

Apple Inc. (Petitioner)
v.
Masimo Corporation (Patent Owner)

Petitioner's Demonstratives

Case No. IPR2024-00290
U.S. Patent No. 8,190,223
Before Richard H. Marschall, David Cotta, and
Alyssa A. Finamore
Administrative Patent Judges

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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'223 Patent and Petition Overview

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Asserted Grounds

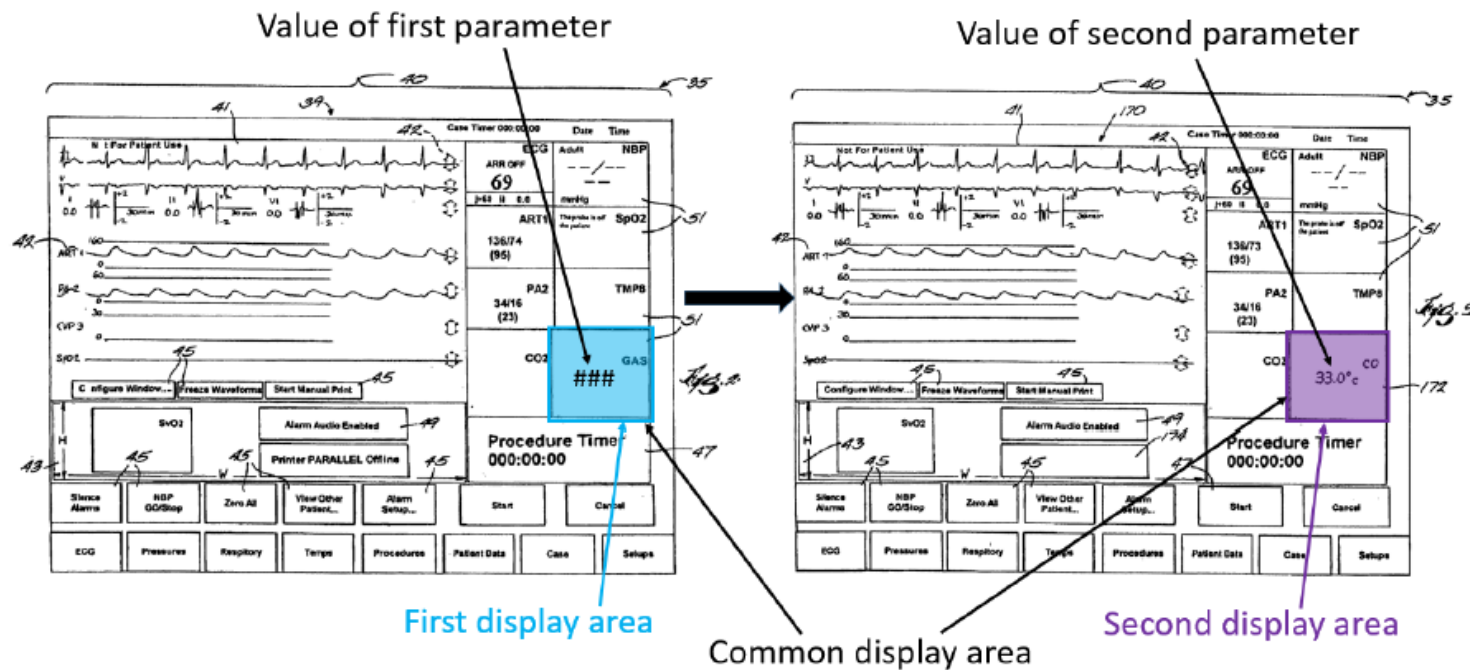
Ground	Claims	Basis for Rejection
1A	1-4, 6, 11-18, 20-22	§103: Naghavi-Hochstedler-Burnes
1B	19, 27-28, 32, 34, 36-37, 42-43	§103: Naghavi-Hochstedler-Burnes-Hayashi
1C	42-44	§103: Naghavi-Hochstedler-Burnes-Hayashi-Mortz

Petition, 1

The '223 Patent – Claim 1

1. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein *in the common display area [changes from displaying], the display of one of the measured values of the first or second physiological parameter [to displaying] is replaced with the other of the measured values based on an occurrence of an event, the event being the measured value of one of the first or second physiological parameters approaching one or more threshold values indicative of a worsening state of a patient.*

The Naghavi-Hochstedler-Burnes combination



Based on Hochstedler's FIGS. 2 and 9

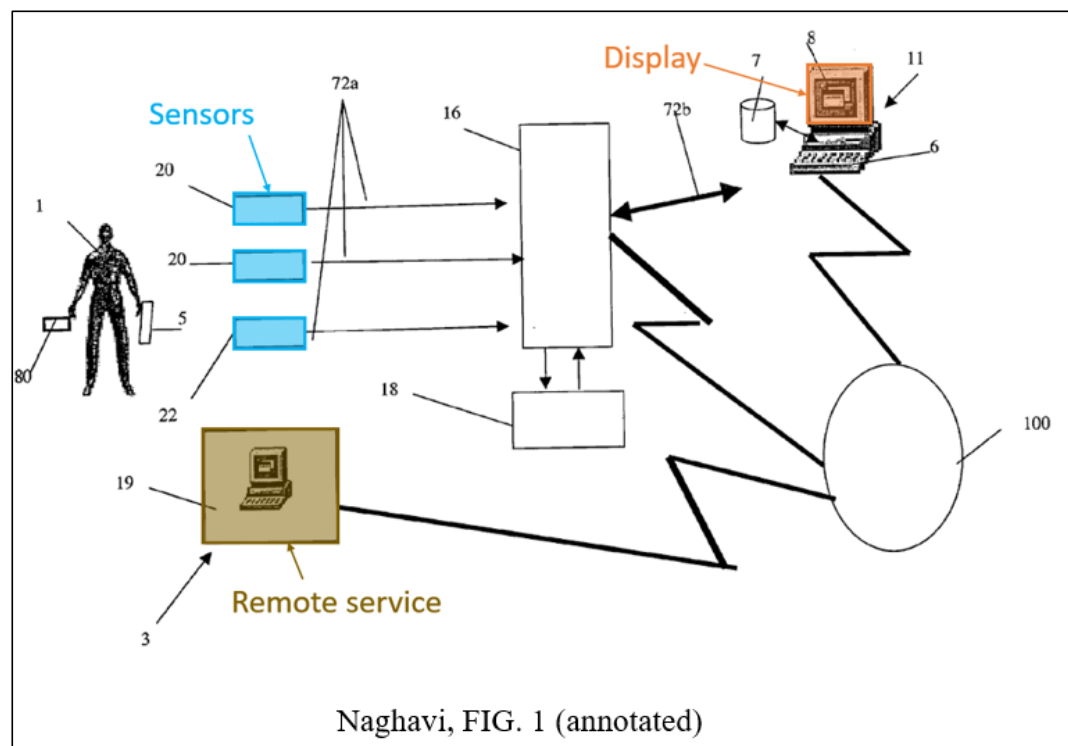
APPLE-1004, Figs. 2, 9; Pet., 23

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Naghavi-Hochstedler-Burnes combination

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Naghavi's healthcare management system



Naghavi

[0059] GUI 80 may further change and show different types of icons and health objects according to different diseases and/or other physical conditions of patient 1. The icons and health objects may change in color, shape, order, or other mutable attribute according to different time schedules and severity or degree of some of findings, e.g. the shape, size, color, and relative position of each icon can change according to a current health status and health plan of patient 1.

[0063] In a preferred embodiment, GUI 80 is interactive and dynamic, and may automatically detect changes in health status and health plan for patient 1 and automatically react and rearrange the available options to best suit the condition of patient 1.

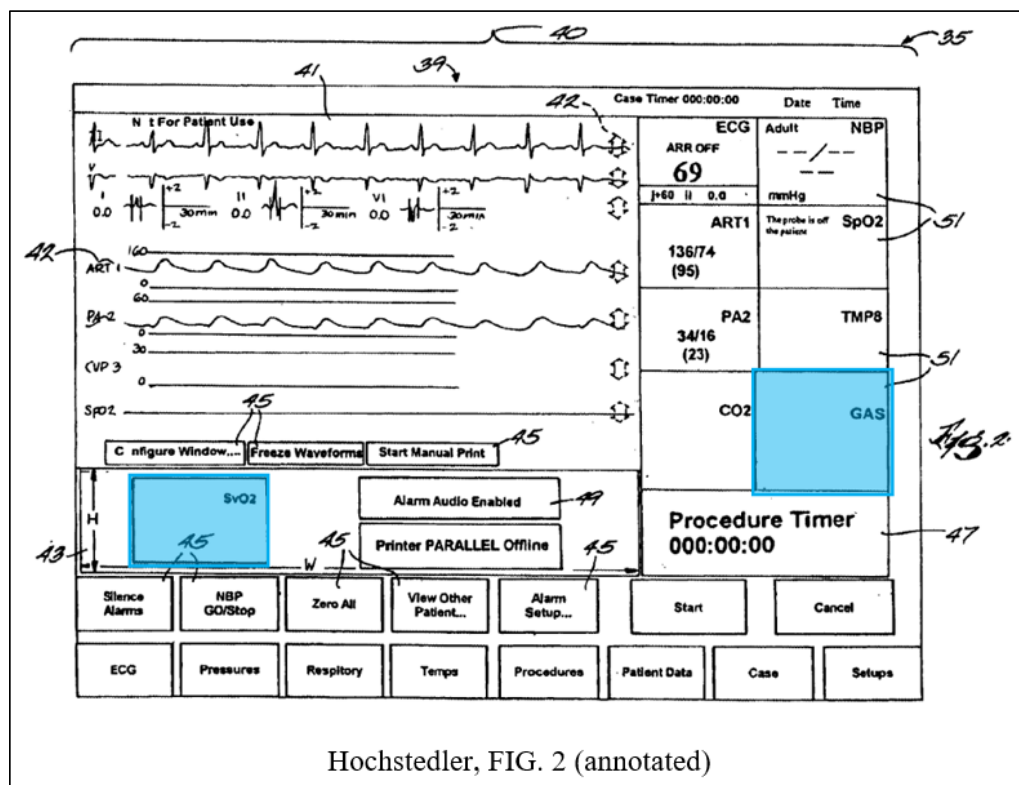
APPLE-1005, [0059], [0063]; Pet., 4-5

Hochstedler's user interface

Hochstedler

Generally, GUIs are made up of a set of components. A user-definable description of the set of components, the attributes of the components, and the arrangement of the components is referred to as a "layout." In patient monitoring applications, the components of a GUI often include parameter blocks, which display real-time information about patient vital signs and provide controls for adjusting the display of that information; waveform windows, which

It would be preferable, if the layout of the GUI changed with the needs of users and the stage of medical treatment. However, present information monitoring systems that use configuration arrangements of interface components lack this capability. The invention provides a method and an apparatus for automating the change of the layout of a GUI for an information monitoring system. The system determines the active or currently used components of the current layout and monitors the system to detect changes in the system's capabilities (e.g., an additional sensor is added) or changes in the system's environment (e.g., a switch is made from one medical procedure to another). After detecting one



Hochstedler, FIG. 2 (annotated)

APPLE-1004, 1:16-23, 1:49-66; Pet., 5-6

Burnes' categorization of parameters

Burnes

[0038] The categorizing of summary parameter values according to these exemplary categories is summarized by steps 228 through 236 shown in FIG. 6. At decision step 228, the monitored parameter values are compared to predefined thresholds or ranges to determine if any parameter values are "out of range." An "out of range" value is a value that has crossed a predetermined threshold or fallen outside a normally accepted range for the given parameter and is an indication that the patient may require clinical attention. An "out of range" value may be arrived at through a simple threshold crossing of the parameter, a crossing of an auto-

[0039] At decision step 232, the parameter values for any remaining parameters that are not categorized as "out of range" are compared to predefined thresholds or ranges to determine if any parameter values are near or approaching the "out of range" criteria. A "near out of range" value may be a value that has come within some predetermined range or percentage of a threshold defining the "out of range" boundary. Alternatively, uniquely defined thresholds or

[0043] Upon updating a summary display with current categorized parameter values or symbols, a clinician alert may be generated at step 242. Alarm or warning messages may be displayed based on summary parameter values. In addition, medical personnel may be alerted via a communication medium such as electronic mail, electronic page, fax, or telephone call. Thus, the central monitoring station is coupled to an appropriate communication network to allow alert or warning messages generated according to summary parameter values to be transferred to a network destination, telephone or pager number.

APPLE-1006, [0038]-[0039], [0043]; Pet. 8-9

The Naghavi-Hochstedler-Burnes combination

Petition

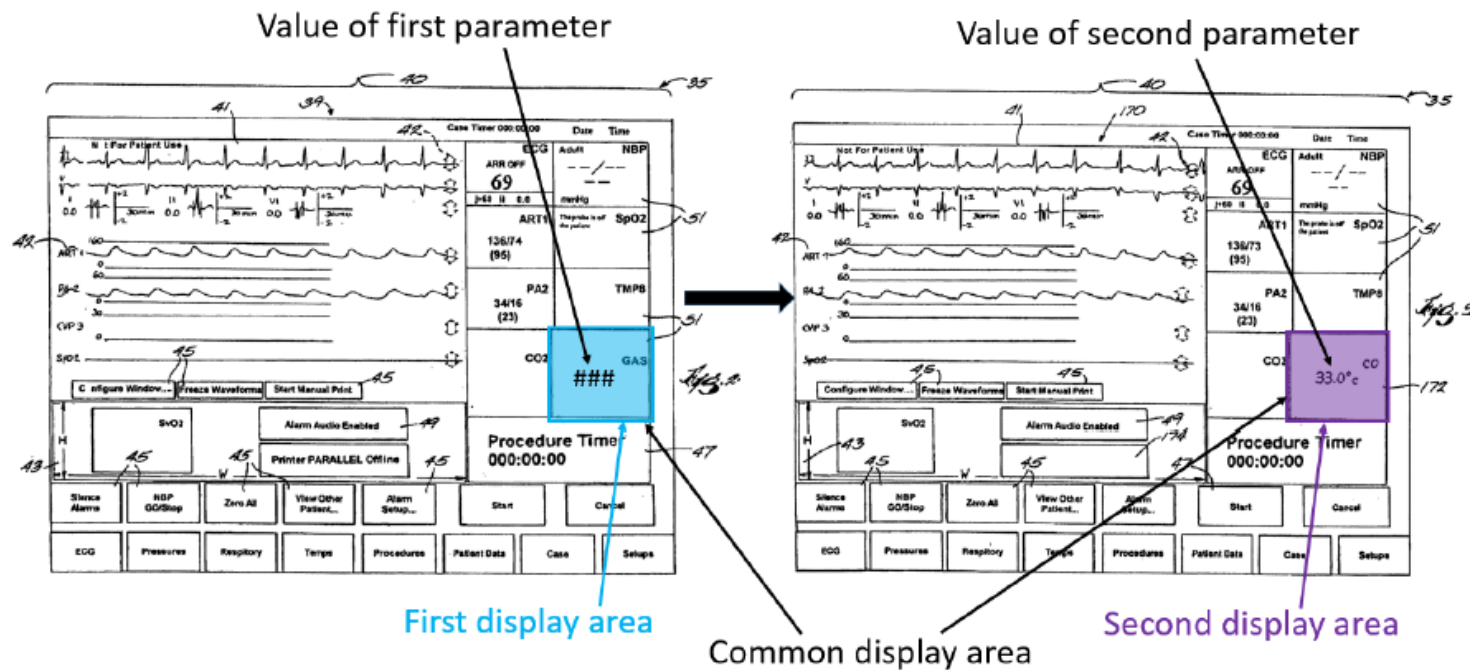
A POSITA² would have found it obvious to implement a Naghavi-Hochstedler-Burnes patient monitoring system that “acquire[s] data” from medical devices/sensors, blue *infra*, for monitoring physiological parameters of a patient. APPLE-1005, [0029]-[0030], [0032]; APPLE-1003, ¶34. Generally, as taught by each of Naghavi, Hochstedler, and Burnes, parameters monitored by sensors are displayed on a GUI, and changes are made automatically to the display responsive to changes in patient health status. See APPLE-1005, [0059], [0099]; APPLE-1003, ¶¶34-35. While these references do not limit the configuration of disclosed GUIs, Hochstedler offers examples of GUI configurations and changes consistent with those recited by the claims, and Burnes reinforces the obviousness of making such changes based on detected changes in patient condition, as contemplated by Naghavi. APPLE-1004, 1:54-60, 5:26-45; APPLE-1006, [0035]-[0040]; APPLE-1003, ¶¶34-38. For instance, the specific implementation of the GUI and its changes are based on Hochstedler, and examples of changes in parameters triggering this display change are based on Burnes. APPLE-1003, ¶¶34-38

More, based on Hochstedler, a POSITA would have found obvious not only the display of “real-time information about patient vital signs,” but the use of “icons and health objects” within blocks and/or sub-layouts of the GUI. APPLE-1005, [0056]-[0057]; APPLE-1004, 1:20-21; see APPLE-1004, 3:27-33, FIGS. 2, 8-13; APPLE-1003, ¶¶36-37. And, with each of Hochstedler, Naghavi and Burnes contemplating GUI updates in response to external input, it would have been obvious to replace displayed GUI icons/health objects based on “changes in health status,” based on, *e.g.*, Naghavi and Burnes, *e.g.*, to display different parameter blocks or sub-layouts (based on Hochstedler) when health changes are detected. See APPLE-1004, 1:54-60, 5:26-45; APPLE-1003, ¶¶35-38.

Pet., 9-12

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

The Naghavi-Hochstedler-Burnes combination



Based on Hochstedler's FIGS. 2 and 9

APPLE-1004, Figs. 2, 9; Pet., 23

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ISSUE 1A

Claim Construction: “Replace”

“The claims do not require removal of a replaced parameter from the display”

Pet. Reply, 7

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “replace”

Claim 1 (excerpt)

capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of one of the measured values* of the first or second physiological parameter [to displaying] *is replaced with* the other of the *measured values* based on an occurrence of an event, the event

Claim 27 (excerpt)

a user input button, the activation of which [causes] *replaces* the display [to change from displaying] of the measured value of the first blood parameter [to displaying] *with* the measured value of the second blood parameter, wherein the display [also changes from displaying] *of the measured value of the first blood parameter [to displaying] is replaced by* the measured value of the *second blood parameter* when the second blood parameter passes an alarm threshold,

Petitioner’s Reply

As discussed *supra*, the term “replace” does not require that the replaced parameter (*e.g.*, the first parameter) be removed from display entirely. Rather, display of a first parameter value being replaced with display of a second parameter value indicates only that *the second parameter value is displayed in the place previously occupied by the first parameter*, and imposes *no requirement on whether the first parameter is removed from display* (it can, but does not have to), or whether the first parameter instead is displayed elsewhere on the display. To be sure, replacement encompasses removal from the display entirely, but it is not so limited: it also encompasses instances where the parameter that is replaced is moved elsewhere on the display, outside of the common display area.

Pet. Reply, 7-8

Claim construction: “replace” – PO’s construction

Claim 1 (excerpt)

capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of one of the measured values* of the first or second physiological parameter [to displaying] *is replaced with* the other of the *measured values* based on an occurrence of an event, the event

Patent Owner’s Response

Accordingly, a POSITA would have understood that when a measured value of a first parameter is “replaced” by the measured value of a second parameter, *the measured value of the first parameter is removed from display and the measured value of the second parameter is displayed in its place*. EX2042, ¶79.

Institution Decision

would not seem to apply to this aspect of Petitioner’s argument. Second, Patent Owner assumes, without adequate argument or evidence, that the claims require replacing one parameter with another parameter that does not previously appear anywhere on the display. *See* Prelim. Resp. 30–31. The claim language appears to require only replacing the measured value of one parameter with another measured value in a “common display area.” On its face, *claim 1 imposes no restriction on whether or where those measured values may appear before and after the claimed replacement, so long as one of the measured values is “replaced.”* *See* Ex. 1001, claim 1. To the extent Patent Owner maintains this argument during trial, it should support it with a proper claim construction argument.

POR, 18; ID, 20-21

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “replace” – Claim language

Claim 1 (excerpt)

capable of displaying information, wherein *in the common display area* [changes from displaying], *the display of* one of the measured values of the first or second physiological parameter [to displaying] *is replaced with* the other of the measured values based on an occurrence of an event, the event

Petitioner’s Reply

First, PO’s construction is improper because *it renders other claim language meaningless*. See *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed.Cir.2004) (“interpretations that render some portion of the claim language superfluous are disfavored”); *Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed.Cir.2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.” (citations

Claim 1, for instance, specifies that the replacement occurs “in the common display area.” *The common display area does not necessarily occupy the entire area of the patient monitor display.*² PO’s construction of “replace,” which requires the replaced parameter to be “removed from display” (POR, 18), does not allow for the possibility that the common display area may be less than the entire display area, and thus its construction effectively gives no meaning to the limitation “in the common display area.” To be sure, replacement as recited in the claims encompasses removal from the display entirely, but it also encompasses instances where the replaced parameter is displayed elsewhere on the display (*e.g.*, outside of the common display area) following the replacement.

Claim construction: “replace” – ’223 Patent specification

Petitioner’s Reply

Second, PO’s construction unjustifiably attempts to import a limitation from an exemplary specification embodiment into broader claim language. See *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (“a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment”); *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003). While PO cites Figures 4 and 5 as “illustrat[ing] how a patient monitor display replaces one measured value ... with a second measured value” (POR, 12) these figures merely illustrate “an *exemplary display*,” i.e., a non-limiting example implementation that does not define the scope of the claims. APPLE-1001, 4:15-21.

Indeed, far from offering clear lexicography or disclaimer that might arguably justify importing an unrecited limitation into the claims, the ’223 specification discloses alternative examples in which replaced parameters are *not* fully removed. See, e.g., Figs. 11B-11C (illustrating other “exemplary display

A construction that excludes disclosed embodiments—such as PO’s advanced construction for “replace”—is inappropriate and should not be adopted. Indeed, “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction’.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (citation omitted).

Pet. Reply, 5-6

Claim construction: “replace” – ’223 Patent specification

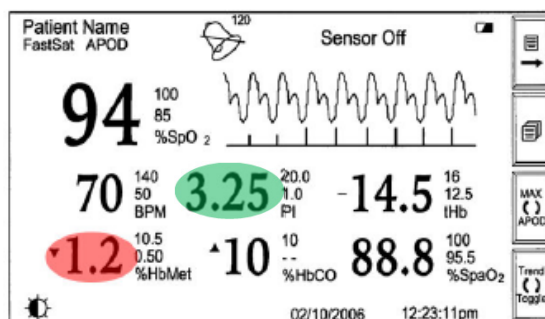


FIG. 11B

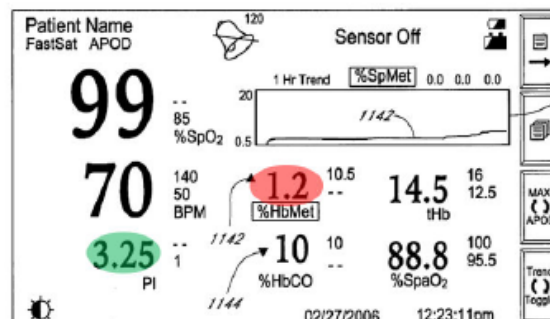


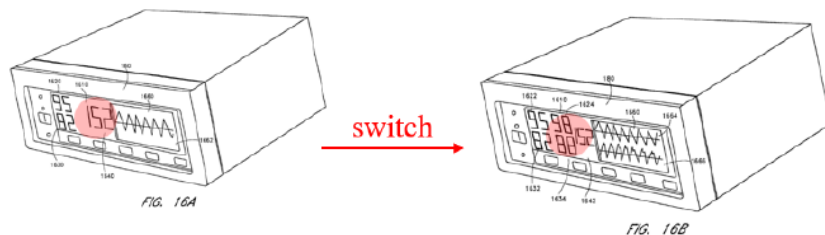
FIG. 11C

APPLE-1001, FIGS. 11B-11C; Pet. Reply, 6

Claim construction: “replace” – EPRx file history

Patent Owner's Response

Al-Ali's disclosure further evidences the difference between the “switching” disclosed in the prior art considered by the Examiner and “replacing” the measured values recited in the '223 Patent claims. EX2042, ¶77. Al-Ali discloses a device with “[a] push button, menu selection allows the user to manually switch between the single site display (FIG. 16A) and the multi-site display (FIG. 16B).” EX2038, ¶95; EX2042, ¶77. Annotated versions of Fig. 15A and Fig. 16B, reproduced below, illustrate how the device switches from displaying one parameter, to displaying additional parameters, thereby allowing a clinician to view the more of a patient's condition.



Petitioner's Reply

Third, PO's arguments that the *ex parte* reexamination file history supports its construction (*see* POR, 14) also do not withstand scrutiny. PO points to Al-Ali's Figs. 16A and 16B as purportedly illustrating “the difference between the ‘switching’ disclosed in the prior art considered by the Examiner and ‘replacing’ the measured values recited in the '223 Patent claims.” POR 16. Yet these figures, reproduced *infra*, do not support PO's contention that a replaced value must be fully removed from the display. While it is true that the “152” value remains displayed after the display “switch” (*id.*, 17) in these figures, it also still occupies some of the same area it previously occupied and thus was not fully replaced by the newly displayed “98/88” values.

POR, 16-17 (annotating EX2038, Figs. 16A, 16B); Pet. Reply, 7

Claim construction: “replace” – EPRx file history

Claim 1 (excerpt)

capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of* one of the measured values of the first or second physiological parameter [to displaying] *is replaced with* the other of the measured values based on an occurrence of an event, the event

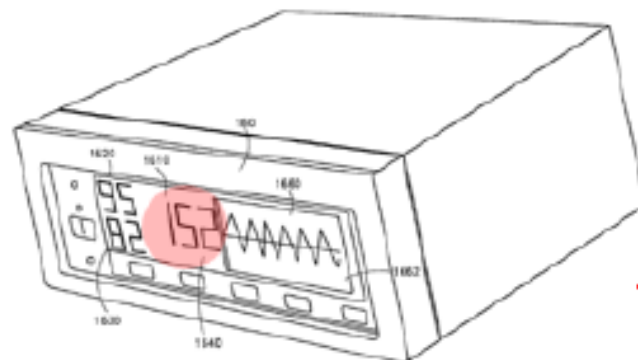


FIG. 16A

switch

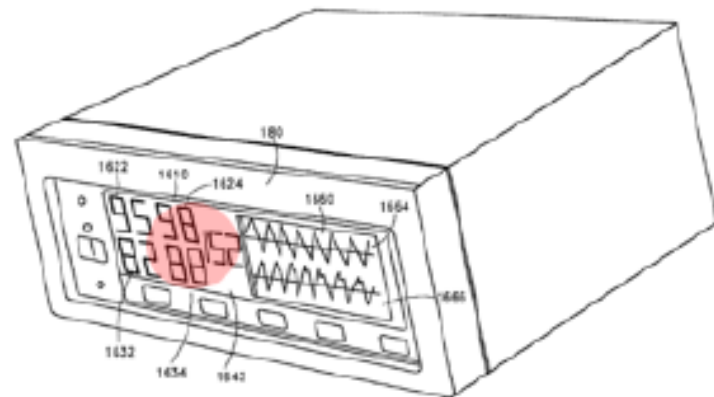


FIG. 16B

POR, 16-17 (annotating EX2038, Figs. 16A, 16B); Pet. Reply, 7

Claim construction: “replace” – EPRx file history

EPRx File History – Notice of Intent to Issue Reexamination Certificate

Claims 1-6, 8-12, 14-27, 29-44, all define over the art in that none of the art replaces the display of a first measured value with a second measured value when a change in the measurement of the second value indicates a worsening of the patient’s condition. Al-Ali does not replace the first value, but switches from displaying the first value to displaying first and second values. The request asserts that while Al-Ali does not replace the value, this is nothing more than trivial and obvious substitution of design elements. The examiner disagrees, noting that there is not sufficient evidence to support this position. The only support is a statement by the requester. Bald assertions are insufficient to establish obviousness. In addition, when an alarm condition is detected, Al-Ali switches from displaying one parameter to displaying all of the parameters to allow the user to better view the conditions that caused the alarm (see Al-Ali paragraph [0095]). As such, there would be no motivation to simply replace the first parameter with the second, as it would contradict the direct teaching in the reference of allowing the user to see the entirety of the patient’s condition. No other art of record teaches this feature. As such, claims 1-6, 8-12, 14-27, 29-44 define over the art of record.

Patent Owner’s Response

After Masimo amended Claims 1, 15, 18, and 27 to recite replacement of a measured value, the Examiner issued a Notice of Intent to Issue a Reexamination Certificate, reaffirming that a measured value is no longer displayed after it is replaced by another measured value. EX1020, 6; EX2042, ¶75. The Examiner explained that “Al-Ali does not replace the first value, but switches from displaying the first value to displaying the first and second values.” EX1020, 6-7. Thus, the Examiner again distinguished (a) replacing the first value with a second value from (b) switching the display from showing a first value to showing both a first and a second value simultaneously. EX2042, ¶75.

APPLE-1020, 6-7; POR, 16; Pet. Reply, 7

Claim construction: “replace” – PO’s construction

Claim 1 (excerpt)

capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of one of the measured values* of the first or second physiological parameter [to displaying] *is replaced with* the other of the *measured values* based on an occurrence of an event, the event

Patent Owner’s Response

Accordingly, a POSITA would have understood that when a measured value of a first parameter is “replaced” by the measured value of a second parameter, *the measured value of the first parameter is removed from display and the measured value of the second parameter is displayed in its place*. EX2042, ¶79.

Taking the limitations together, a POSITA would understand that the claims require displaying the measured value of the first parameter and then replacing the value with a second measured value of *a second parameter that the device is currently monitoring, but not displaying*. EX2042, ¶92. Accordingly, the claims require a device that is monitoring both a displayed parameter and an undisplayed parameter so that this switch could occur. *Id.*

POR, 18, 27-28

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “replace”

Petitioner’s Reply

This implicit addition to PO’s proposed claim construction should be rejected. PO has provided no explanation or evidence for why the claims should be read in this way. In fact, in advancing its reasoning purporting to demonstrate that “the claims require currently monitoring two parameters, one of which is not displayed,” PO instead presents unrelated analysis of the claims followed by a wholly unsupported conclusion. Specifically, PO first points out that the claims

Pet. Reply, 9

23

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “replace”

Patent Owner’s Response

As discussed, all claims require “measured value[s]” of a “first” and “second” physiological or blood parameter. *See* Sections III.A-B. Each “measured value” refers to a “value of a parameter currently detected and determined by the monitor.” *Supra* Section III.A. Additionally, because the claim recites a “first” and a “second” parameter, a POSITA would have understood that each claim requires **currently measuring at least two different parameters**. *Supra* Section III.B; EX2042, ¶90.

The claims also recite “replac[ing]” one measured value with the measured value of the other parameter, or otherwise “chang[ing]” from displaying one measured value to the other. *See* Limitations [1b], [13b], [15b], [18b], [21b], [27c], [28c]; EX2042, ¶91. As discussed, a POSITA would understand that when a measured value of a first parameter is “replace[d]” by the measured value of a second parameter, **the measured value of the first parameter is removed from display and the measured value of the second parameter is displayed in its place**. *Supra* Section III.C-D.

Taking the limitations together, a POSITA would understand that the claims require displaying the measured value of the first parameter and then replacing the value with a second measured value of **a second parameter that the device is currently monitoring, but not displaying**. EX2042, ¶92. Accordingly, the claims require a device that is monitoring both a displayed parameter and an undisplayed parameter so that this switch could occur. *Id.*

POR, 27-28

Claim construction: “change” – Claims 13 and 28

Claim 13 (excerpt)

mation, wherein the common display area changes from displaying one of the measured values of the first or second physiological parameter to displaying the other of the measured values based on an occurrence of an event, the event

Claim 28 (excerpt)

a user input button, the activation of which causes the display to change from displaying the measured value of the first blood parameter to displaying the measured value of the second blood parameter, wherein the display also changes from displaying the measured value of the first blood parameter to displaying the measured value of the second blood parameter when the second blood parameter passes an alarm threshold,

Patent Owner’s Response

In view of the claim language of Claims 13 and 28, a POSITA would have understood “changes” or “change” to have a similar meaning as the “replaced,” “replacing,” and “replaces” terms of Claims 1, 15, 18, 21, and 27. EX2042, ¶85.

POR, 19;

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ISSUE 1B

Claim Construction: “Measured Value”

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “measured value”

Claim 1

1. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein in the common display area [changes from displaying], *the display of* one of the measured values of the first or second physiological parameter [to displaying] *is replaced with* the other of the measured values based on an occurrence of an event, *the event being the measured value of one of the first or second physiological parameters approaching one or more threshold values indicative of a worsening state of a patient.*

Petitioner's Reply

Rather, claim 1 requires only that “the measured value of *one of the first or second physiological parameters*” approaches a threshold, and similar requirements are imposed by the other claims. Even assuming that PO is correct in arguing that “the monitors must be currently monitoring” a parameter to determine, *e.g.*, whether its value approaches a threshold, *this at most would imply that a single one of the two parameters must be currently monitored—not both.*

Pet. Reply, 13

27

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “measured value”

Claim 1 (excerpt)

physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area

Patent Owner’s Response

Based on this intrinsic evidence, a POSITA would understand that each “measured value” refers to a “value of a parameter currently detected and determined by the monitor.” EX2042, ¶60.

POR, 10

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “measured value”

Petitioner’s Reply

First, what it means to be “currently detected and determined” (POR, 10) is unspecified, rendering PO’s construction unclear. Must a parameter be continuously detected, and its value determined, in order to qualify as “currently detected and determined,” or is the periodic detection and determination of parameter values sufficient? If the latter, PO provides no guidance on what

frequency of monitoring falls within the realm of “current,” merely stating that a measured value is “based on data being currently collected by the monitor.” POR, 10. Is a once per hour data collection, or even a once per day collection, frequent enough for the resulting parameter value to be considered “currently detected and determined”? PO provides no guidance, and nor could Dr. Duckworth provide clarification. See APPLE-1025, 35:9-48:10.

Moreover, PO’s insistence that the parameter values be “currently detected and determined” fails to specify when, relative to the elements of the claims, the detection and determination must occur. Is a parameter value that was detected and determined while displayed, but not at the time of its replacement with display of another value, a “currently detected and determined” value? Or must the parameter value actively be “detected and determined” at the moment of the replacement? Once again, PO does not explain.

Neither the POR nor the ’223 Patent address these issues, leaving PO’s preferred construction of this term untenably ambiguous.

Pet. Reply, 11-12

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim construction: “measured value”

Patent Owner’s Response

The specification also confirms this interpretation. EX2042, ¶58. The specification describes a device that includes a “sensor” which “produces sufficient data for the determination of HbCO, HbMet, Hbt and SpO₂, SpO₂ only, SpO₂ and HbMet, any combination of the foregoing or other parameters, or the like.” EX1001, 9:55-59. Using this data, the device obtains and determines “the many parameters capable of being measured by the monitor 200.” EX1001, 10:6-9. Thus, the specification describes calculating the measured parameters from the data collected by the monitor. EX2042, ¶58.

The specification further explains that the device has a display for displaying these values as they are measured, including displaying: “measured pulse rate in beats per minute (“BPM”)” (*Id.*, 11:12-14), “measured HbCO values” (*Id.*, 11:32-33), “measured values of SpO₂ to HbCO” (*Id.*, 11:41-42), “one or more of the measured parameters” (*Id.*, 11:59-60), “measured values of perfusion over time” (*Id.*, 13:59), “measured values of SpO₂, HbCO, BPM, perfusion” (*Id.*, 15:22-23), “measured values of SpO₂” (*Id.*, 14:46), and “measured values of additional parameters, such as, HbCO” (*Id.*, 14:54-55).

POR, 9-10

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ISSUE 2

Naghavi-Hochstedler-Burnes
provides display of measured values
of parameters

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Display of measured values in a common display area

Naghavi

'223 Patent, claim 1 (excerpt)

1. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein in the common

[0059] GUI 80 may further change and show different types of icons and health objects according to different diseases and/or other physical conditions of patient 1. The icons and health objects may change in color, shape, order, or other mutable attribute according to different time schedules and severity or degree of some of findings, e.g. the shape, size, color, and relative position of each icon can change according to a current health status and health plan of patient 1.

Hochstedler

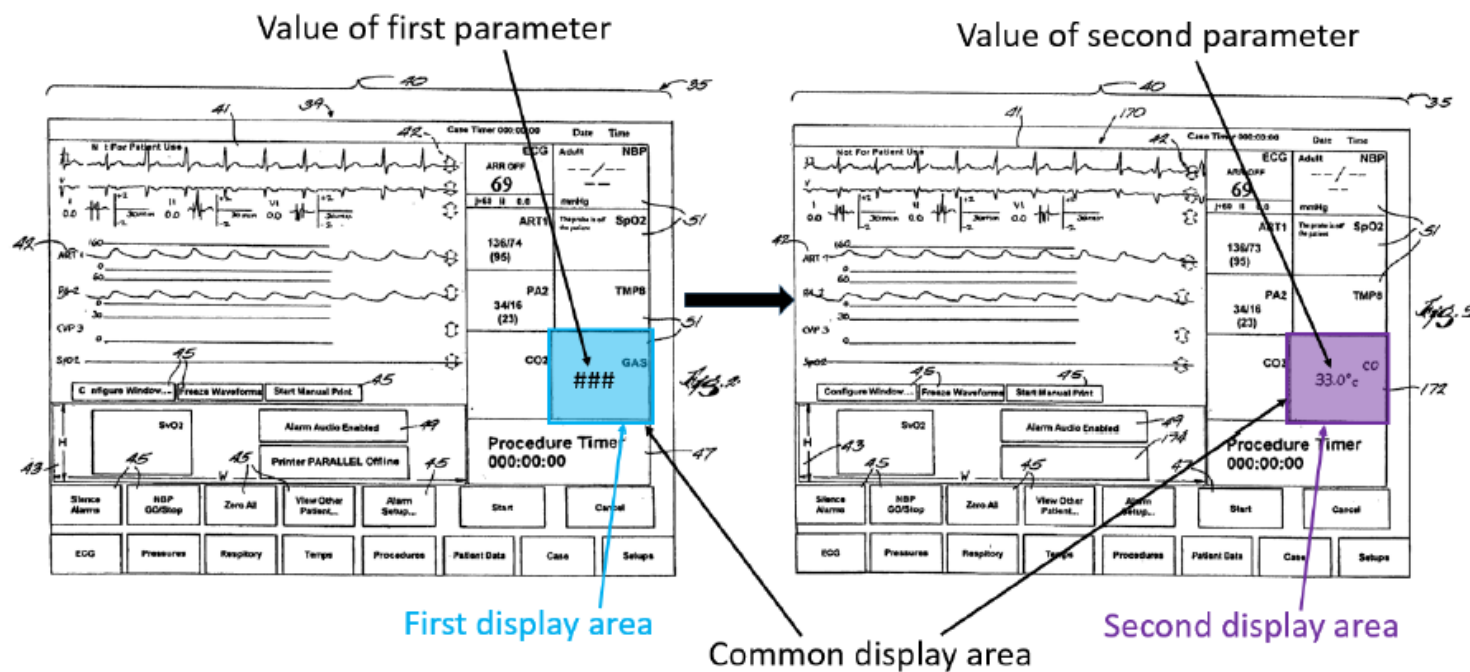
Generally, GUIs are made up of a set of components. A user-definable description of the set of components, the attributes of the components, and the arrangement of the components is referred to as a "layout." In patient monitoring applications, the components of a GUI often include parameter blocks, which display real-time information about patient vital signs and provide controls for adjusting the

APPLE-1004, 1:16-20; APPLE-1005, [0059]; Pet., 11; Pet. Reply, 20

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Display of measured values in a common display area



Based on Hochstedler's FIGS. 2 and 9

APPLE-1004, Figs. 2, 9; Pet., 23

Display of measured values

Petition

A POSITA would have understood, or at least found obvious, that the blocks and sub layouts can display information about parameters other than those specifically illustrated. APPLE-1003, ¶71. Hochstedler states that “[t]he number and type of sensors used in the system 10 changes based on the type of information that an end user desires to see,” and in this context, a POSITA would have expected corresponding flexibility in which parameters are displayed. APPLE-1004, 3:42-44; APPLE-1003, ¶71. Moreover, a POSITA also would have understood, or at least found obvious, that blocks and sub layouts can be displayed other than those highlighted *supra*, e.g., depending on the environment (e.g., on patient health status). See APPLE-1004, 1:49-66; APPLE-1003, ¶71.

Pet., 24-25

Display of measured values – “###”

Patent Owner's Response

Moreover, there is no disclosure in Hochstedler that the “GAS” shown in Figure 2 is a currently measured value of a parameter being monitored. There is no value being displayed in the GAS portion of the display. EX2042, ¶103. Apple annotated Figure 2 to add “###” but no such number is actually displayed in Figure 2. *Id.*; EX1004, Fig. 2. Apple’s added “###” improperly suggests that Hochstedler’s system replaces a currently measured value with another measured value, when no such disclosure exists. EX2042, ¶103. In contrast, other windows do display actual values such as ECG or ART1. *Id.* Thus, the more reasonable understanding of the blank “GAS” is that no value is being measured. *Id.*

Institution Decision

patient monitor would have little value to users. The fact that Hochstedler’s figures do not depict actual numerical values does not, standing alone, suggest that the Hochstedler’s display lacks the capability of displaying those values. We reach this conclusion even if we apply Petitioner’s

Petitioner's Reply

Pointing to this figure, PO argues that “there is no disclosure in Hochstedler that the “GAS” shown in Figure 2 is a currently measured value of a parameter being monitored,” both because of the Petition’s annotation of this figure “to add “###”” although “no such number is actually displayed,” and because of the nature of the GAS parameter itself. POR, 34. But this argument assumes the Petition’s reliance on only Hochstedler for the recited parameter display, ignoring that Hochstedler is merely one reference in the Naghavi-Hochstedler-Burnes combination. See *Bradium Tech. v. Iancu*, Case Nos. 2017-2579, 2017-2580 (Fed. Cir. 2019) (“A finding of obviousness, however, cannot be overcome by attacking references individually where the rejection is based upon the teachings of a combination of references.”)(quoting *In re Merck*, 800 F.2d 1091, 1097 (Fed. Cir.

POR, 34; ID, 23-24; Pet. Reply, 16

Display of measured values

Patent Owner's Response

The Board recognized that Apple “relies on Hochstedler for the specific GUI changes that show replacement of *one measured value of a parameter for another*, not Naghavi or Burnes.” Inst., 21 (emphasis added). Apple argued that Hochstedler shows a replacement based on comparing (a) Figures 2 and 9 and (b) Figures 2 and 13. Pet., 25-27. But Hochstedler does not replace one measured value of a parameter with another measured value of another parameter. EX2042, ¶94. Rather, Hochstedler switches its display to show a new parameter but does so by removing from display a parameter that is no longer measured at all. *Id.* Furthermore, while the Board found Apple’s argument sufficient to institute this review, it invited Masimo to provide a claim construction to further refute Apple’s argument. Inst.,

Petitioner's Reply

In the combination, Naghavi’s icons/health objects are arranged in a display layout as taught by Hochstedler. See Petition, 9-12. These icons/health objects are implemented as measured values of parameters monitored by the system, as illustrated by Hochstedler—i.e., values of *currently measured* parameters. See *id.*, 21-25. When the icons/health objects are rearranged, e.g., into another layout as illustrated by Hochstedler, this places one icon/health object (e.g., the value of one monitored parameter) into a location previously occupied by another (e.g., the value of another monitored parameter), thus in fact “using the same display area to show two currently measured parameters,” despite PO’s insistence otherwise. POR, 41.

POR, 28; Pet. Reply, 17

Display of measured values

Petitioner's Reply

It is common sense that for a change in a parameter value to trigger a display change (as is the case in the Naghavi-Hochstedler-Burnes combination), the system must be actively monitoring that parameter. See Petition, 9-13; APPLE-1003, ¶¶72-74; APPLE-1022, ¶¶6-9. That is, without a doubt, at least the replacing parameter (*e.g.*, the second parameter) is actively monitored in the combination system. APPLE-1022, ¶¶6-9. This monitoring of the replacing (*e.g.*, second) parameter is sufficient to satisfy any active monitoring demand imposed by the claims, which at most impose an active monitoring requirement on only one of the parameters. See §III.A, *supra*.

APPLE-1022, ¶¶8-9; Pet. Reply, 18-19

Dr. Cockburn's Second Declaration

8. It is common sense that in order for a change in a parameter value to be a trigger for some action (here, a trigger for a change in the display layout), that parameter must be actively monitored. If the triggering parameter were not being monitored, the system would have no way of knowing about a change in the value of that parameter. For instance, suppose the parameter is an oxygen saturation value measured by an oxygen sensor. If the oxygen sensor is unplugged or turned off, the system cannot know if the patient's oxygen saturation has changed, and surely cannot know whether their oxygen saturation is out of range or approaching out of range.

9. In the specific context of the Naghavi-Hochstedler-Burnes combination, where a change in one parameter value causes that parameter value to be displayed in place of another parameter value (see my First Declaration, ¶¶75-82), this means that the replacing parameter must be actively monitored by the combination system.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Display of measured values

Petitioner's Reply

Nevertheless, the combination also encompasses active monitoring of both the replaced parameter and the replacing parameter. Consistent with the Board's proper understanding (*see* Institution Decision, 18), the displayed values reflect "real-time information about patient vital signs" (APPLE-1004, 1:20-21; *see* Petition, 11) obtained from sensors employed by the combination system (*see* Petition, 20), and thus constitute values of actively monitored parameters. One such parameter value is initially displayed in a block of one of Hochstedler's layouts; and when the objects are rearranged (as indicated by Naghavi), a value of a different parameter, also monitored by the system, is displayed in that same block—thus displaying values of two actively monitored parameters in the same display area. *See* Petition, 25-27.

Hochstedler

Generally, GUIs are made up of a set of components. A user-definable description of the set of components, the attributes of the components, and the arrangement of the components is referred to as a "layout." In patient monitoring applications, the components of a GUI often include 20 parameter blocks, which display real-time information about patient vital signs and provide controls for adjusting the

APPLE-1004, 1:16-22; Pet. Reply, 19

ISSUE 3

Naghavi-Hochstedler-Burnes
replaces display of one measured
value with another

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement of display of one measured value with another

'223 Patent, claim 1 (excerpt)

capable of displaying information, wherein *in the common display area [changes from displaying], the display of one of the measured values of the first or second physiological parameter [to displaying] is replaced with the other of the measured values based on an occurrence of an event, the event being the measured value of one of the first or second physiological parameters approaching one or more threshold values indicative of a worsening state of a patient.*

Pet. Reply, 20-21

Petitioner's Reply

Specifically, Naghavi provides that the icons/health objects are “rearrange[d] ... to best suit the condition of [the] patient,” *e.g.*, to “show different types of icons and health objects according to different ... physical conditions of the patient.” APPLE-1005, [0059], [0063]; *see* Petition, 18, 27. A rearrangement of displayed icons/health objects involves moving displayed objects around such that one object is displayed in the place previously occupied by another—*i.e.*, **replacement of one health object with another**. *See* Petition, 25-27. Yet tellingly, PO does not engage

...

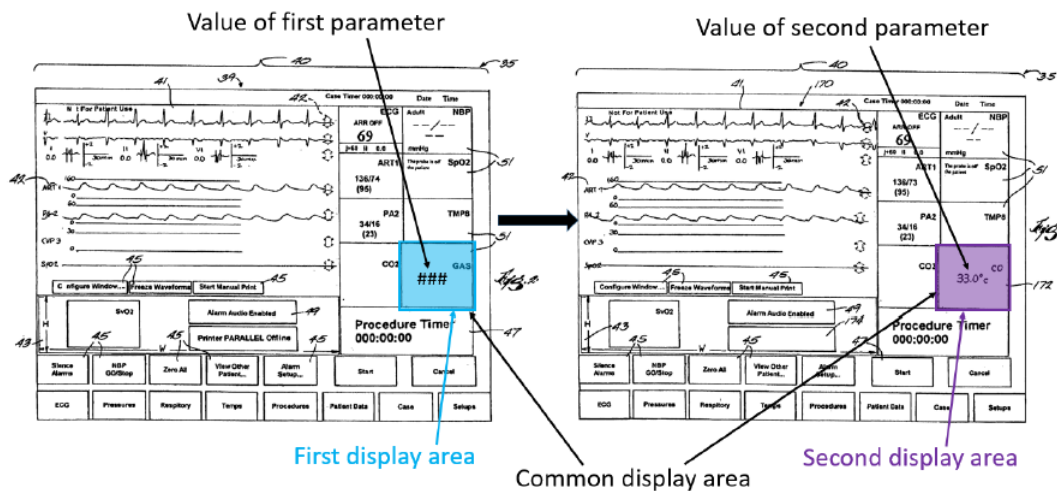
The Petition acknowledges that Naghavi provides little detail about its GUI, or about the rearrangement of its icons/health objects, and turns to Hochstedler for a specific implementation. *See* Petition, 9-12. Consistent with Naghavi's rearrangement of icons/health objects, **Hochstedler describes rearranging display layouts of parameter values**, and specifically illustrates rearrangements in which one parameter value is displayed in the place previously occupied by another—that is, **replacement of one displayed value with another**. *See id.*, 25-27. Yet here,

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement of display of one measured value with another

Petitioner's Reply



Based on Hochstedler's FIGS. 2 and 9

PO's objections to the teachings of the references focus on the purported failure of the references to disclose that the first parameter value is removed from display after the replacement (*see, e.g.*, POR, 2-3) or that the second parameter value is not displayed prior to the replacement (*see, e.g., id.*, 3). These alleged distinctions (even if true, which Petitioner does not concede; *see* §VI, *infra*) are not relevant when the claims are read properly. The combination demonstrates exactly what the claims require: replacement of one parameter value with another in a specific portion of the display—*e.g.*, the “common display area” of claims 1, 13, 15, and 18 or the “display location” in claim 21.

APPLE-1004, Figs. 2, 9; Pet., 23; Pet. Reply, 19-20

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement of display of one measured value with another

Petition

First, the display layout is switched (display of one parameter value is replaced with another) responsive to “changes in health status” of the patient. APPLE-1005, [0063]; *see id.*, [0059] (“GUI 80 may further change and show different types of icons and health objects according to different diseases and/or physical conditions of the patient”), [0063] (“GUI 80 ... [may] automatically react and rearrange the available options to best suit the condition of patient 1”), claim 1; APPLE-1004, 5:31-37 (“A second type of change ... relates to a change in the system environment (such as ... change in the phase of the case ... change in the type of medical procedure being carried out, or other similar change”); APPLE-

The “changes in health status” triggering the display change relate to “severity” of a monitored parameter. APPLE-1005, [0059]; *see id.* (“The icons and health objects may change in color, shape, order, or other mutable attribute according to ... severity or degree of some findings”); APPLE-1003, ¶77. Specifically, the layout change occurs when a parameter’s severity changes, *e.g.*, to become out of range or near out of range. APPLE-1006, [0038]-[0039]; *see id.* [0038] (“any parameter values found to be ‘out of range’ are formatted for display as an ‘alert symbol,’ and “[c]ategorizing a parameter value in the ‘alert’ category may trigger an alarm”), [0039] (“any parameter values found to be ‘near out of range’ are assigned a ‘warning’ symbol to be displayed as the parameter value”), [0043]; APPLE-1003, ¶77. This change in severity is **the occurrence of an event** causing display of one parameter value to be replaced with display of another—specifically, with display of the parameter whose value has become (near) out of range. APPLE-1003, ¶77.

Replacement of display of one measured value with another

Patent Owner's Response

Hochstedler simply does not disclose a device that displays two measured values in the same display area. EX2042, ¶109. Indeed, Hochstedler discusses a GUI for a patient monitor that uses a “CRT display, flat panel display, or similar device.” EX1004, 1:8-10; EX2042, ¶109. These sorts of displays have large screens with ample screen real estate to display all measured parameters, not pick and choose between them. EX2042, ¶109. This differs significantly from the problem that the inventors of the '223 Patent faced, which was how to display parameters in a display area too small to show all measured parameters simultaneously. *Id.*

Moreover, as explained, each of the references are about devices with large screens with ample screen real estate. *See supra* Sections IX.B.1-3; EX2042, ¶¶93-117. Such screens can display all measured parameters, not pick and choose between them. *See supra* Sections IX.B.1-3; EX2042, ¶¶93-117. These references do not suggest a solution to the problem that the inventors of the '223 Patent faced—how to display parameters on a display with limited display real estate. EX2042, ¶118.

POR, 37, 41-42

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement – PO's construction

VI. EVEN UNDER PO'S CONSTRUCTIONS, THE CLAIMS ARE UNPATENTABLE

PO relies on both its explicit claim construction (that **the first parameter value “is *removed from display*”** (POR, 18)) and its implicit further claim interpretation (that **“the device is *currently monitoring, but not displaying*” the **second parameter value** (POR, 27-28)) in arguing that the claims are not obvious. These interpretations are not justified for many reasons, as discussed above. But even if all of PO's constructions—both explicit and implicit—are adopted, the art still renders the claims obvious. APPLE-1022, ¶¶10-18.**

Replacement – PO's construction

Naghavi

[0059] GUI 80 may further change and show different types of icons and health objects according to different diseases and/or other physical conditions of patient 1. The icons and health objects may change in color, shape, order, or other mutable attribute according to different time schedules and severity or degree of some of findings, e.g. the shape, size, color, and relative position of each icon can change according to a current health status and health plan of patient 1.

Dr. Cockburn's Second Declaration

12. Changing a display to show “different types of icons and health objects” (APPLE-1005 (Naghavi), [0059]) entails (1) changing the display to show a different type of icon/health object that was not previously displayed, and/or (2) changing the display to remove a type of icon health object from display. For instance, a type of icon/health object that was not previously relevant may become relevant when a change in the “physical conditions” (*id.*) of the patient occurs, and the display can then change accordingly to show this newly relevant type of icon/health object—that is, the display changes to show an icon/health object that was not previously displayed. Similarly, a type of icon/health object may become no longer relevant (or at least, less relevant) when the patient's physical condition changes, and again, the display can change accordingly to remove the icon/health object—that is, an icon/health object is removed from display.

APPLE-1005, [0059]; APPLE-1022, ¶12; Pet. Reply, 25-26

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement – PO's construction

Hochstedler

Generally, GUIs are made up of a set of components. A user-definable description of the set of components, the attributes of the components, and the arrangement of the components is referred to as a “layout.” In patient monitoring applications, the components of a GUI often include parameter blocks, which display real-time information about patient vital signs and provide controls for adjusting the

Dr. Cockburn's Second Declaration

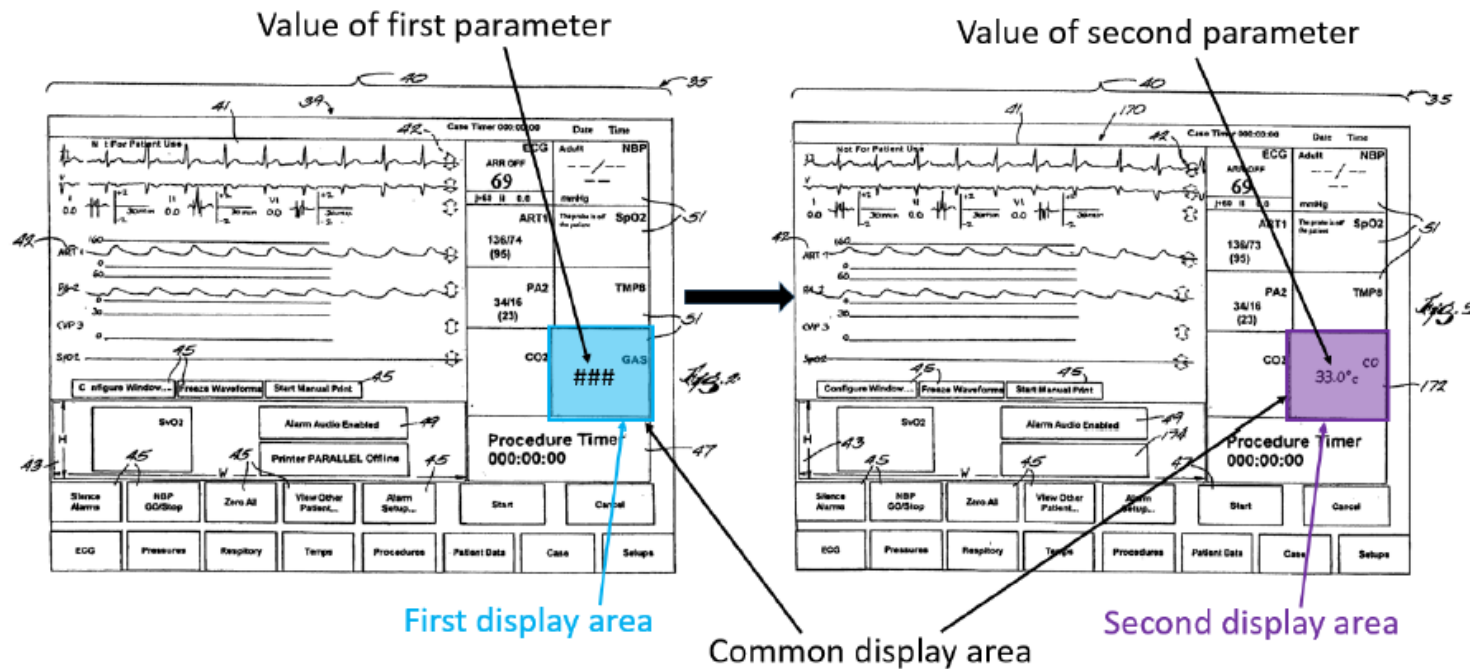
14. One example of this is depicted by the change between the layout illustrated in Hochstedler's FIG. 2 and that illustrated in Hochstedler's FIG. 9, which I annotated in my First Declaration (*see* APPLE-1003, ¶73) and reproduced again here. In this example, the value of the first parameter—one type of icon/health object—is removed from the display, and the value of the second parameter—a different type of icon/health object—is newly displayed. This occurs based on the “physical condition” (APPLE-1005 (Naghavi), [0059]) of the patient—that is, based on the patient's physical condition as indicated by the second parameter value changing to be out of range or near out of range, such that the first parameter has become less relevant and the second parameter has become more relevant. A similar example is depicted by the change between the layout

APPLE-1005, [0059]; APPLE-1022, ¶12; Pet. Reply, 25-26

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Replacement of display of one measured value with another



Based on Hochstedler's FIGS. 2 and 9

APPLE-1004, Figs. 2, 9; APPLE-1022, ¶¶14; Pet., 23; Pet. Reply, 26

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ISSUE 4

Motivation for the combination

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivation for the combination

Petition

A POSITA would have been motivated to display icons/health objects in layouts, *e.g.*, according to Hochstedler. APPLE-1003, ¶¶41-46.

First, automatic replacement of a layout advantageously allows “the layout of the GUI [to] change[] with the needs of users and the stage of medical treatment,” thus helping ensure display of clinically relevant information. APPLE-1004, 1:49-50; APPLE-1003, ¶¶42-43. This dynamic change is consistent with Naghavi’s approach to changing a GUI responsive to patient health status. *See* APPLE-1005, [0059], [0099]; *see* claim 1. Moreover, concurrent display of

Second, automatic layout replacement provides prioritized display of important information rather than other, less relevant information. *See* APPLE-1004, 1:49-50; APPLE-1005, [0063]; APPLE-1003, ¶44.

Third, this implementation is merely the application of known techniques (multiparameter display) by a known system (a medical monitoring system) to yield predictable results (multiparameter display in a medical monitoring system). APPLE-1003, ¶45; *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

Pet., 13-14

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivation for the combination

Petition

A POSITA would have been motivated to switch the layout responsive to a parameter value changing to become (near or) out of range, *e.g.*, based on Burnes. APPLE-1003, ¶¶47-52.

First, as recognized by Naghavi and Burnes, this implementation would provide a display that “best suit[s] the condition of [the] patient.” APPLE-1005, [0063]; APPLE-1003, ¶¶48-49. A change in the severity of parameter can indicate a health status change that may require close monitoring, and automatic layout switching would enable caregiver monitoring of changing parameters even if they are not displayed on a main screen. APPLE-1003, ¶¶48-49.

Pet., 14-15

Second, this implementation would “relieve the data analysis burden placed on the clinician while enabling the clinician to maintain thorough patient care.”

APPLE-1006, [0004]; APPLE-1003, ¶50. A POSITA would have recognized that not all parameters must be displayed on a main layout, nor should they crowd a single layout, so long as those parameters that change in severity can be displayed/highlighted to the clinician to enable proper attention and care to be timely provided to the patient. *See* APPLE-1006, [0004]; APPLE-1003, ¶50. By displaying certain parameters only when necessary, the amount of displayed information is maintained at a manageable level while still providing a mechanism to inform the clinician about relevant parameters. APPLE-1006, [0004]; APPLE-

Third, this implementation is merely the application of known techniques (changing a parameter display responsive to a change in parameter status) by a known system (a multiparameter monitoring and display system) to yield predictable results (a multiparameter monitoring and display system in which the parameter display changes responsive to a parameter change). APPLE-1003, ¶51; *see KSR*, 550 U.S. at 417.

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivation for the combination

Petitioner's Reply

Notably, PO here once again fails to contend with the demonstration of obviousness over the applied prior art combination, and instead improperly attacks the references individually. For example, PO argues that “Hochstedler continues to show other blocks without any measured values being displayed.” POR, 47. But, as explained in the Petition and *supra*, the specific contents (or lack thereof) of the blocks in Hochstedler's layouts are not at issue in the combination. See Petition, 24-25. What is contemplated in the combination, and motivated by a POSITA's desire for a user-friendly and easily understandable user interface, is the display of values of parameters monitored by sensors of the combination system, in layouts such as Hochstedler's. See *id.*, 9-14.

Pet. Reply, 24

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivation for the combination

Patent Owner's Response

VI.B.1-4. Allowing the GUI to “change[] with the needs of users and the stage of medical treatment” and “ensure display of clinically relevant information,” does not provide a reason to continue monitoring a parameter that is no longer displayed. Pet., 13; EX2042, ¶128. Indeed, ensuring the display of clinically relevant information would caution against not displaying a monitored parameter because the system could simply display all currently measured clinically relevant parameters. EX2042, ¶128. Thus, Apple’s first reason does not provide any reason to arrive at the claimed invention.

Petitioner's Reply

46. PO is incorrect. This argument distorts the scope of the claims: “not displaying a monitored parameter” (*id.*) is not a limitation of the claims, and thus even if this motivation does caution against displaying fewer than all monitored parameters (it does not), such concern is irrelevant. In fact, the rearrangement of parameters, as already suggested by Naghavi and implemented according to Hochstedler, advantageously ensures an easy-to-use user interface, *e.g.*, by highlighting information that has changed to warrant user attention. See Petition, 13-14; APPLE-1003, ¶¶42-43. To the extent that these changes do involve removing a monitored parameter from display, this is nevertheless consistent with this proffered motivation, *e.g.*, in that not displaying parameters that are monitored but may not be of particular importance to current patient care can help avoid presentation of an overwhelming amount of information on a single interface.

POR, 45; Pet. Reply, 23

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Motivation for the combination

Patent Owner's Response

Apple's second argument—that automatic replacement would provide “prioritized display of important information rather than other, less relevant information”—is also unsupported by any reference. EX2042, ¶129. Apple and its expert cited Hochstedler at 1:49-50 and Naghavi at [0063], but neither reference teaches that any parameters are “less relevant” such that they can be removed from display, as the claims require. Pet., 14; EX1003, ¶44; EX2042, ¶129. Prioritizing display of important information might suggest a reason to show a parameter. However, similar to Apple's first argument, prioritizing display does not provide a reason to replace, and thereby remove, a second monitored parameter from display. EX2042, ¶129. Indeed, Hochstedler continues to show other blocks without any measured values being displayed. *Id.*; see EX1004, Fig. 2. Thus, Hochstedler shows

Petitioner's Reply

Second, PO argues that “prioritizing display”—the second reason presented in the Petition—“does not provide a reason to replace, and thereby remove, a second monitored parameter from display.” POR, 46. Again, PO's argument is not true to the scope of the claims: removing a monitored parameter from display is not required by the claims. And again, as contemplated by Naghavi and implemented based on Hochstedler, rearrangement of parameter values advantageously allows for key information to be made more prominent on a display, *e.g.*, in position, size, color, etc. See Petition, 13-14; APPLE-1003, ¶44; APPLE-1005, [0059] (“The icons and health objects may change in color, shape, order, or other mutable attribute”). Moreover, again to the extent that removal of a parameter from display is one such change, the prioritization of information still motivates this implementation, *e.g.*, in that removing a parameter that is not clinically relevant, or that indicates a stable patient condition, can focus the user's attention on other, more immediately applicable, parameters.

POR, 46; Pet. Reply, 23-24

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ISSUE 5

Claim 4

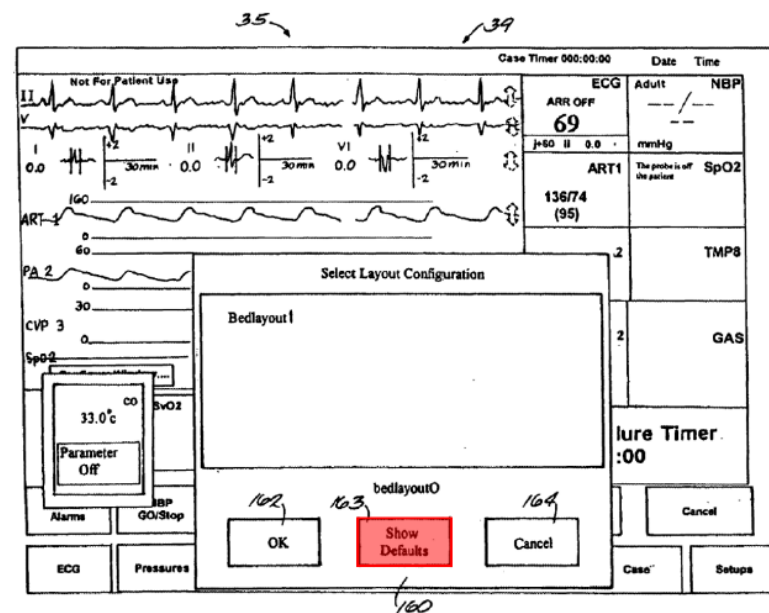
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Claim 4

4. The patient monitor of claim 1, wherein the common display area is configured to **default** to displaying one of the measured values of the first or second physiological parameters.

Petition

In the combination, a dialog box for layout selection (FIG. 8, *infra*) includes “a default selection button” (red). APPLE-1004, 8:30-38. In this context, a POSITA would have understood, or at least found to be obvious, that **the GUI has a default layout**. See *id.*, 8:36-38; APPLE-1003, ¶86. When the layout displaying the measured value of the first or second parameter is the default, **the common display area is configured to default to displaying the measured value of the first or second parameter, respectively**. See [1a]; APPLE-1003, ¶87.



Hochstedler, FIG. 8 (annotated)

APPLE-1004, FIG. 8; Pet., 32-33

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Claim 4

Petitioner's Reply

PO argues that “Hochstedler selects layouts to match the system, rather than using a default layout,” and therefore “does not describe a default *layout*.” POR, 58-59. This argument is deficient because PO improperly attacks Hochstedler individually, failing to address that the *combination* provides a GUI with a default layout. APPLE-1004, 8:36-38; APPLE-1003, ¶86; *Bradium Tech. v. Iancu*, Case Nos. 2017-2579, 2017-2580 (Fed. Cir. 2019). Consistent with arguments provided above, Hochstedler’s GUI provides an example of a default layout: a dialog box with a “default selection button” (APPLE-1004, 8:38), but the combination is not solely limited to this embodiment.

But even assuming *arguendo* that the combination were so limited (it is not), a default layout does not exclude recommended layouts created by Hochstedler’s “weighted algorithm,” as PO suggests it does. POR, 59. To the contrary, a POSITA would have understood a default layout to be inclusive of “a selection automatically used by a program in the absence of a choice made by the user.” APPLE-1024, 3; *see* APPLE-1023, 3; APPLE-1022, ¶¶19-22. That is, a recommended layout automatically created and selected by a system is yet another example of a default layout. APPLE-1022, ¶¶19-22.

Appendix

Challenged Independent Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Challenged Independent Claims

1. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein *in* the common display area **[changes from displaying]**, *the display of* one of the measured values of the first or second physiological parameter **[to displaying]** *is replaced with* the other of the measured values based on an occurrence of an event, the event being the measured value of one of the first or second physiological parameters approaching one or more threshold values indicative of a worsening state of a patient.

13. **[The patient monitor of claim 11]** *A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein the common display area changes from displaying one of the measured values of the first or second physiological parameter to displaying the other of the measured values based on an occurrence of an event, the event being the measured value of one of the first or second physiological parameters approaching one or more threshold values indicative of a worsening state of a patient, wherein an aspect of the display changes to illustrate a change in the severity of one of the measured values of the first or second physiological parameters, wherein the aspect that changes comprises a display size.*

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Challenged Independent Claims

15. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of* one of the measured values of the first or second physiological parameters [to displaying] *is replaced with* the other of the measured values of the first or second physiological parameters based on an occurrence of an event, the event being one of the measured values of the first or second physiological parameters alarming.

18. A patient monitor capable of measuring at least two physiological parameters, the patient monitor comprising a display capable of displaying a measured value of a first physiological parameter of body tissue of a monitored patient in a first display area or displaying a measured value of a second physiological parameter of the body tissue in a second display area where the first display area and the second display area comprise at least some common display area capable of displaying information, wherein *in* the common display area [changes from displaying], *the display of* one of the measured values of the first or second physiological parameters [to displaying] *is replaced with* the other of the measured values of the first or second physiological parameters automatically based on which is a more critical one of the measured values of the first or second physiological parameters.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Challenged Independent Claims

21. A method of displaying two physiological parameter measurements using a display location of a display of a patient monitoring device, the display location being generally capable of displaying a single physiological parameter measurement, the method comprising:

- displaying a measured value of a first physiological parameter in a display location of an electronic display; and
- replacing the display of the measured value of the first physiological parameter with a display of a measured value of a second physiological parameter in the display location when a change in the measurement of the second physiological parameter indicates a worsening state of the patient.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

Challenged Independent Claims

27. A patient monitor capable of determining a plurality of physiological parameters from an output signal of a light sensitive detector capable of detecting light attenuated by body tissue, the patient monitor comprising:

a display capable of displaying a measured value of a first blood parameter of body tissue of a monitored patient or displaying a measured value of a second blood parameter of the body tissue; and

a user input button, the activation of which [causes] *replaces* the display [to change from displaying] *of* the measured value of the first blood parameter [to displaying] *with* the measured value of the second blood parameter, wherein the display [also changes from displaying] *of* the measured value of the first blood parameter [to displaying] *is replaced by* the measured value of the second blood parameter when the second blood parameter passes an alarm threshold,

wherein the measured values of the first and second blood parameters are determined using an output signal of a noninvasive light sensitive detector capable of detecting light attenuated by the body tissue.

28. [The patient monitor of claim 27] *A patient monitor capable of determining a plurality of physiological parameters from an output signal of a light sensitive detector capable of detecting light attenuated by body tissue, the patient monitor comprising:*

a display capable of displaying a measured value of a first blood parameter of body tissue of a monitored patient or displaying a measured value of a second blood parameter of the body tissue; and

a user input button, the activation of which causes the display to change from displaying the measured value of the first blood parameter to displaying the measured value of the second blood parameter, wherein the display also changes from displaying the measured value of the first blood parameter to displaying the measured value of the second blood parameter when the second blood parameter passes an alarm threshold,

wherein the measured values of the first and second blood parameters are determined using an output signal of a noninvasive light sensitive detector capable of detecting light attenuated by the body tissue,

wherein the display shifts a positioning of the display of the second blood parameter with respect to a positioning of the display of the first blood parameter.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE