sale of the -- and when I looked more into this, it's the complete sale of -- of all components, not just the phones. So I want to make a correction in this, and the phone sold -- phones sold in this is 9,640.

Q. And so parsing through that. In Paragraph 6 of your declaration, you said the Excel spreadsheet document sales of 26,991 units of the Neonode N2 phone, right?

A. Yeah.

Q. And you're correcting that number to now be 9,640 units?

A. That's correct.

Industry Praise – For the Interface

DECLARATION OF PER BYSTEDT

3. In 2002, I became aware of an innovative mobile phone called the N1 developed by a company called Neonode. Neonode's N1 had become famous in Stockholm following its demonstration at the CeBit trade show in Germany in the Spring of 2002. I saw numerous articles about the N1 phone, its novel almost button-less design, and particularly its gesture-based touch screen user interface, on the Internet, in Swedish and international magazines, and in the business press such as *Dagens Industri* (The Swedish equivalent to *The Wall Street* Journal) and in the biggest Swedish newspapers. In the Stockholm tech and startup business community at that time, Neonode's N1 was the talk of the town.

8. In the mobile phone market, Neonode's N1 was famous. Sir Christopher Gent, the CEO of Vodaphone, and senior executives from Samsung Mobile, came to Stockholm to meet with Neonode. In fact, for a period of time I had weekly telephone calls with Samsung's management.

DECLARATION OF MARCUS BÄCKLUND

11. In my observation as CEO of Neonode, the excitement in the market about the N1 handset was due to its revolutionary swiping gesture user interface. This was the principal user-facing differentiator of the N1 from all other mobile handsets then on the market. This gesture-based user interface was far ahead of its time in one of the largest industries.

NeoNode N1

Can a unique interface put this compelling smart phone on the map?

Swipe, swipe, swipe

You see, instead of the usual menus and pulldowns, most operations are performed by sweeps of your finger - usually your thumb - across the surface of the NeoNode's display. For example, to answer the phone you sweep left to right. To terminate a call and hang up, you swipe right to left. To bring up programs or selections, you swipe up along the left side. To access options within an application you swipe up along the right side. To move between screens, or modes of operation, within an application, you swipe left or right along the top edge. If this sounds like the dreaded "gestures" that never really caught on in pen computing, it's not. The swipes are much simpler, there are only a few, and they are consistently used throughout all applications. The idea here is to let you hold a phone in the palm of your hand and operate it entirely with your thumb. No need to push buttons, view tiny menus, pull out a tiny stylus, or use scrollwheels, rockers or other such vexing miniature controls.

In any case, the NeoNode's swiping interface is similarly simple and brilliant.

EX2015, ¶¶3, 8; EX2016, ¶11; EX2027, p. 2; POR, pp. 64-65; Sur-Reply, pp. 25-26

Initial Skepticism About the Interface

DECLARATION OF MARCUS BÄCKLUND

12. Neonode's gesture-based user interface encountered skepticism from other established companies in the mobile handset industry. I personally met with representatives of Nokia, Samsung and Ericsson, and although they were impressed with the swiping-gesture user interface, they were skeptical that consumers would want a keyboard-less mobile handset. They told us that the touch screen might get greasy from users' fingers performing gestures, thereby obscuring the user interface. And they told us they thought that users were used to buttons to navigate mobile phones and would be hesitant to accept one without them.

CERTIFICATE OF SERVICE

It is certified that on March 14, 2022, the foregoing document has been served on Petitioners as provided in 37 C.F.R. § 42.6(e) via electronic mail at IPR50095-0015P1@fr.com.

Dated: March 14, 2022

Respectfully submitted,

/William Stevens/

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