UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STRYKER CORPORATION,

Petitioner

v.

KARL STORZ ENDOSCOPY-AMERICA, INC.,

Patent Owner

Patent No. 8,069,420

Issue Date: November 29, 2011

Title: SYSTEM FOR CONTROLLING THE COMMUNICATION OF MEDICAL IMAGING DATA

IPR Number 2015-00677

PETITION FOR *INTER PARTES* REVIEW

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Exhibit 1002: File History Of U.S. Patent No. 8,069,420

Exhibit 1003: Stryker Communications SwitchPoint III Operations & Maintenance Manual ("SP3 Manual")

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Exhibit 1005: Stryker Endoscopy SDC Pro 2 Stryker Digital Capture Operating & Maintenance Manual ("The SDC Pro 2 Manual")

Exhibit 1006: U.S. Patent No. 5,144,548 ("Salandro")

Exhibit 1007: Service of Complaint in *Karl Storz Endoscopy-America, Inc. v. Stryker Corp. and Stryker Communications, Inc.*, Case No. 14-00876 (N.D. Cal.)

Exhibit 1008: Declaration of Harold J. Walbrink

Exhibit 1009: Declaration of Steven Maulick

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Pursuant to 35 U.S.C. §§ 311-319 and 37 C.F.R. § 42, Stryker Corporation ("Stryker" or "Petitioner") respectfully petitions for *inter partes* review ("IPR") of claims 1-4, 6-7, 9-10, 12-14, 17, 22, 32-35, 37, 39-43, 46-48, 50-55, 57, 68, 72-74, 76-77, and 79-83 of U.S. Patent No. 8,069,420 ("the '420 patent"), which issued on November 29, 2011, and is assigned to Karl Storz Endoscopy-America, Inc. ("KSEA" or "Patent Owner").

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

Petitioner Stryker Corporation is the real party-in-interest. Stryker Communications, Inc., a wholly owned subsidiary of Stryker Corporation, is also an interested party.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

KSEA asserted the '420 patent against Stryker in *Karl Storz Endoscopy-America, Inc. v. Stryker Corp. & Stryker Communications, Inc.*, Case No. 14-00876 (N.D. Cal.), filed February 26, 2014 ("the litigation"). KSEA served the complaint on Stryker no earlier than March 4, 2014. (Ex. 1007.) No patent applications are pending that claim priority to the '420 patent's application. Stryker is concurrently filing a second petition for *inter partes* review of the '420 patent. (*See* IPR No. 2015-00678.) Stryker is also filing petitions for *inter partes* review of the other four patents that KSEA asserted against Stryker in the litigation. (*See* IPR Nos. 2015-00672, 2015-00673, 2015-00674, 2015-00675,

2015-00679, 2015-00764.)

C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

Petitioner provides the following designation of counsel. Pursuant to 37 C.F.R. § 42.8(b)(4), a Power of Attorney accompanies this Petition. Lead Counsel: Robert A. Surrette (Reg. No. 52,262), bsurrette@mcandrews-ip.com. Back-up Counsel: Merle S. Elliott (Reg. No. 52,857), melliott@mcandrews-ip.com; Christopher M. Scharff (Reg. No. 53,556), cscharff@mcandrews-ip.com; and Caroline A. Teichner (Reg. No. 71,689), cteichner@mcandrews-ip.com. Post and Delivery: McAndrews, Held & Malloy, 500 West Madison St., 34th Floor, Chicago, IL 60661. Telephone: 312-775-8000. Facsimile: 312-775-8100.

D. Service Information Under 37 C.F.R. § 42.8(b)(4)

Please address all correspondence to the lead counsel at the address provided in Section I.C of this Petition. Petitioner also consents to electronic service by email at: StrykerKSIPR@mcandrews-ip.com.

II. PAYMENT OF FEES – 37 C.F.R. § 41.103

The required fee has been paid online. Please charge any fee deficiencies or credit any overpayments to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

III. REQUIREMENTS FOR IPR UNDER 37 C.F.R § 42.104

A. Grounds For Standing Under 37 C.F.R. § 42.104(a)

Petitioner certifies that the ‘420 patent is available for IPR and that

Petitioner is not barred or estopped from requesting IPR of the '420 patent.

B. Identification Of Challenge Under 37 C.F.R. § 42.104(b) And Relief Requested

Petitioner requests *inter partes* review of claims 1-4, 6-7, 9-10, 12-14, 17, 22, 32-35, 37, 39-43, 46-48, 50-55, 57, 68, 72-74, 76-77, and 79-83 of the '420 patent on the grounds set forth below and requests that these claims be found unpatentable. An explanation of how all those claims are unpatentable under specified statutory grounds is provided below, including an identification of where each element is found in the prior art and the relevance of each reference. Additional explanation and support for this IPR and each ground of rejection is set forth in the Declaration of Harold J. Walbrink (Ex. 1008), which is submitted in accordance with 37 C.F.R. § 1.68. *Inter partes* review is requested in view of the following references:[1]

- Stryker Communications SwitchPoint III Operations & Maintenance Manual ("SP3 Manual"), a printed publication published at least as early as October 2002, which is §102(b) prior art (Ex. 1003);
- U.S. Patent No. 5,767,897 ("Howell") issued June 16, 1998, which is § 102(b) prior art (Ex. 1004); and
- Stryker Endoscopy SDC Pro 2 Stryker Digital Capture Operating &

[1] The earliest claimed priority date for the '420 patent is August 30, 2004.

Maintenance Manual ("The SDC Pro 2 Manual"), a printed publication published at least as early as January 2002, which is § 102(b) prior art (Ex. 1005).[2]

Ground	Proposed Statutory Rejections for the '420 patent
1	Claims 1-4, 10, 12-14, 17, 22, 32-35, 37, 39, 40-43, 46-48, 50-53, 57, 68, 72-74, 76, 77, and 79-83 anticipated by the SP3 Manual
2	Claims 3, 4, 6, 7, 9, 54, 55, 81, and 82 obvious in view of the SP3 Manual in combination with Howell

C. Claim Construction Under 37 C.F.R. § 42.104(b)(3)

A claim subject to *inter partes* review is given its "broadest reasonable construction in light of the specification of the patent in which it appears," which may be a broader construction than applied by courts during claim construction. 37 C.F.R. § 42.100(b); *see also Corning Optical Comm. RF, LLC v. PPC Broadband, Inc.*, IPR2013-00340, Paper 79 (P.T.A.B. Nov. 21, 2014); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). Further, "[c]onsistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning, as understood by a

[2] Provided herewith are Stryker employee declarations to support that the SDC Pro 2 Manual was a printed publication as of Jan. 2002. (*See* Exs. 1009, 1011, 1013.)

person of ordinary skill in the art, in the context of the entire patent disclosure." *AOL Inc. v. COHO Licensing, LLC,* IPR2014-771, Paper 10 (P.T.A.B. Nov. 20, 2014).

Petitioner proposes the following claim constructions:[3] In independent claims 1 and 79, the term "***medical imaging data***" means "data corresponding to images generated during a medical procedure." (Ex. 1008, Walbrink Decl. at ¶ 30.) The '420 patent explains that "a wide variety of medical imaging systems are known for performing diagnostic and surgical procedures. . . . [B]oth still images and live video being acquired during the surgery can be output to various different screens or recording devices." (*See* Ex. 1001, '420 patent at 1:15-38 (emphasis added); *see also id.* at 1:63-67, 3:34-36.) During prosecution of the '420 patent, the applicant explained that "[t]he present invention is directed to a system that provides a central point from which a user can control the routing of medical imaging data. With the improvement of various audiovisual devices and their increased incorporation into the operating room, it has become common to have multiple sources of imaging data, such as, for example, images from different types of cameras or images from different procedures (such as previously stored

[3] Because of the different claim construction standard in litigation, Petitioner reserves all of its rights with regard to constructions during litigation.

diagnostic imaging and current, live video imaging). Similarly, numerous destinations for these storage devices, such as, for example, multiple monitors/panels for simultaneously displaying these different types of images, have begun to be used in these operating rooms. Thus, the present invention realizes that it is extremely useful to simplify the control of all this medical imaging data at a central location with a single device . . . ." (Ex. 1002, File History of '420 patent at 114-15, 182-83 (emphasis added); Ex. 1008, Walbrink Decl. at ¶ 30.)

IV. BACKGROUND OF THE '420 PATENT

The '420 patent, filed Dec. 29, 2004,[4] claims a system for controlling the communication of medical imaging data. (Ex. 1101, '420 patent at Abstract, Claims.) The '420 patent has 84 claims. Claims 1 and 79 are independent claims.

In claim 1, the '420 patent purports to claim "[a] system for controlling the communication of medical imaging data, comprising: a computer; a plurality of sources of medical imaging data in communication with said computer; a plurality of destinations for the medical imaging data in communication with said computer; and a touchscreen controlled by said computer for simultaneously displaying a

[4] During prosecution, the examiner accepted a § 1.131 affidavit from the applicant to establish an invention date of August 30, 2004.

plurality of source icons and a plurality of destination icons; wherein the plurality of source icons correspond to said plurality of sources in order to allow a user of said system to select a particular source of medical imaging data, and the plurality of destination icons correspond to said plurality of destinations in order to allow the user to select at least one particular destination to receive the medical imaging data supplied by the selected source." (*Id.* at claim 1.) Claim 79 is similar to Claim 1, but also requires "software executing on said computer" for displaying on the touchscreen the plurality of source and destination icons. (*Id.* at claim 79.) The dependent claims are directed to known types of sources and destinations of medical imaging data, as well as known features and functionality of the touchscreen.

Video routing systems, including those used in medical environments, are nothing new. (Ex. 1008, Walbrink Decl. at ¶¶ 39-46.) Such routing systems for the communication of imaging data have existed since at least the late 1970s or early 1980s, and medical routing systems employing fundamentally the same technology as that disclosed in the '420 patent have been readily available since at least the early 1990s. (*See id.*) Indeed, the prior art shows that such video routing systems existed for many years before the alleged invention of the '420 patent. For example, U.S. Patent No. 5,144,548 ("Salandro," Ex. 1006), which issued in 1992,

discloses a video router system having exactly the same basic functionality as that claimed in the '420 patent. (*See id.* at ¶ 46.)

V. ELEMENT-BY-ELEMENT ANALYSIS OF HOW CHALLENGED CLAIMS ARE UNPATENTABLE (37 C.F.R. §§ 42.104)

There is a reasonable likelihood that claims 1-4, 6-7, 9-10, 12-14, 17, 22, 32-35, 37, 39-43, 46-48, 50-55, 57, 68, 72-74, 76-77, and 79-83 are unpatentable as anticipated or rendered obvious in view of the prior art.

A. Ground 1: Claims 1-4, 10, 12-14, 17, 22, 32-35, 37, 39, 40-43, 46-48, 50-53, 57, 68, 72-74, 76, 77, And 79-83 Are Anticipated Under 35 U.S.C. § 102(b) By The SP3 Manual

Claims 1-4, 10, 12-14, 17, 22, 32-35, 37, 39, 40-43, 46-48, 50-53, 57, 68, 72-74, 76, 77, and 79-83 are anticipated under 35 U.S.C. § 102(b) by the SP3 Manual. The SP3 Manual is missing only the narrow limitations of dependent claims 6, 7, 9, 54, 55, and 82, which would have been obvious. (*See* § IV.B below.)

The SP3 Manual is a printed publication under § 102(b), first published at least as early as October 21, 2002, which describes the operation and functionality of Stryker's SwitchPoint III system. Provided herewith as Exhibits 1009-1013 are declarations submitted by various Stryker employees to support that the SP3 Manual (Ex. 1003) is a printed publication. (*See* Exs. 1009-1013.) The SP3 Manual expressly discloses each of the elements of claims 1-3, 4, 10, 12-14, 17, 22, 32-35, 37, 39, 40-43, 46-48, 50-53, 57, 68, 72-74, 76, 77, 79-81, and 83.

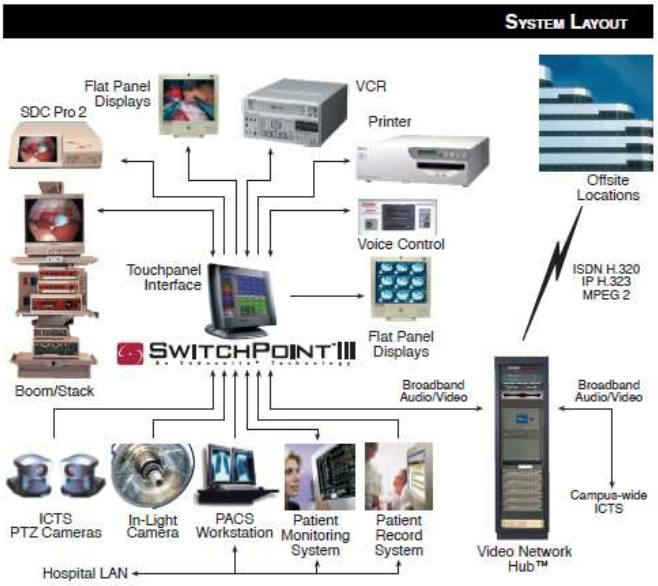
(i) Independent claims 1, 79:

Independent claims 1 and 79 feature similar elements and will be addressed together. To the extent the preamble is limiting, the SP3 Manual discloses a "system for controlling the communication of medical imaging data," as recited by both claims 1 and 79. (Ex. 1003, SP3 Manual at 11 ("The SwitchPoint III Video Router and Conferencing Interface manages Endoscopic OR communications by bringing all signals to a centralized point where they can be controlled and directed using a touchpanel interface."); *see also id.* at 10, 12, 73; Ex. 1008, Walbrink Decl. at ¶ 51.)

Each element of independent claims 1 and 79 is found in the SP3 Manual. ***First***, the SP3 Manual discloses "***a computer***," as recited by claims 1 and 79. The SP3 Manual discloses that, "[w]hen the SwitchPoint III is first installed or moved to a new location within the hospital campus, time, date and location information must be entered into the onboard computer." (Ex. 1003, SP3 Manual at 82; *see also id.* at 10, 11; Ex. 1008, Walbrink Decl. at ¶ 51.)

Second, the SP3 Manual discloses "***a plurality of sources of medical imaging data in communication with said computer***," as recited by claims 1 and 79. The SP3 Manual teaches that "[t]he SwitchPoint III can be equipped to route high-resolution images allowing the clinician to choose a wide range of high-resolution sources to be viewed on flat panel displays. Many types of equipment

used in the clinical environment generate high-resolution outputs including Stryker 988 endoscopic cameras, PACS systems, patient monitors, and nursing computers." (Ex. 1003, SP3 Manual at 29 (emphasis added).) As shown below, the various sources of medical imaging data in communication with the computer can include PTZ cameras, in-light cameras, VCRs, etc.:



(*See id.* at 11, 19-27; Ex. 1008, Walbrink Decl. at ¶ 51.)

Third, the SP3 Manual discloses "***a plurality of destinations for the medical imaging data in communication with said computer***," as recited by claims 1 and 79. The SP3 Manual expressly discloses, as shown in the figure above, that the destinations for the medical imaging data in communication with the computer can include Flat Panel Displays, SDC Pro 2, and VCRs. (*See* Ex. 1003, SP3 Manual at 11; *see also id.* at 19-27; Ex. 1008, Walbrink Decl. at ¶ 51.)

Fourth, the SP3 Manual discloses "***a touchscreen controlled by said computer for simultaneously displaying a plurality of source icons and a plurality of destination icons***," as recited by claim 1. The SP3 Manual explains that "[t]he Touchpanel Interface controls nearly every function of the SwitchPoint III." (Ex. 1003, SP3 Manual at 34 (emphasis added).) The SwitchPoint III has a "Video Router" menu that "allows you to route images from various cameras or visual input devices in the Endosuite® OR to monitors or documentation devices connected to the SwitchPoint III." (*Id.* at 45.) The Video Router menu simultaneously displays "***a plurality of source icons***" and "***a plurality of destination icons***," as expressly shown in the Figure below:

(*Id.* (annotated); *see also id.* at 10, 11, 12, 22, 34.) There is overlap between some of the source and destination icons in the Figure above because some devices have dual functionality. (*See id.* at 46, 73; Ex. 1008, Walbrink Decl. at ¶ 51.)

Fifth, the SP3 Manual discloses that "***the plurality of source icons correspond to said plurality of sources in order to allow a user of said system to select a particular source of medical imaging data, and the plurality of destination icons correspond to said plurality of destinations in order to allow the user to select at least one particular destination to receive the medical imaging data supplied by the selected source***," as recited by claim 1. The SP3 Manual discloses a two-touch approach for enabling users to route a particular source of medical imaging data to a particular destination. (*See* Ex. 1003, SP3 Manual at 47.) The user first presses a source icon, which corresponds to a particular source, then presses a destination icon, which corresponds to a particular destination, to route the chosen source to the chosen destination, as expressly shown below:

(*Id.*; *see also id.* at 11, 46; Ex. 1008, Walbrink Decl. at ¶ 51.)

Independent claim 79 combines the fourth and fifth elements of independent claim 1, the disclosure of which is discussed above, and recites: "***a touchscreen controlled by said computer; software executing on said computer for displaying on said touchscreen a plurality of source icons corresponding to said plurality of sources of medical imaging data in order to allow a user of said system to select a particular source of medical imaging data; and software executing on said computer for displaying on said touchscreen a plurality of destination icons corresponding to said plurality of destinations in order to allow the user to select at least one particular destination to receive the medical imaging data supplied by the selected source***." (Ex. 1003, SP3 Manual at 34, 45-47, 73; *see also id.* at 10-12, 22, 34; Ex. 1008, Walbrink Decl. at ¶ 51.)

The SP3 Manual discloses software executing on the computer to enable the touchscreen to have the functionality described herein with respect to the fourth and fifth elements of claim 1. (*See, e.g.*, Ex. 1003, SP3 Manual at 36 (identifying "Software Version" on opening menu of SwitchPoint III touchpanel); *see also id.* at 10 ("[I]nternal software can be modified or updated remotely."), 19 (identifying telephone modem connection for software updates), 78.) Software is necessary to render the display of the source and destination icons on the touchscreen, and to interpret a user's selection of a particular icon (which merely marks a particular location on the touchscreen) into a meaningful command. (Ex. 1008, Walbrink

Decl. at ¶ 51.) Thus, as described above, the SP3 Manual discloses all of the limitations of claims 1 and 79.

Turning then to the dependent claims, the SP3 Manual discloses the additional limitations of dependent claims 2-4, 10, 12-14, 22, 32-35, 37, 39, 40-43, 46-48, 50-53, 57, 68, 72-74, 76, 77, 80, 81, and 83, as discussed below. Due to substantial overlap, certain claims are addressed together below.

(ii) Claims 2, 80:

The SP3 Manual discloses that "***said touchscreen further comprises a display window for displaying medical images generated from the medical imaging data supplied by the selected source***" (claim 2), and "***software executing on said computer for displaying on said touchscreen medical images generated from the medical imaging data supplied by the selected source***" (claim 80). The SP3 Manual explains that "[t]he SwitchPoint III displays a preview image of selected video sources directly on the touchpanel eliminating the need for an external preview monitor. . . . Select from the **'Sources'** list. A preview of that source will immediately be visible in the 'preview' window in the lower left-hand corner of the touchpanel." (Ex. 1003, SP3 Manual at 48 (underlining emphasis added).) The Figure below expressly depicts the "***display window***," which "***display[s] . . . medical images generated from the medical imaging data supplied by the selected source***":

(*Id.*; *see also id.* at 12, 22, 36, 38, 56, 69.) The SP3 Manual discloses software executing on the computer to enable the touchscreen to display the medical images as described herein. (*See, e.g., id.* at 36; *see also id.* at 10, 19, 78; Ex. 1008, Walbrink Decl. at ¶ 52.)

(iii) Claims 3, 81:

The SP3 Manual discloses that "***the display window is located between the plurality of source icons and the plurality of destination icons***" (claim 3), and that "***the medical images are displayed between the plurality of source icons and the plurality of destination icons***" (claim 81). The SP3 Manual explains that "[a] preview of [the selected] source will immediately be visible in the 'preview' window in the lower left-hand corner of the touch panel." (Ex. 1003, SP3 Manual at 48; *see also id.* at 12, 22, 36, 38, 46, 56, 69.) This preview window can also be enlarged to fill the whole screen. (*See id.* at 48.) The SP3 Manual further

discloses that a preview window can also be centrally located on the touch panel, as shown below:

(*Id.* at 62 (annotated).) Accordingly, the SP3 Manual discloses that the "***display window***" and "***[displayed] medical images***" can be shown on the touch screen in various sizes and positions. (Ex. 1008, Walbrink Decl. at ¶ 53.) Based on the SP3 Manual, a person of ordinary skill would know how to place the display window "***between***" the source and destination icons. (*See id.*) Importantly, the placement of the display window and/or medical images has no impact on the functionality of the system and is entirely a design choice. (*See id.*)

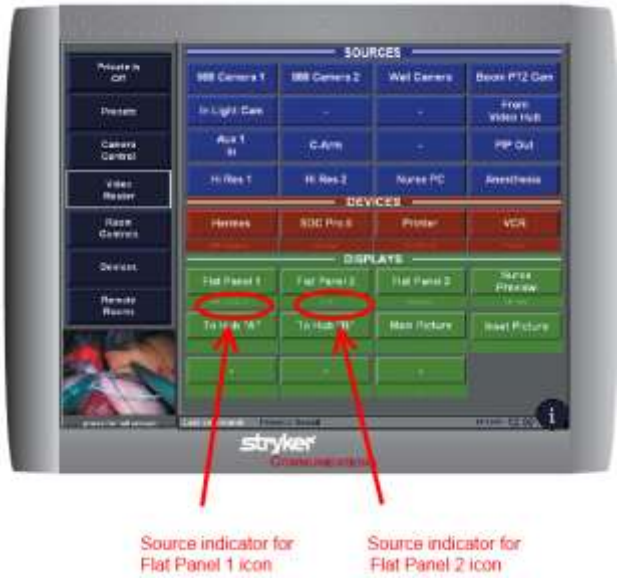
(iv) Claims 4, 57, 82:

The SP3 Manual discloses that "***said touchscreen further comprises a source indicator located adjacent to the display window, wherein the source indicator corresponds to the selected source***" (claim 4). The SP3 Manual further discloses that "***each of the plurality of destination icons includes a source***

indicator that corresponds to the selected source for that destination" (claim 57). The SP3 Manual also discloses "***software executing on said computer for displaying on said touchscreen a source indicator located adjacent to the displayed medical images, wherein the source indicator corresponds to the selected source***" (claim 82).

The SP3 Manual explains how to perform basic routing as follows: "To begin the process select a blue **'Source'** button corresponding to a video input you want to record or view. The button will highlight in white. The current video image from that Source will be displayed on the Preview inset in the lower left hand corner of the SwitchPoint III touchpanel." (Ex. 1003, SP3 Manual at 46 (underlining emphasis added).) Therefore, the highlighting of the source button in white serves as the claimed "***source indicator***" and is located near to the display window on the touchpanel. (Ex. 1008, Walbrink Decl. at ¶ 54.)

The SP3 Manual further discloses that each of the plurality of destination icons includes a source indicator that corresponds to the selected source for that destination. In the Figure shown below, for example, the destination icon for "Flat Panel 1" has a "*source indicator*" identifying "988 Camera 1" as the selected source, where the source indicator is located "***adjacent to***" the display window:



(*See id.* at 45 (annotated), 46.) The remaining destination icons also have source indicators corresponding to the selected source for each. (*See id.*) As described above, the SP3 Manual discloses software executing on the computer to enable the touchscreen to display the source indicators as described. (*See, e.g., id.* at 36; *see also id.* at 10, 19, 78; Ex. 1008, Walbrink Decl. at ¶ 54.)

(v) Claims 10, 83:

The SP3 Manual discloses that "***said touchscreen further comprises a set of controls associated with the selected source***" (claim 10). The SP3 Manual similarly discloses "***software executing on said computer for displaying on said touchscreen a set of controls associated with the selected source***" (claim 83). For example, the SP3 Manual explains that when a room camera is the selected source, the user can select the "Camera Control" button from the "Menu Bar," which "operates the pan/tilt/zoom room cameras located within the local room." (Ex.

1003, SP3 Manual at 38.) "The 'Room Camera Control' menu directs the operation of the wall-mounted pan/tilt/zoom cameras in the OR. The menu allows you to adjust the pan/tilt/zoom functions as well as to focus the camera to frame the action." (*Id.* at 42 (emphasis added).) The Figure below shows a set of controls on the touch screen when the room camera is the selected source:

(*Id.*; *see also id.* at 22, 38, 44, 51, 58, 59.) As discussed above, the SP3 Manual discloses software executing on the computer to enable the touchscreen to display controls associated with the selected source as described herein. (*See, e.g.*, *id.* at 36; *see also id.* at 10, 19, 78; Ex. 1008, Walbrink Decl. at ¶ 55.)

(vi) Claim 12:

The SP3 Manual discloses that "***the controls comprise virtual buttons***." For example, the controls within the "Room Camera Control" menu (as shown in the Figure immediately above) have edges that comprise light areas and shadows, thereby giving users the impression that they are pressing a three-dimensional

object. (Ex. 1003, SP3 Manual at 42; *see also id.* at 22, 38, 44, 46, 51, 58.) The SP3 Manual also discloses that buttons become outlined in white when selected by a user, thereby giving the user the impression that he/she has depressed a physical button. (*See id.* at 40 (bottom figure).) For at least these reasons, the buttons comprise "***virtual buttons***." (Ex. 1008, Walbrink Decl. at ¶ 56.)

(vii) Claims 13, 14:

The SP3 Manual discloses that "***the controls include panning controls* [and] *zooming controls***." The SP3 Manual explains that, "[t]o access pan/tilt/zoom controls; first select one of the available room cameras from the buttons at the bottom of the screen. Next, direct the camera by pressing and holding a button corresponding to the direction that you want the camera to pan or tilt. For example, press and hold the **Left** button and you will observe the camera head moving from right to left. . . . **Zoom** and **Tilt** controls operate in the same manner." (Ex. 1003, SP3 Manual at 42 (underlining emphasis added); *see also, e.g., id.* at 14, 19, 38, 44, 57-59; Ex. 1008, Walbrink Decl. at ¶ 57.)

(viii) Claim 17:

The SP3 Manual discloses "***a save control for saving images***." In describing the functionality of the SP3 videoconferencing interface, the SP3 Manual explains that users "can send a snapshot from any local camera to the participants in a video conference by using the snapshot feature on the SwitchPoint

III." (*Id.* at 69 (emphasis added).) In order to take a snapshot from the local camera, the user "[p]osition[s] the camera as necessary" using controls on the videoconferencing interface. (*Id.*) The user then "[p]ress[es] the **Snapshot** button . . . ." (*Id.* (emphasis in original).) In order to send a snapshot, the SP3 must necessarily first save it. (Ex. 1008, Walbrink Decl. at ¶ 58.)

(ix) Claim 22:

The SP3 Manual discloses that "***at least one of said plurality of sources of medical imaging data comprises a processor for routing medical imaging data from a plurality of other sources to the computer simultaneously***." The SP3 Manual teaches that "[t]he Picture-in-Picture or PIP is an optional feature on the SwitchPoint III that allows you to display up to 2 **Sources** simultaneously on a single video monitor or flat panel display. In addition, this 'PIP' can be routed to a printer, VCR, SDC Pro 2 or other recording device." (Ex. 1003, SP3 Manual at 49 (underlining emphasis added); *see also id.* at 10, 11, 20, 38, 46 (discussing SDC Pro 2 and HERMES), 50; Ex. 1008, Walbrink Decl. at ¶ 59.)

(x) Claim 32:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises a camera***." The Figure shown below expressly discloses at least one camera among the available sources of medical imaging data:

(Ex. 1003, SP3 Manual at 45 (annotated); *see also id.* at 11, 12, 19-27; Ex. 1008, Walbrink Decl. at ¶ 60.)

(xi) Claims 33, 37:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises an endoscopic camera***" (claim 33) and, in particular, "***a video endoscope***" (claim 37). The SP3 Manual explains that "[i]f a Source or Display has a hi-resolution capability, the highest resolution image will automatically be routed using the SwitchPoint III. For instance, routing a Stryker 988 endoscopic camera to a Stryker flat panel display will cause the hi-resolution output of the 988 camera to be viewed on the flat panel." (Ex. 1003, SP3 Manual at 47 (emphasis added); 19.) The SP3 Manual depicts a Stryker 988 endoscopic camera as an available source of medical imaging data, as expressly shown in the Figure below:

(*Id.* at 45 (annotated); *see also id.* at 19-27; Ex. 1008, Walbrink Decl. at ¶ 61.)

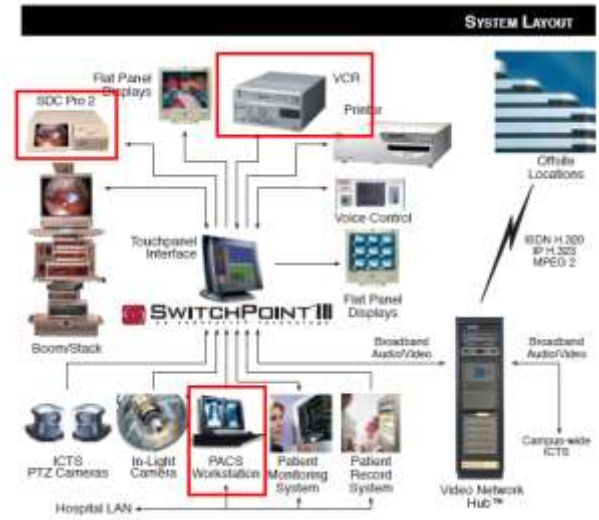
(xii) Claims 34, 35:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises a room camera***" (claim 34) and "***a light camera***" (claim 35). The Figure below expressly depicts both "***a room camera***" and "***a light camera***" as sources of medical imaging data in the SwitchPoint III system:

(Ex. 1003, SP3 Manual at 45 (annotated); *see also id.* at 11, 12, 19-27; Ex. 1008, Walbrink Decl. at ¶ 62.)

(xiii) Claims 39, 40, 41:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises a digital video recorder***" (claim 39), "***a device for storing images***" (claim 40), and "***an image capture device***" (claim 41). The Figure below expressly depicts a "VCR," an "SDC Pro 2," and a "PACS Workstation" among the plurality of sources of medical imaging data to the SwitchPoint III, where all three of these devices constitute "***digital video recorders***," "***devices for storing images***," and "***image capture devices***":



(Ex. 1003, SP3 Manual at 11 (annotated); *see also id.* at 19-27; *see also* Ex. 1005, SDC Pro 2 Manual at 8 ("SDC Pro 2 stores high quality digital images and videos that are PC compatible."); Ex. 1008 Walbrink Decl. at ¶ 63.) The SP3 Manual explains that "[t]he SwitchPoint III gives a special distinction to Devices such as the SDC Pro 2, HERMES, Printers and VCRs. These Devices are capable of receiving video signals, but their output can be rerouted to a display so that the

surgeon can view what is currently being recorded on a given documentation device." (Ex. 1003, SP3 Manual at 46 (emphasis added); Ex. 1008 Walbrink Decl. at ¶ 63.)

(xiv) Claim 42:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises a PACS computer***." The Figure shown immediately above expressly discloses a "PACS Workstation" as one of the sources of medical imaging data available to the SwitchPoint III system. (*See* Ex. 1003, SP3 Manual at 11; *see also id.* at 29, 47, 85; Ex. 1008, Walbrink Decl. at ¶ 64.)

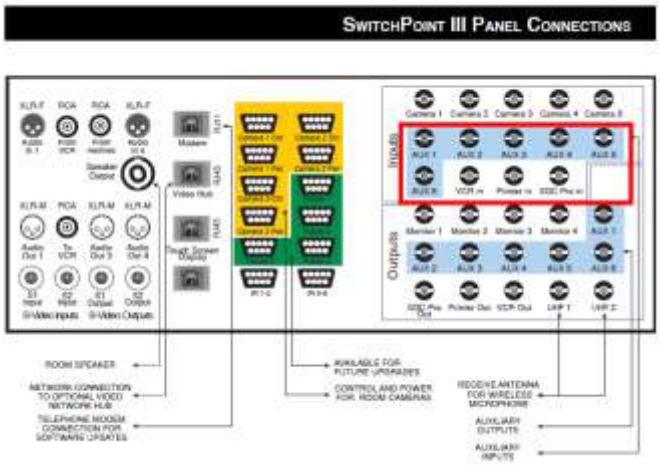
(xv) Claim 43:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises a control computer that centrally controls a plurality of devices***." The SP3 Manual discloses an example "System 2" in which "two endoscopic cameras, one remote room PTZ camera, a printer, a HERMES OR Control Center, a [*sic*] SDC PRO 2, a VCR, one video monitor and one flat panel display" are connected as one system, where both the HERMES OR Control Center and the SDC Pro 2 constitute "***control computers that centrally control a plurality of devices***." (Ex. 1003, SP3 Manual at 21 (emphasis added); *see also id.* at 11, 20, 24, 45 (showing HERMES and SDC Pro II as available sources), 46; Ex. 1005, SDC Pro 2 Manual at 8 ("The [SDC Pro 2] system connects to existing video

monitors and endoscopy systems. Image storage and digital video operations are easily controlled from the sterile field via wireless remote control . . . or by using the convenient touch screen located right on the SDC Pro 2 console."); Ex. 1008, Walbrink Decl. at ¶ 65.)

(xvi) Claim 46:

The SP3 Manual discloses that "***at least one said plurality of sources of medical imaging data comprises an auxiliary input for external devices***." As shown below, the SP3 Manual discloses that the SwitchPoint III panel has several auxiliary inputs for external devices:



(Ex. 1003, SP3 Manual at 19 (annotated).) The SP3 Manual explains, for example, that "[t]he Video Hub is connected to the SwitchPoint III using the Audio In and Out XLR connectors, the UTP Ethernet connection and the Auxiliary (AUX) video input and output connectors." (*Id.* at 20; *see also id.* at 76 (connecting external video devices); Ex. 1008, Walbrink Decl. at ¶ 66.)

(xvii) Claims 47, 48, 50:

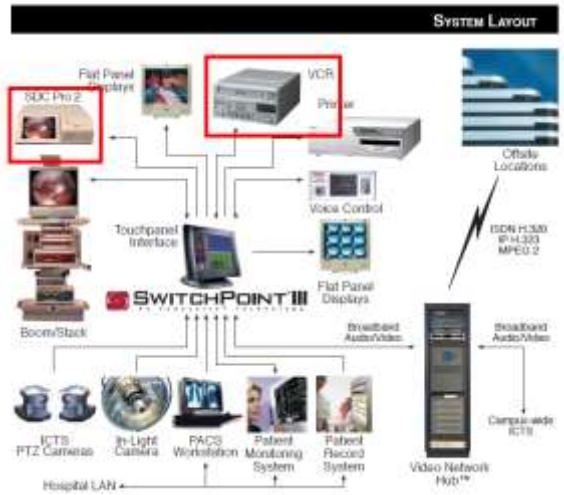
The SP3 Manual discloses that "***at least one said plurality of destinations for the medical imaging data comprises a display***" (claim 47), "***a flat panel display***" (claim 48), and "***a computer monitor***" (claim 50). As shown below, the SP3 Manual expressly depicts a display, namely a flat panel display, as an available destination for the medical imaging data in the SwitchPoint III system:

(Ex. 1003, SP3 Manual at 45 (annotated).) The SP3 Manual further explains that "[i]f a Display has only a hi-resolution input, such as a standard computer monitor, choose 'Hi-Res.'" (*Id.* at 86 (emphasis added); *see also id.* at 11, 19-27, 29; Ex. 1008, Walbrink Decl. at ¶ 67.)

(xviii) Claims 51, 52:

The SP3 Manual discloses that "***at least one said plurality of destinations for the medical imaging data comprises a recording device***" (claim 51) and "***a storage device***" (claim 52). The Figure below expressly depicts both an "SDC Pro

2" and a "VCR" among the plurality of destinations in the SwitchPoint III system, each of which constitutes "***a recording device***" and "***a storage device***":



(Ex. 1003, SP3 Manual at 11 (annotated); *see also id.* at 12, 49; *see also* Ex. 1005, SDC Pro 2 Manual at 21 (explaining options for recording), 23 (explaining options for storing images and video; Ex. 1008, Walbrink Decl. at ¶ 68.)

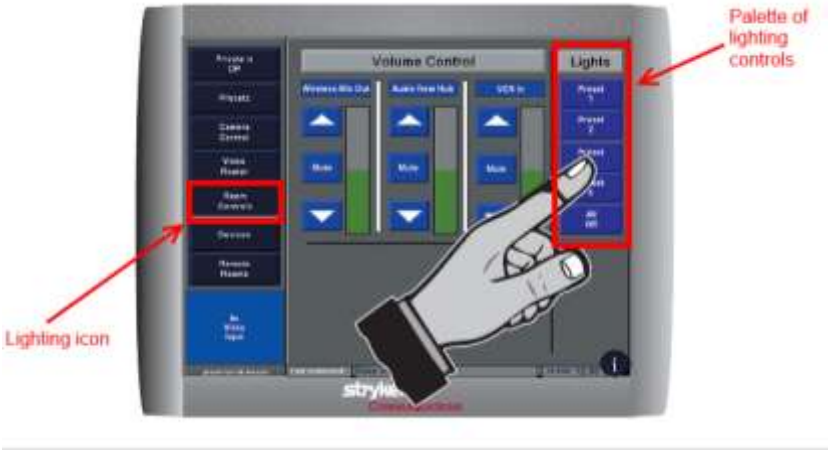
(xix) Claim 53:

The SP3 Manual discloses that "***each of the plurality of source icons comprises a virtual button***." As discussed in § V.A.vi above with respect to the camera controls, the source icons have edges that comprise light areas and shadows, thus giving users the impression that they are pressing a three-dimensional object. (Ex. 1003, SP3 Manual at 45.) The SP3 Manual also discloses that source icons become outlined in white when selected by a user, thereby giving the user the impression that he/she has depressed a physical button.

(*See id.* at 46.) For at least these reasons, the source icons comprise "***virtual buttons***." (Ex. 1008, Walbrink Decl. at ¶ 69.)

(xx) Claim 68:

The SP3 Manual discloses that "***said touchscreen further comprises a lighting icon for displaying a palette of lighting controls***." The SP3 Manual explains that "[l]ighting levels are preset on the wall-mounted controller. Using the slider switches on the wall panel, adjust lighting to accommodate specific surgeons or OR procedures. To activate Presets go to the Room Control menu on the touchpanel display." (Ex. 1003, SP3 Manual at 52 (emphasis added).) This causes the touch panel to display "***a palette of lighting controls***," namely the five preset lighting options expressly shown in the Figure below:



(*Id.* (annotated); Ex. 1008, Walbrink Decl. at ¶ 70.)

(xxi) Claim 72:

The SP3 Manual discloses that "***said touchscreen further comprises a speakerphone icon for displaying controls associated with a speakerphone***." The

SP3 Manual discloses a "Video Call" button on the CODEC menu, whereby pressing this button brings up a keypad that enables the user make a phone call. (*See* Ex. 1003, SP3 Manual at 63-66; *see also id.* at 11, 13-16, 53-70.) The SP3 Manual also discloses room speakers for "OR-Based Conferencing" and a surgeon's wireless microphone, which are accessories used in placing a speakerphone call. (*See id.* at 10, 13, 15, 16, 20, 21, 28 ("Hermes Phone"); Ex. 1008, Walbrink Decl. at ¶ 71.)

(xxii) Claims 73, 74:

The SP3 Manual discloses that "***said touchscreen further comprises a videoconference button for displaying a videoconferencing interface***" (claim 73), "***wherein the videoconferencing interface comprises: a palette containing the source icons corresponding to the sources of medical imaging data from which the user can select the source of medical imaging data to be communicated to a remote user; a display window for displaying medical images generated from the medical imaging data supplied by the selected source; a set of controls associated with the selected source; and a set of controls associated with videoconferencing***" (claim 74). The Figure shown below, which depicts the "Off Site Control" menu on the SwitchPoint touch panel, discloses most of these claim elements:

(Ex. 1003, SP3 Manual at 62 (annotated).) The SP3 Manual further explains that users can connect to an offsite location and conduct a videoconference by "[p]ress[ing] the **'Remote Rooms'** button on the Menu Bar. This will bring up the Room Connection menu." (*Id.*) To connect to an offsite location, the user selects a blue "**'Off Site'**" button from the Room Connection menu, then presses the red "**'Connect'**" button at the bottom of the menu. (*Id.* (emphasis in original).) "Once the rooms are connected, you can change the video source being routed from your room to the Off-site location. Select the **'Video Router'** menu and route a new **Source** in the same manner as before . . . ." (*Id.* (emphasis in original).) The "Video Router" menu brings up a palette of sources of medical imaging data. (*Id.*) The SP3 Manual further describes that users "can send a snapshot from any local camera to the participants in a video conference by using the Snapshot feature on

the SwitchPoint III." (*Id.* at 69.) To take a snapshot from the local camera, the user "[p]osition[s] the camera as necessary" using controls on the videoconferencing interface. (*Id.*) The videoconferencing interface includes "Hang Up," "Slides," and "Disconnect" controls, which are used to control various aspects of the videoconference. (*See id.*; *see also id.* at 11, 13, 14, 22, 42-45, 48, 51, 53-70; Ex. 1008, Walbrink Decl. at ¶ 72.)

(xxiii) Claims 76, 77:

The SP3 Manual discloses that the "***touchscreen further includes a presets icon to allow a user to enter a presets utility***" (claim 76), "***wherein the presets utility includes controls for storing a set of parameters for at least some of the selections of the user and assigning a name to the stored set of parameters***" (claim 77). The SP3 Manual instructs that, "[t]o save the current settings as a 'Preset', press and hold one of the marked **'Preset'** buttons for one second. . . . To rename the Preset, with the **Preset** button still highlighted, press **Clear** and the previous name will be erased. Using the on-screen keyboard, type in a new name for the surgeon or OR procedure the Preset is configured to accommodate." (Ex. 1003, SP3 Manual at 41 (emphasis in original); *see also id.* at 34, 35, 38, 40, 42, 43, 58, 72; Ex. 1008, Walbrink Decl. at ¶ 73.)

Claim Charts: The following claim charts contain detailed citation to disclosure in the SP3 Manual that anticipates each of claims discussed above. Due

to substantial overlap certain claims are addressed together below.

Claims 1, 79	SP3 Manual
(1, 79) A system for controlling the communication of medical imaging data, comprising:	"The SwitchPoint III Video Router and Conferencing Interface manages Endoscopic OR communications by bringing all signals to a centralized point where they can be controlled and directed using a touchpanel interface." (Ex. 1003, SP3 Manual at 11; *see also id.* at 10, 12, 73; Ex. 1008, Walbrink Decl. at ¶ 51.)
(1, 79) a computer;	"When the SwitchPoint III is first installed or moved to a new location within the hospital campus, time, date and location information must be entered into the onboard computer." (Ex. 1003, SP3 Manual at 82; *see also id.* at 10, 11; Ex. 1008, Walbrink Decl. at ¶ 51.)
(1, 79) a plurality of sources of medical imaging data in communication with said computer;	"The SwitchPoint III can be equipped to route high-resolution images allowing the clinician to choose a wide range of high-resolution sources to be viewed on flat panel displays. Many types of equipment used in the clinical environment generate high-resolution outputs including Stryker 988 endoscopic cameras, PACS systems, patient monitors, and nursing computers." (Ex. 1003, SP3 Manual at 29; *see also id.* at 19-27; Ex. 1008, Walbrink Decl. at ¶ 51.)
(1, 79) a plurality of destinations for the medical imaging data in communication with said computer; and	"The SwitchPoint III manages video routing as a chain of events. Once a video Source is selected, it can be routed to a number of **Devices** or **Displays** in a row. This simplifies the process and allows the same Input Source to be viewed and recorded in multiple ways." (Ex. 1003, SP3 Manual at 46 (emphasis in original); *see also id.* at 11; 19-27; Ex. 1008, Walbrink Decl. at ¶ 51.)
(1) a touchscreen controlled by said computer for simultaneously displaying a plurality of source icons and a plurality of destination icons;	"The Touchpanel Interface controls nearly every function of the SwitchPoint III." (Ex. 1003, SP3 Manual at 34.) "The 'Video Router' menu allows you to route images from various cameras or visual input devices in the Endosuite® OR to monitors or documentation devices connected to the SwitchPoint III." (*Id.* at 45.) "To begin the process select a blue

(79) a touchscreen controlled by said computer;	**'Source'** button corresponding to a video input you want to record or view. . . . Next press a red **'Device'** button to record or redirect the video image." (*Id.* at 46 (emphasis in original); Ex. 1008, Walbrink Decl. at ¶ 51.)
(1) wherein the plurality of source icons correspond to said plurality of sources in order to allow a user of said system to select a particular source of medical imaging data, and the plurality of destination icons correspond to said plurality of destinations in order to allow the user to select at least one particular destination to receive the medical imaging data supplied by the selected source.	"To begin the process select a blue **'Source'** button corresponding to a video input you want to record or view. . . . Next press a red **'Device'** button to record or redirect the video image. . . . The video source will be routed to the Device and the output of that device will be available to route to another Device or OR Display automatically." (*See* Ex. 1003, SP3 Manual at 46 (emphasis in original); *see also id.* at 47; Ex. 1008, Walbrink Decl. at ¶ 51.)
(79) software executing on said computer for displaying on said touchscreen a plurality of source icons corresponding to said plurality of sources of medical imaging data in order to allow a user of said system to select a particular source of medical imaging data; and *(79) software executing on said computer for*	"To begin the process select a blue **'Source'** button corresponding to a video input you want to record or view. . . . Next press a red **'Device'** button to record or redirect the video image. . . . The video source will be routed to the Device and the output of that device will be available to route to another Device or OR display automatically." (*See* Ex. 1003, SP3 Manual at 46; *see also id.* at 47, 36 ("Software Version"), 10 ("[I]nternal software can be modified or updated remotely."), 19 ("telephone modem connection for software updates"), 78; Ex. 1008, Walbrink Decl. at ¶ 51.)

displaying on said touchscreen a plurality of destination icons corresponding to said plurality of destinations in order to allow the user to select at least one particular destination to receive the medical imaging data supplied by the selected source.	
Claims 2, 80	**SP3 Manual**
(2) A system as claimed in claim 1, wherein said touchscreen further comprises a display window for displaying medical images generated from the medical imaging data supplied by the selected source. *(80) A system as claimed in claim 79, further comprising software executing on said computer for displaying on said touchscreen medical images generated from the medical imaging data supplied by the selected source.*	The SP3 Manual discloses all the elements of claims 1 and 79, as discussed above. The analyses of claims 1 and 79 are incorporated by reference in their entirety. "The SwitchPoint III displays a preview image of selected video sources directly on the touchpanel eliminating the need for an external preview monitor. To preview a Source, select the 'Video Router' menu from the list of functions on the Menu Bar. The Video Router menu will display a list of **Sources** and **Devices** or **Displays** available within the Endosuite® OR or other hospital location. Select from the **'Sources'** list. A preview of that source will immediately be visible in the 'preview' window in the lower left-hand corner of the touchpanel." (Ex. 1003, SP3 Manual at 48 (emphasis in original); *see also id.* at 12, 22, 38, 46, 56, 69, 36 ("Software Version"), 10 ("[I]nternal software can be modified or updated remotely."), 19, 78; Ex. 1008, Walbrink Decl. at ¶ 52.)
Claims 3, 81	**SP3 Manual**
(3) A system as claimed in claim 2, wherein the display window is located between the plurality of	The SP3 Manual discloses all the elements of claims 2 and 80, as discussed above. The analyses of claims 2 and 80 are incorporated by reference in their entirety.

source icons and the plurality of destination icons. *(81) A system as claimed in claim 80, wherein the medical images are displayed between the plurality of source icons and the plurality of destination icons.*	"A preview of [the selected] source will immediately be visible in the 'preview' window in the lower left-hand corner of the touchpanel." (Ex. 1003, SP3 Manual at 48; *see also id.* at 12, 22, 36, 38, 46, 56, 69.) "To enlarge the **'preview'** to full screen, touch the small image in the **'preview'** window of the touchpanel. The image will enlarge to fill the screen." (*Id.* at 48; *see also id.* at 62; Ex. 1008, Walbrink Decl. at ¶ 53.)
Claims 4, 57, 82	**SP3 Manual**
(4) A system as claimed in claim 2, wherein said touchscreen further comprises a source indicator located adjacent to the display window, wherein the source indicator corresponds to the selected source. *(57) A system as claimed in claim 1, wherein each of the plurality of destination icons includes a source indicator that corresponds to the selected source for that destination.* *(82) A system as claimed in claim 80, further comprising software executing on said computer for displaying on said touchscreen a source indicator located adjacent to the displayed*	The SP3 Manual discloses all the elements of claims 1, 2, and 80, as discussed above. The analyses of claims 1, 2, and 80 are incorporated by reference in their entirety. "To begin the [routing] process select a blue **'Source'** button corresponding to a video input you want to record or view. The button will highlight in white. The current video image from that Source will be displayed on the Preview inset in the lower left hand corner of the SwitchPoint III touchpanel." (Ex. 1003, SP3 Manual at 46 (underlining emphasis added).) "Next press a red **'Device'** button to record or redirect the video image. This button will highlight in white as well. The video source will be routed to the Device and the output of that device will be available to route to another Device or OR Display automatically. A small text indicator below the Device button will indicate what Source is routed to it." (*Id.* (underlining emphasis added); *see also id.* at 45, 36 ("Software Version"), 10 ("[I]nternal software can be modified or updated remotely."), 19, 78; Ex. 1008, Walbrink Decl. at ¶ 54.)

medical images, wherein the source indicator corresponds to the selected source.	
Claims 10, 83	**SP3 Manual**
(10) A system as claimed in claim 2, wherein said touchscreen further comprises a set of controls associated with the selected source. *(83) A system as claimed in claim 80, further comprising software executing on said computer for displaying on said touchscreen a set of controls associated with the selected source.*	The SP3 Manual discloses all the elements of claims 2 and 80, as discussed above. The analyses of claims 2 and 80 are incorporated by reference in their entirety. "The 'Room Camera Control' menu directs the operation of the wall-mounted pan/tilt/zoom cameras in the OR. The menu allows you to adjust the pan/tilt/zoom functions as well as to focus the camera to frame the action. Each camera can be remotely panned left or right, tilted up and down, or zoomed in and out." (Ex. 1003, SP3 Manual at 42; *see also id.* at 22, 44, 51, 58, 59, 36 ("Software Version"), 10 ("[I]nternal software can be modified or updated remotely."), 19, 78; Ex. 1008, Walbrink Decl. at ¶ 55.)
Claim 12	**SP3 Manual**
12. A system as claimed in claim 10, wherein the controls comprise virtual buttons.	The SP3 Manual discloses all the elements of claim 10, as discussed above. The analysis of claim 10 is incorporated by reference in its entirety. (*See* Ex. 1003, SP3 Manual at 42; *see also id.* at 22, 38, 44, 46, 51, 58; Ex. 1008, Walbrink Decl. at ¶ 56.)
Claims 13, 14	**SP3 Manual**
(13) A system as claimed in claim 12, wherein the controls include panning controls. *(14) A system as claimed in claim 12, wherein the controls include zooming controls.*	The SP3 Manual discloses all the elements of claim 12, as discussed above. The analysis of claim 12 is incorporated by reference in its entirety. "To access pan/tilt/zoom controls; first select one of the available room cameras from the buttons at the bottom of the screen. Next, direct the camera by pressing and holding a button corresponding to the direction that you want the camera to pan or tilt. For example, press and hold the **Left** button and you will observe the camera head moving from right to

	left. . . . **Zoom** and **Tilt** controls operate in the same manner." (Ex. 1003, SP3 Manual at 42 (emphasis in original); *see also id.* at 14, 19, 38, 44, 57-59; Ex. 1008, Walbrink Decl. at ¶ 57.)
Claim 17	**SP3 Manual**
17. A system as claimed in claim 12, wherein the controls include a save control for saving images.	The SP3 Manual discloses all the elements of claim 12, as discussed above. The analysis of claim 12 is incorporated by reference in its entirety. "[Users] can send a snapshot from any local camera to the participants in a video conference by using the snapshot feature on the SwitchPoint III." (Ex. 1003, SP3 Manual at 69 (emphasis added) ("**Snapshot** button"); Ex. 1008, Walbrink Decl. at ¶ 58.)
Claim 22	**SP3 Manual**
22. A system as claimed in claim 2, wherein at least one of said plurality of sources of medical imaging data comprises a processor for routing medical imaging data from a plurality of other sources to the computer simultaneously.	The SP3 Manual discloses all the elements of claim 2, as discussed above. The analysis of claim 2 is incorporated by reference in its entirety. "The Picture-in-Picture or PIP is an optional feature on the SwitchPoint III that allows you to display up to 2 **Sources** simultaneously on a single video monitor or flat panel display. In addition, this 'PIP' can be routed to a printer, VCR, SDC Pro 2 or other recording device." (Ex. 1003, SP3 Manual at 49 (emphasis in original); *see also id.* at 38, 50.) "The SwitchPoint III gives a special distinction to Devices such as the SDC Pro 2, HERMES, Printers and VCRs. These Devices are capable of receiving video signals, but their output can be rerouted to a display so that the surgeon can view what is currently being recorded on a given documentation device." (*Id.* at 46; *see also id.* at 10, 11, 20; Ex. 1008, Walbrink Decl. at ¶ 59.)
Claim 32	**SP3 Manual**
32. A system as claimed in claim 1, wherein at least one said plurality of sources of medical	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety.

imaging data comprises a camera.	(*See* Ex. 1003, SP3 Manual at 45 ("988 Camera 1," "988 Camera 2," "Wall Camera," "Boom PTZ Cam," and "In Light Cam"); *see also id.* at 11, 12, 19-27; Ex. 1008, Walbrink Decl. at ¶ 60.)
Claims 33, 37	**SP3 Manual**
(33) A system as claimed in claim 32, wherein at least one said plurality of sources of medical imaging data comprises an endoscopic camera. *(37) A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises a video endoscope.*	The SP3 Manual discloses all the elements of claims 1 and 32, as discussed above. The analyses of claims 1 and 32 are incorporated by reference in their entirety. "If a Source or Display has a hi-resolution capability, the highest resolution image will automatically be routed using the SwitchPoint III. For instance, routing a Stryker 988 endoscopic camera to a Stryker 171 flat panel display will cause the hi-resolution output of the 988 camera to be viewed on the flat panel." (Ex. 1003, SP3 Manual at 47 (emphasis added); *see also id.* at 11, 19-27, 45; Ex. 1008, Walbrink Decl. at ¶ 61.)
Claims 34, 35	**SP3 Manual**
(34) A system as claimed in claim 32, wherein at least one said plurality of sources of medical imaging data comprises a room camera. *(35) A system as claimed in claim 32, wherein at least one said plurality of sources of medical imaging data comprises a light camera.*	The SP3 Manual discloses all the elements of claim 32, as discussed above. The analysis of claim 32 is incorporated by reference in its entirety. (Ex. 1003, SP3 Manual at 45 ("Wall Camera" and "In Light Cam"); *see also id.* at 11, 12, 19-27; Ex. 1008, Walbrink Decl. at ¶ 62.)
Claims 39, 40, 41	**SP3 Manual**
(39) A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises a	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (Ex. 1003, SP3 Manual at 11 ("SDC Pro 2," "VCR,"

digital video recorder. *(40) A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises a device for storing images.* *(41) A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises an image capture device.*	and "PACS Workstation"); *see also id.* at 19-27.) "The SwitchPoint III gives a special distinction to Devices such as the SDC Pro 2, HERMES, Printers and VCRs. These Devices are capable of receiving video signals, but their output can be rerouted to a display so that the surgeon can view what is currently being recorded on a given documentation device." (*Id.* at 46; Ex. 1008, Walbrink Decl. at ¶ 63.)
Claim 42	**SP3 Manual**
42. A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises a PACS computer.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (Ex. 1003, SP3 Manual at 11 ("PACS Workstation"); *see also id.* at 29, 47, 85; Ex. 1008, Walbrink Decl. at ¶ 64.)
Claim 43	**SP3 Manual**
43. A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises a control computer that centrally controls a plurality of devices.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. "The SwitchPoint III has four video Device input/output pairs. When connected to a Device, the SwitchPoint III will route the camera signal selected as the source to the Device input and receive the output signal for further routing to a monitor (if selected). The available Devices are PRINTER, SDC Pro, VCR, & HERMES." (Ex. 1003, SP3 Manual at 20 (emphasis added).) "The Endosuite OR detailed in System 2 uses two endoscopic cameras, one remote room PTZ camera, a printer, a HERMES OR Control Center, a [*sic*] SDC PRO 2, a VCR, one video

	monitor and one flat panel display." (*Id.* at 21 (emphasis added); *see also id.* at 24, 45 ("HERMES"), 46, 11, 20; Ex. 1005, SDC Pro 2 Manual at 8 ("The [SDC Pro 2] system connects to existing video monitors and endoscopy systems. Image storage and digital video operations are easily controlled from the sterile field via wireless remote control . . . or by using the convenient touch screen located right on the SDC Pro 2 console."); Ex. 1008, Walbrink Decl. at ¶ 65.)
Claim 46	**SP3 Manual**
46. A system as claimed in claim 1, wherein at least one said plurality of sources of medical imaging data comprises an auxiliary input for external devices.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (Ex. 1003, SP3 Manual at 20 ("Auxiliary (AUX) video input"); 19 ("AUX 1," "AUX 2," "AUX 3," etc.); *see also id.* at 76; Ex. 1008, Walbrink Decl. at ¶ 66.)
Claims 47, 48, 50	**SP3 Manual**
(47) A system as claimed in claim 1, wherein at least one said plurality of destinations for the medical imaging data comprises a display. *(48) A system as claimed in claim 47, wherein at least one said plurality of destinations for the medical imaging data comprises a flat panel display.* *(50) A system as claimed in claim 47, wherein at least one said plurality of*	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (*See, e.g.*, Ex. 1003, SP3 Manual at 11 ("Flat Panel Displays"); *see also id.* at 45 ("Flat Panel 1," "Flat Panel 2," and "Flat Panel 3"), 19-27, 29.) "If a Display has only a hi-resolution input, such as a standard computer monitor, choose 'Hi-Res.'" (*Id.* at 86 (emphasis added); *see also id.* at 11, 19-27, 29; Ex. 1008, Walbrink Decl. at ¶ 67.)

destinations for the medical imaging data comprises a computer monitor.	
Claims 51, 52	**SP3 Manual**
(51) A system as claimed in claim 1, wherein at least one said plurality of destinations for the medical imaging data comprises a recording device. *(52) A system as claimed in claim 1, wherein at least one said plurality of destinations for the medical imaging data comprises a storage device.*	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (*See, e.g.*, Ex. 1003, SP3 Manual at 11 ("SDC Pro 2" and "VCR"); *see also id.* at 12, 49; *see also* Ex. 1005, SDC Pro 2 Manual at 21 ("Video Recording can be controlled in one of the four ways described below: . . . ."), 22 ("Image capture can be controlled in one of the four ways described below: . . . ."), 23 ("To save captured images and video recordings on a disc, do the following: . . . ."); Ex. 1008, Walbrink Decl. at ¶ 68.)
Claim 53	**SP3 Manual**
53. A system as claimed in claim 1, wherein each of the plurality of source icons comprises a virtual button.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (*See* Ex. 1003, SP3 Manual at 45; *see also id.* at 44, 46, 51, 58; Ex. 1008, Walbrink Decl. at ¶ 69.)
Claim 68	**SP3 Manual**
68. A system as claimed in claim 1, wherein said touchscreen further comprises a lighting icon for displaying a palette of lighting controls.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. "The OR Lighting Control System option on the SwitchPoint III enables touchpanel selection of room lighting presets within the OR or specialized hospital department. . . . Lighting levels are preset on the wall-mounted controller. . . . To activate Presets go to the Room Control menu on the touchpanel display." (Ex.

	1003, SP3 Manual at 52; Ex. 1008, Walbrink Decl. at ¶ 70.)
Claim 72	**SP3 Manual**
72. A system as claimed in claim 1, wherein said touchscreen further comprises a speakerphone icon for displaying controls associated with a speakerphone.	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. (*See* Ex. 1003, SP3 Manual at 63 ("Video Call," "Telephone," "Address Book"), 64; *see also id.* at 11, 13-16, 53-70.) "The SwitchPoint III includes a wireless microphone for audio recording within the Endosuite OR, as well as to communicate with remote rooms and off-site conferencing locations." (*Id.* at 15; *see also id.* at 10, 13, 15, 16, 20, 21, 28 ("Hermes Phone"); Ex. 1008, Walbrink Decl. at ¶ 71.)
Claims 73, 74	**SP3 Manual**
(73) A system as claimed in claim 1, wherein said touchscreen further comprises a videoconference button for displaying a videoconferencing interface. *(74) A system as claimed in claim 1, wherein the videoconferencing interface comprises:*	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. "Press the **'Remote Rooms'** button on the Menu Bar. This will bring up the Room Connection menu. To connect: 1. Make sure that your room is set up to send and receive video. 'Private' must be turned OFF. 2. Next, select a blue **'Off Site'** button on the Room Connection menu. 3. Press the red **Connect** button at the bottom of the screen. This will start the connection process with the Codec." (Ex. 1003, SP3 Manual at 62 (emphasis in original); *see also id.* at 11, 13, 14, 53-70; Ex. 1008, Walbrink Decl. at ¶ 72.)
a palette containing the source icons corresponding to the sources of medical imaging data from which the user can select the source of medical imaging data to be	"Once the rooms are connected, you can change the video source being routed from your room to the Off-site location. Select the **'Video Router'** menu and route a new **Source** in the same manner as before . . . ." (Ex. 1003, SP3 Manual at 62 (emphasis in original); *see also id.* at 11, 45; Ex. 1008, Walbrink Decl. at ¶ 72.)

communicated to a remote user;	
a display window for displaying medical images generated from the medical imaging data supplied by the selected source;	(*See, e.g.*, Ex. 1003, SP3 Manual at 62; *see also id.* at 56-62, 69, 70; Ex. 1008, Walbrink Decl. at ¶ 72.)
a set of controls associated with the selected source; and	"You can send a snapshot from any local camera to the participants in a video conference by using the Snapshot feature on the SwitchPoint III. To send a snapshot to meeting participants: 1. Press the **Snapshot** button on the 'Off Site' control menu. 2. Select a camera. 3. Position the camera as necessary." (Ex. 1003, SP3 Manual at 69; *see also id.* at 42-45, 51, 58, 62; Ex. 1008, Walbrink Decl. at ¶ 72.)
a set of controls associated with videoconferencing.	(*See* Ex. 1003, SP3 Manual at 62 ("Hang up," "Sides," "Disconnect from Remote Room"); *see also id.* at 11, 13, 14, 53-70; Ex. 1008, Walbrink Decl. at ¶ 72.)
Claims 76, 77	**SP3 Manual**
(76) A system as claimed in claim 1, wherein said touchscreen further includes a presets icon to allow a user to enter a presets utility. *(77) A system as claimed in claim 76, wherein the presets utility includes controls for storing a set of parameters for at least some of the selections of the user and assigning a name to the stored set of parameters.*	The SP3 Manual discloses all the elements of claim 1, as discussed above. The analysis of claim 1 is incorporated by reference in its entirety. "To save the current settings as a 'Preset', press and hold one of the marked **'Preset'** buttons for one second. . . . To rename the Preset, with the **Preset** button still highlighted, press **Clear** and the previous name will be erased. Using the on-screen keyboard, type in a new name for the surgeon or OR procedure the Preset is configured to accommodate. . . . When finished, press the **'Enter'** key to permanently save this Preset." (Ex. 1003, SP3 Manual at 41 (emphasis in original); *see also id.* at 34, 35, 38, 40, 42, 43, 58, 72; Ex. 1008, Walbrink Decl. at ¶ 73.)

B. Ground 2: Claims 3, 4, 6, 7, 9, 54, 55, 81, and 82 Are Rendered Obvious Under 35 U.S.C. § 103(a) In View Of The SP3 Manual In Combination With Howell

To the extent the Board determines that the SP3 Manual does not expressly or inherently disclose all of the limitations of claims 3, 4, 81, and 82, those limitations can also easily and obviously be found in Howell. The SP3 Manual in combination with Howell would also have rendered obvious the limitations of claims 6, 7, 9, 54, and 55.

Howell discloses a video conferencing system that includes "an interconnected control section and a video display section for controlling the distribution of generated audio and video information signals among a local [*sic*] and remote sites selectively in accordance with command signals fed to the controller by a podium speaker." (Ex. 1004, Howell at Abstract; *see also id.* at 1:27-36, claim 1.) Howell further discloses a plurality of sources of video imaging data and a plurality of destinations for the video imaging data, along with a touch screen that is used to input routing commands via source and destination icons. (*See id.* at 1:45-50, 2:5-10, 4:4-13, Figs. 1-5, claim 1.) The Howell touch screen includes "presentation" and "preview" display areas. (*Id.* at Fig. 3, 1:38-42; *see also id.* at 7:55-8:6, Fig. 5A, claim 1; Ex. 1008, Walbrink Decl. at ¶¶ 74-77.)

(i) Claims 3, 81:

As discussed in § V.A.iii above, the SP3 Manual anticipates both of these

claims. To the extent the Board determines that certain of the claimed features are not expressly or inherently disclosed in the SP3 Manual, however, they are present in Howell. As shown in Fig. 3 of Howell, the "presentation" and "preview" windows disclosed therein are centrally located on the touch screen. (*Id.* at Fig. 3; Ex. 1008, Walbrink Decl. at ¶ 78.) Based on Howell, a person of ordinary skill would have known how to place these display windows "***between***" the source and destination icons, as recited by claims 3 and 81. (*See* Ex. 1008, Walbrink at ¶ 78.)

It would have been obvious to one of ordinary skill in the art at the time of the alleged invention of the '420 patent to include the centrally placed display windows of Howell on the SP3 touch screen. (*See id.* at ¶¶ 79-82.) In particular, Howell includes the following teaching, suggestion or motivation to do so: "[I]cons, each representing one of the video sources, are disposed in the display section for easy actuation by the podium speaker to select the video source for the 'presentation' area and 'preview' areas." (Ex. 1104, Howell at 2:5-9.) Howell thus suggests that placing the display window near at least the source icons would enable a user to easily associate the displayed images with the currently selected source. (*Id.* at ¶ 79.) Similarly, placing the display windows between the source and destination icons, as recited by claims 3 and 81 of the '420 patent, would enable a user to associate the displayed images with the currently selected route. (*See id.*) A person of ordinary skill would know how to rewrite the relevant

software of the SP3 system to move the display window to a particular location on the touch screen, which would be a trivial change to implement. (*See id.* at ¶ 80.) Importantly, the placement of the display window and/or displayed images on the SP3 touch screen would be entirely a design choice that would serve no technical function whatsoever. (*See id.*) One of ordinary skill in the art would have known how to locate the display window anywhere on the screen, simply by making trivial changes to the system software. (*See id.*)

The combination of the display window of Howell with the system disclosed in the SP3 Manual would also have been obvious because it involves only the predictable use of prior art elements according to their established functions. (*See id.* at ¶ 81.) Howell shows that, at the time of the alleged invention of the '420 patent, it was already known to include a centrally located display window on the touch screen of a video router system. (*See id.*) As described above, a person of ordinary skill would have known how to write the necessary software to position a display window anywhere he/she chose on the SP3 touch screen. (*See id.*) Petitioner is not aware of any secondary considerations that would tend to show that this combination is non-obviousness—particularly any secondary considerations having a nexus to the claimed inventions. (*See id.* at ¶ 83.)

(ii) Claims 4, 82:

As discussed in § V.A.iv above, the SP3 Manual anticipates both of these

claims. To the extent that the Board determines that certain of the claimed features are not expressly or inherently disclosed in the SP3 Manual, however, they are present in Howell. Howell teaches that, when touched, the various source icons on the touch screen (such as the slides icon, VCR icon, Document Camera icon, etc.), which are located directly beneath the "preview" and "presentation" display windows, become highlighted. (Ex. 1004, Howell at 11:56-61, 15:10-15, 15:23-28, 15:38-43, 15:48-53, 15:66-16:5.) The highlighting of these source icons serves as a "***source indicator located adjacent to the display window* [or *displayed medical images*], *wherein the source indicator corresponds to the selected source***," as recited by claim 4. (*See* Ex. 1008, Walbrink Decl. at ¶ 84.) With respect to claim 82, Howell discloses software that enables the touch screen to have the functionality described herein. (*See id.*) Like the touch panel of the SP3 Manual, the Howell touch panel displays icons that are generated and rendered by software. (*See id.*) Software is also responsible for the highlighting of the graphical icons of Howell. (*See id.*)

Therefore, the SP3 Manual and Howell both disclose source indicators, and the source indicators of Howell are "*adjacent to the display window* [or *displayed medical images*]," as claimed in the '420 patent. (*See id.* at ¶ 85.) The combination of source indicators located adjacent to the display window, as disclosed in Howell, with the system disclosed in the SP3 Manual would have been

obvious because it involves only the predictable use of prior art elements according to their established functions. (*See id.* at ¶ 86.) Both Howell and the SP3 Manual show that, at the time of the alleged invention of the '420 patent, it was already known to use various types of indicia on the touch screen of a video router system to signify which of a plurality of available sources was currently being displayed or routed, such as by highlighting the source icon on the touch screen corresponding to the selected source. (*See id.*) Howell discloses placing the source indicators adjacent to the display window, although the placement of the source indicators on the touch panel serves no technical function whatsoever and merely represents one of many possible design choices. (*See id.*) A person of ordinary skill would have been able to easily place the source indicators disclosed in the SP3 Manual (i.e., the highlighted source icons) anywhere on the touch screen disclosed therein, including adjacent to the display window, simply by rewriting the relevant portion of the system software code—a trivial change. (*See id.*)

Howell also provides the following a teaching, suggestion or motivation that would lead a person of ordinary skill to include source indicators located adjacent to the display windows or displayed medical images of the SP3 system: "[O]nly one of video source icon 86, 88, 92, 94, 96 in each one of the regions 64_1, 64_2 can be activated (highlighted), (i.e., one video source icon at one time under the 'preview' display area 62 and one video source icon at one time under the

'presentation' display area 60)." (Ex. 1004, Howell at 16:9-14; *see also id.* at Figs. 3, 5A-E.) Howell therefore suggests that placing the source indicator adjacent to the display window creates an association between the source indicator and the imaging data currently being displayed. (Ex. 1008, Walbrink Decl. at ¶ 87.) A person of ordinary skill would have had to make only trivial software changes to relocate the source indicators of the SP3 Manual adjacent to the display window, as disclosed in Howell. (*See id.*) There would be no reason why a person of ordinary skill would not expect this to work. (*See id.*) Petitioner is not aware of any secondary considerations that would tend to show that this combination is non-obviousness—particularly any secondary considerations having a nexus to the claimed inventions. (*See id.* at ¶ 89.)

(iii) Claims 6, 7, 54, 55:

The combination of the SP3 Manual and Howell also renders obvious the additional limitations of claims 6, 7, 54 and 55. Claims 6 and 54 recite that the source indicators and virtual buttons, respectively, comprise "***a graphic corresponding to the selected source***," while claims 7 and 55 recite that those graphics comprise "***a graphical representation of the selected source***."

Howell explains that "the 'VCR' Control' icon 92 is a symbol of a video tape under the 'preview' and 'presentation' display areas 60, 62 and represents the VCR video source." (Ex. 1004, Howell at 15:23-26; *see also id.* at 10:29-32 ("The

'Transfer' icon 83 is . . . designed in the shape of an arrow that indicates the direction of image transfer, i.e., from left to right."); claim 10 ("source icons representative of the plurality of different . . . video sources".) The "VCR Control" is an example of both "***a graphic***" that corresponds to the VCR video source and "***a graphical representation***" of the VCR video source because it looks like a video tape. The same is true for the remaining source icons shown in Fig. 3 below (i.e., the "PC Storage" icon 94 features a floppy disk graphic and the "Document Camera" icon 90 features a paper graphic):

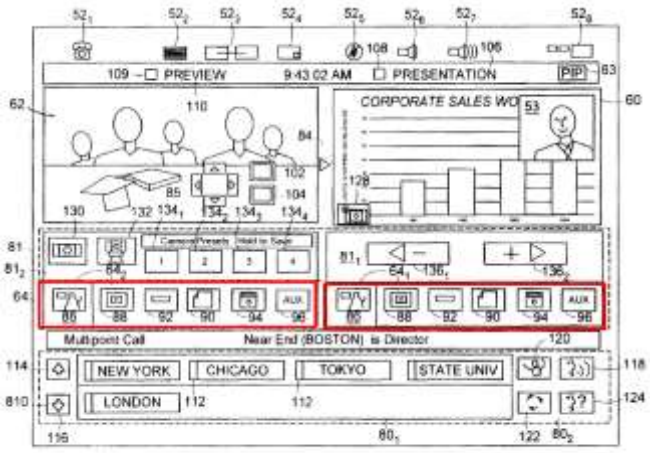


FIG. 3

(*Id.* at Fig. 3 (annotated); Ex. 1008, Walbrink Decl. at ¶ 90.)

It would have been obvious to one of ordinary skill in the art at the time of the alleged invention of the '420 patent to combine the source indicators and/or source icons of the SP3 Manual with the graphics and graphical representations of sources disclosed in Howell. (Ex. 1008, Walbrink Decl. at ¶¶ 91-92.) Howell, like the SP3 Manual, discloses a system that enables multiple sources of video imaging

data to be routed and controlled from a centralized touchscreen. (*See id.*) One of ordinary skill in the art would have recognized that providing graphical source indicators and icons would enable surgeons to quickly and accurately identify sources of medical imaging data while having to divert their attention from the patient only momentarily. (*See id.*) That is, the use of graphics and graphical representations of sources was an apparent and obvious way to convey important video routing information to surgeons in an easily comprehensible, accurate, and user-friendly manner. (*See id*.)

Howell also includes the following teaching, suggestion, or motivation that would lead a person of ordinary skill in the art to include graphics and graphical representations of sources on the source indicators and/or source icons of the SP3 Manual: "[T]he 'VCR' Control' icon 92 is a symbol of a video tape . . . and represents the VCR video source." (Ex. 1004, Howell at 15:23-26.) Howell similarly teaches that the Storage "PC Storage" icon includes a "symbol of a diskette," and the "Document Camera" icon features a graphic of a piece of paper. (*See id.* at 15:48-51, Fig. 3.) One of the goals of Howell is to provide "a more effective, more user friendly video conferencing system." (*Id.* at 2:3-4.) Howell thus suggests that including graphics or graphical representations of sources on the source icons enables users to quickly and easily identify which icon corresponds to a particular source. (Ex. 1008, Walbrink Decl. at ¶¶ 93-94.) A person of ordinary

skill would have had to make only trivial software changes in order to include such graphics and graphical representations on the source indicators and/or source icons of the SP3 Manual. (*See id.*)

The combination of the graphics and graphical representations disclosed in Howell with the source indicators and/or source icons of the SP3 system would also have been obvious at the time of the alleged invention of the '420 patent because it involves only the predictable use of prior art elements according to their established functions. (*See id.* at ¶ 95.) Howell shows that, prior to the alleged invention of the '420 patent, it was already known to use graphics and graphical representations of sources on icons corresponding to those sources. (*See id.*) The appearance of the source indicators and/or source icons on the touch panel of the SP3 system serves no technical function whatsoever and merely represents one of many possible a design choices. (*See id.*) A person of ordinary skill would have been able to easily place the graphics and graphical representations disclosed in Howell on the source indicators and/or source icons of the SP3 Manual simply by rewriting the software that rendered those indicators and icons—a trivial change. (*See id.*) Petitioner is not aware of any secondary considerations that would tend to show that this combination is non-obviousness—particularly any secondary considerations having a nexus to the claimed inventions. (*See id.* at ¶ 97.)

(iv) Claim 9:

The combination of the SP3 Manual and Howell also renders obvious the additional limitation of claim 9, which is the use of "***text describing the selected source adjacent to the source indicator***." Because claim 9 ultimately depends from claims 6 and 4, the SP3 Manual in combination with the disclosure of Howell pertaining to claims 6 and 4 renders obvious claim 9.

As discussed above, the SP3 Manual discloses that source icons become highlighted in white when selected by a user, which serves as a "*source indicator*." (Ex. 1003, SP3 Manual at 46.) The SP3 Manual further discloses that each source icon includes text identifying the source by name. (*See id.* at 45.) The SP3 Manual thus discloses "*text describing the selected source adjacent to the source indicator*," because the source indicator is the highlighting of the source icon, and the source icon also includes text identifying the selected source on it. (Ex. 1008, Walbrink Decl. at ¶ 98.)

At the time of the alleged invention of the '420 patent, a person of ordinary skill would have recognized that using text along with source indicators and graphics would enable users of the SP3 system to quickly and accurately identify a particular source. (Ex. 1008, Walbrink Decl. at ¶¶ 99-100.) The graphics would provide a first form of identification, and the text identifying the source would serve as a complementary, secondary form of identification to ensure accuracy.

(*See id.*) This would be especially useful if multiple sources shared the same graphic and could only be distinguished by their text identifiers. (*See id.*)

The combination of text describing the selected source, as disclosed in the SP3 Manual, with the source indicators and graphics disclosed in Howell would also have been obvious at the time of the alleged invention of the '420 patent because it involves only the predictable use of prior art elements according to their established functions. (*See id.* at ¶ 101.) The SP3 Manual shows that, at the time of the alleged invention of the '420 patent, it was already known to use text to describe the sources in video router systems. (*See id.*) Howell shows that, at the time of the alleged invention of the '420 patent, it was already known to use source indicators located adjacent to display windows, as well as source indicators comprising graphics corresponding to the selected source. (*See id.*) The inclusion of text describing the selected source adjacent to the source indicators, as well as the appearance of the source indicators, themselves, serve no technical function whatsoever and merely represent design choices. (*See id.*) A person of ordinary skill in the art would have easily been able to change the appearance and placement of the source indicators disclosed in the SP3 Manual to satisfy the claims of the '420 patent simply by rewriting the software that rendered the source indicators on the touch screen—a trivial change. (*See id.*) Petitioner is not aware of any secondary considerations that would tend to show that this combination is

non-obviousness—particularly any secondary considerations having a nexus to the claimed invention. (*See id.* at ¶ 103.)

Claim Charts. The below claim chart contains detailed citation to disclosure in the SP3 Manual and Howell, the combination of which renders obvious claims 3, 4, 6-9, 54, 55, 81, and 82 of the '420 patent. Due to substantial overlap, certain claims are addressed together below.

Claims 3, 81	**SP3 Manual in Combination with Howell**
(3) A system as claimed in claim 2, wherein the display window is located between the plurality of source icons and the plurality of destination icons. *(81) A system as claimed in claim 80, wherein the medical images are displayed between the plurality of source icons and the plurality of destination icons.*	The SP3 Manual discloses all the elements of claims 2 and 80, as discussed above. The analyses of claims 2 and 80 are incorporated by reference in their entirety. *See above* at claims 3 and 81 (§ V.A.iii) for a description of the relevant disclosure in the SP3 Manual. That analysis is incorporated by reference in its entirety. "In the 'Main-screen' mode, the video display section is made up of two display areas: a 'presentation' display area, and a 'preview' display area. . . ." (*Id.* at 1:38-42, Fig. 3; *see also id.* at Abstract, 1:27-36, 1:45-50, 5:65-6:56, 7:55-8:6, Fig. 5A, claim 1.) "[I]cons, each representing one of the video sources, are disposed in the display section for easy actuation by the podium speaker to select the video source for the 'presentation' area and 'preview' areas." (*Id.* at 2:5-10; Ex. 1008, Walbrink Decl. at ¶¶ 78-83.)
Claims 4, 82	**SP3 Manual in Combination with Howell**
(4) A system as claimed in claim 2, wherein said touchscreen further comprises a source indicator located adjacent to the display window, wherein the source indicator	The SP3 Manual discloses all the elements of claims 2 and 80, as discussed above. The analyses of claims 2 and 80 are incorporated by reference in their entirety. *See above* at claims 4 and 82 (§ V.A.iv) for a description of the relevant disclosure in the SP3 Manual. That analysis is incorporated by reference in its entirety.

corresponds to the selected source. *(82) A system as claimed in claim 80, further comprising software executing on said computer for displaying on said touchscreen a source indicator located adjacent to the displayed medical images, wherein the source indicator corresponds to the selected source.*	"For each site icon in the site selection region 80_1, a highlight box 112 is located immediately to its left. The site that is being viewed in the 'preview' display area 62 is highlighted in box 112 in a darker blue and a site being viewed in the 'presentation' display area 60 is highlighted in box 112 in a darker magenta." (Ex. 1004, Howell at 11:56-61.) "Referring now also to FIG. 5B, if the 'Slide Projector' camera 66 is selected by touching a 35 mm slide icon 88 under the 'preview' or 'presentation' display areas 60, 62, the icon 88 will be highlighted and the slide projection camera 66 output will be displayed in the appropriate 'preview' or 'presentation' display area 60, 62." (*Id.* at 15:10-15; *see also id.* at 15:23-28, 15:38-43, 15:48-53, 15:66-16:5, 16:9-14, Figs. 3, 5A-E; Ex. 1008, Walbrink Decl. at ¶¶ 84-89.)
Claims 6, 7, 54, 55	**SP3 Manual in Combination with Howell**
(6) A system as claimed in claim 4, wherein the source indicator comprises a graphic corresponding to the selected source. *(7) A system as claimed in claim 6, wherein the graphic comprises a graphical representation of the selected source.* *(54) A system as claimed in claim 53, wherein the virtual button includes a graphic corresponding to the selected source.* *(55) A system as claimed in claim 54, wherein the graphic comprises a graphical representation*	The SP3 Manual, either alone or in combination with Howell, discloses all the elements of claims 4 and 53, as discussed above. The analyses of claims 4 and 53 are incorporated by reference in their entirety. "[T]he 'VCR' Control' icon 92 is a symbol of a video tape under the 'preview' and 'presentation' display areas 60, 62 and represents the VCR video source." (Ex. 1004, Howell at 15:23-26 (emphasis added); *see also id.* at 10:29-32, Fig. 3 ("PC storage" 94; "Document Camera" 90).) "[A] video conferencing system . . . wherein each one of the preview and presentation areas have a corresponding video source selection area for displaying source icons representative of the plurality of different . . . video sources." (*Id.* at claim 10 (emphasis added); Ex. 1008, Walbrink Decl. at ¶¶ 90-97.)

of the selected source.	
Claim 9	**SP3 Manual in Combination with Howell**
9. A system as claimed in claim 6, wherein said touchscreen further comprises text describing the selected source adjacent to the source indicator.	The SP3 Manual, either alone or in combination with Howell, discloses all the elements of claim 6, as discussed above. The analysis of claim 6 is incorporated by reference in its entirety. (Ex. 1003, SP3 Manual at 46 ("[S]elect a blue **'Source'** button corresponding to a video input you want to record or view. The button will highlight in white." (emphasis in original)); Ex. 1008, Walbrink Decl. at ¶¶ 98-103.)

VI. REASONS WHY PROPOSED GROUNDS ARE NON-REDUNDANT

Petitioner respectfully submits that each of the above-proposed grounds is non-redundant. The SP3 Manual is the only reference for which Petitioner offers an anticipation ground in this Petition, and Howell is the only reference for which Petitioner offers obviousness rationales for dependent claims 3, 4, 6, 7, 9, 54, 55, 81, and 82. Further, each ground in this Petition is non-redundant with a second petition filed concurrently by Petitioner asserting invalidity of the same claims. That petition raises alternative anticipation and obviousness grounds based on a different primary reference that is non-redundant.

VII. CONCLUSION

For the above reasons, Petitioner respectfully requests institution of *inter partes* review of claims 1-4, 6-7, 9-10, 12-14, 17, 22, 32-35, 37, 39-43, 46-48, 50-55, 57, 68, 72-74, 76-77, and 79-83 of the '420 patent.

Respectfully submitted,

Dated: February 18, 2015

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CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 8,069,420 and Exhibits 1001-1013 were served on February 18, 2015 by Federal Express on the following attorney of record listed on PAIR:

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