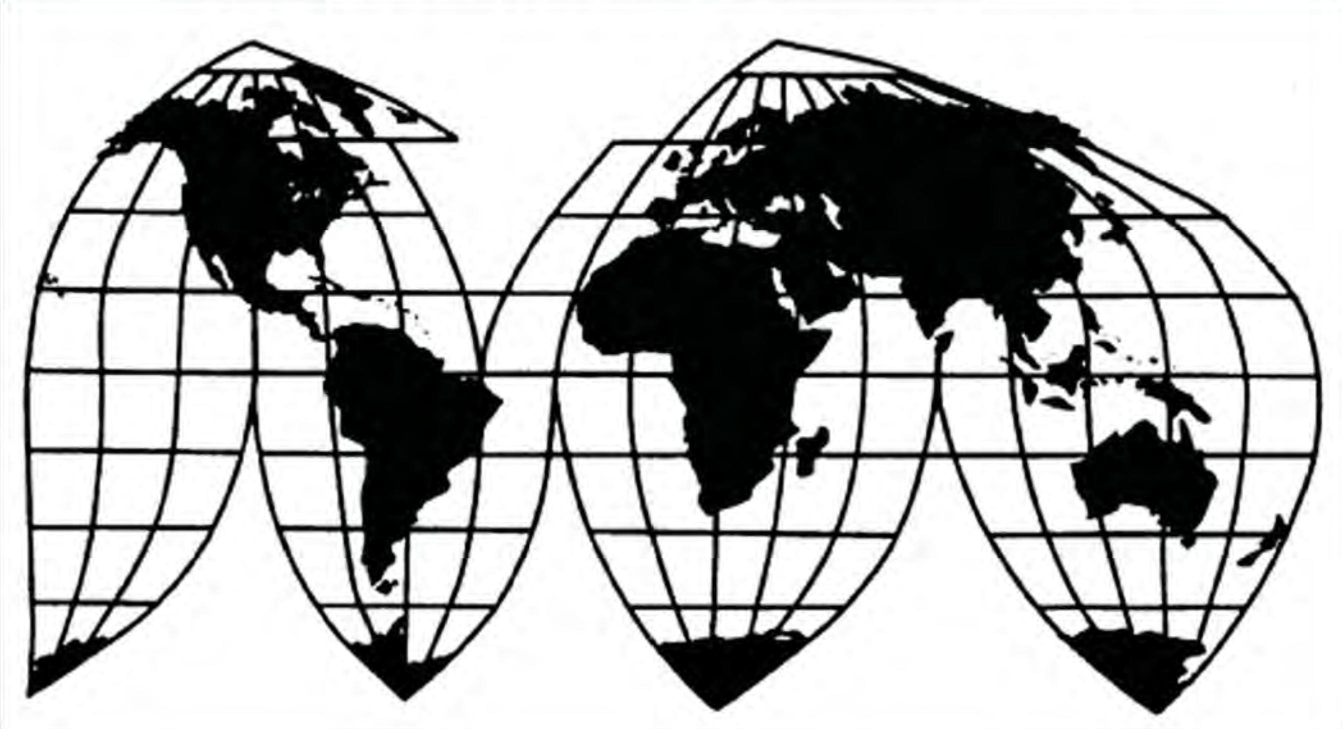
In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

337-TA-850

Publication 4846 **November 2018**

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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U.S. International Trade Commission

Washington, DC 20436
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In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

337-TA-850

Publication 4846

November 2018

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

[CORRECTED]

In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

Investigation No. 337-TA-850

CORRECTED NOTICE OF COMMISSION DETERMINATION TO REVERSE THE FINDING OF VIOLATION OF SECTION 337; TERMINATION OF THE INVESTIGATION

AGENCY: U.S. International Trade Commission.

ACTION: Correction of Notice of Commission Determination.

SUMMARY: Correction is made in accordance with the amended notice of investigation. The notice of investigation was amended to substitute Huawei Device Co., Ltd. of Shenzhen, China and Huawei Device USA Inc. of Plano, Texas for the Huawei Technologies Co., Ltd. of Shenzhen, China and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) of Plano, Texas. 77 *Fed. Reg.*55498.

By order of the Commission.

Lisa Barton
Secretary to the Commission

Issued: March 26, 2014

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **March 26, 2014.**

Lisa R. Barton, Acting Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

On Behalf of Complainant FlashPoint Technology, Inc.:

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

Investigation No. 337-TA-850

NOTICE OF COMMISSION DETERMINATION TO REVERSE THE FINDING OF VIOLATION OF SECTION 337; TERMINATION OF THE INVESTIGATION

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to reverse the final initial determination ("ID") issued by the presiding administrative law judge ("ALJ") on September 30, 2013, finding a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 ("Section 337") in the above-captioned investigation. The Commission finds no violation of Section 337. The investigation is terminated.

FOR FURTHER INFORMATION CONTACT: Jia Chen, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-4737. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on June 29, 2012, based on a complaint filed by Flashpoint Technology, Inc. ("Flashpoint") of Peterborough, New Hampshire, alleging violation of Section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain electronic imaging devices by reason of infringement of certain claims of U.S. Patent Nos. 6,504,575 ("the '575 patent"), 6,222,538 ("the '538 patent"), 6,400,471 ("the '471 patent"), and 6,223,190 ("the '190 patent"). The notice of investigation named the following respondents: HTC Corporation of Taoyuan, Taiwan and HTC America, Inc. of Bellevue, Washington (collectively, "HTC"); Pantech Co., Ltd. of Seoul, Republic of Korea and Pantech Wireless, Inc. of Atlanta, Georgia (collectively, "Pantech"); Huawei Technologies Co., Ltd. of Shenzhen, China and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) of Plano, Texas (collectively "Huawei"); and ZTE Corporation of Shenzhen, China and ZTE (USA) Inc. of Richardson, Texas (collectively "ZTE"). The '575 patent and respondent Pantech have been terminated from the investigation. The Commission Office of Unfair Import Investigations did not participate in this investigation.

On September 30, 2013, the ALJ issued a final ID finding a violation of Section 337 by HTC. Specifically, the ALJ concluded that two of the accused HTC smartphones, *i.e.*, the HTC Vivid and HTC Droid Incredible 4G LTE, infringe the asserted claims of the '538 patent. The ALJ found, however, that none of the other accused HTC smartphones infringes the asserted claims of the '538 patent and that none of the accused HTC, Huawei, or ZTE smartphones infringes the asserted claims of the '471 patent or the '190 patent. The ALJ found that the smartphones of Flashpoint's licensees Apple Inc. ("Apple") and Motorola Mobility Holdings, Inc. ("Motorola") meet the technical prong of the domestic industry requirement with respect to the '538 patent, but that none of the licensed Motorola or Apple smartphones meet the technical prong of the domestic industry requirement with respect to either the '471 or '190 patents. The ALJ found that Flashpoint established the economic prong of the domestic industry requirement under Sections 337(a)(3)(A), (B), and (C) with respect to all of the asserted patents. The ALJ also found that HTC has not established that the asserted patents are invalid in view of the prior art or the on-sale bar. The ALJ further found that the '190 and '538 patents are not unenforceable for failure to name an inventor.

On October 31, 2013, Flashpoint filed a petition for review challenging the ALJ's findings. On the same day, respondents filed a joint petition for review challenging the ALJ's findings. On the same day, HTC filed a separate petition for review challenging the ALJ's findings with respect to issues affecting only HTC. The parties submitted responses to the petitions on November 8, 2013.

On December 16, 2013, the Commission determined to review the ALJ's findings regarding the following issues: (1) infringement of the asserted claims of the '538 patent by the HTC Vivid and HTC Droid Incredible 4G LTE smartphones; (2) the technical prong of the domestic industry requirement for the '538 patent; (3) obviousness of the asserted claims of the '538 patent over U.S. Patent No. 5,835,772 to Thurlo, U.S. Patent No. 5,740,801 to Branson, the "Admitted Prior Art," U.S. Patent No. 5,638,501 to Gough *et al.*, and U.S. Patent No. 5,898,434 to Small; (4) claim construction of the term "operating system" in the asserted claims of the '471 patent; (5) infringement of the '471 patent by the accused HTC, Huawei, and ZTE products; (6) the technical prong of the domestic industry requirement for the '471 patent; (7) anticipation of the asserted claims of the '471 patent in view of U.S. Patent No. 5,687,376 to Celi, Jr. *et al.*; (8) infringement of the asserted claim of the '190 patent; (9) technical prong of the domestic industry requirement for the '190 patent; (10) anticipation and obviousness of the '190 patent in view of U.S. Provisional Patent Application 60/037,963 to Parulski ("Parulsi-963"); (11) anticipation and obviousness of the '190 patent in view of the Color Zaurus Reference ("Zaurus"); (12) anticipation and obviousness of the '190 patent in view of the Japanese Laid-Open Patent Application No. H09-298678 to Saito; (13) validity of the '538, '471, and '190 patents in view of the on-sale bar; (14) enforceability of claim 19 of the '538 patent with respect to joint inventorship; and (15) the economic prong of the domestic industry requirement with respect to the '538, '471, and '190 patents. The Commission requested briefing from the parties on fourteen (14) questions. The parties submitted their opening responses on January 3, 2014 and their reply responses on January 10, 2014.

Having examined the record of this investigation, including the ALJ's final ID, the parties' petitions for review, and the submissions of the parties on review, the Commission has determined to reverse the ALJ's determination of violation of Section 337 and to find no violation of Section 337 with respect to the asserted patents. Specifically, the Commission finds that: (1) the HTC Vivid and HTC Droid Incredible 4G LTE smartphones do not infringe the asserted claims of the '538 patent; (2) complainant has met the technical prong of the domestic industry requirement for the '538 patent; (3) respondents have not shown that the asserted claims of the '538 patent are obvious; (4) the ALJ correctly construed the term "operating system" in the asserted claims of the '471 patent, (5) the accused HTC, Huawei, and ZTE products do not infringe the asserted claims of the '471 patent; (6) complainant has not proved the technical prong of the domestic industry requirement for the '471 patent; (7) respondents have not shown that the asserted claims of the '471 patent are anticipated; (8) the accused HTC, Huawei, and ZTE products do not infringe the asserted claim of the '190 patent; (9) complainant has not proved the technical prong of the domestic industry requirement for the '190 patent; (10) respondents have not shown that the asserted claim of the '190 patent is anticipated or rendered obvious; (13) respondents have not shown that the asserted claims of the '538, '471, and '190 patents are invalid in view of the on-sale bar; (14) respondents have not shown that claim 19 of the '538 patent is unenforceable due to failure to name an inventor; and (15) complainant has proved that the economic prong of the domestic industry requirement with respect to the '538, '471, and '190 patents. The Commission has furthered determined to take no position on whether the asserted claim of the '190 patent is anticipated or rendered obvious by Parulski-963 or Zaurus. A Commission opinion will issue promptly.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 C.F.R. Part 210).

By order of the Commission.

Lisa Barton
Secretary to the Commission

Issued: March 14, 2014

CERTAIN ELECTRONIC IMAGING DEVICES **Inv. No. 337-TA-850**

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **March 14, 2014.**

Lisa R. Barton, Acting Secretary
U.S. International Trade Commission
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On Behalf of Respondents Huawei Technologies Co., Ltd. and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA):

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On Behalf of Respondents ZTE Corporation and ZTE (USA) Inc.:

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PUBLIC

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

Investigation No. 337-TA-850

COMMISSION OPINION

On September 30, 2013, the presiding administrative law judge ("ALJ") (Judge Essex) issued a final initial determination ("ID") finding a violation of Section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337 ("Section 337"), by respondents HTC Corporation of Taoyuan, Taiwan and HTC America, Inc. of Bellevue, Washington (collectively, "HTC") with respect to U.S. Patent No. 6,222,538 ("the '538 patent"), but finding no violation with respect to U.S. Patent Nos. 6,400,471 ("the '471 patent") and 6,223,190 ("the '190 patent").

On review, the Commission has determined to reverse the ALJ's determination of violation of Section 337 and to find no violation of Section 337 with respect to any of the asserted patents. Specifically, the Commission finds that: (1) the HTC Vivid and HTC Droid Incredible 4G LTE smartphones do not infringe the asserted claims of the '538 patent; (2) complainant has met the technical prong of the domestic industry requirement for the '538 patent; (3) respondents have not shown that the asserted claims of the '538 patent are obvious over U.S. Patent No. 5,835,772 to Thurlo ("Thurlo"), U.S. Patent No. 5,740,801 to Branson ("Branson"), the "Admitted Prior Art" ("APA"), U.S. Patent No. 5,638,501 to Gough *et al.* ("Gough"), and U.S. Patent No. 5,898,434 to Small ("Small"); (4) the ALJ correctly construed the term "operating system" in the asserted claims of the '471 patent, (5) the accused HTC, Huawei, and ZTE products do not infringe the asserted claims of the '471 patent; (6)

complainant has not proved the technical prong of the domestic industry requirement for the '471 patent; (7) respondents have not shown that the asserted claims of the '471 patent are anticipated by U.S. Patent No. 5,687,376 to Celi, Jr. *et al.* ("Celi"); (8) the accused HTC, Huawei, and ZTE products do not infringe the asserted claim of the '190 patent; (9) complainant has not proved the technical prong of the domestic industry requirement for the '190 patent; (10) respondents have not shown that the asserted claim of the '190 patent is anticipated or rendered obvious by Japanese Laid-Open Patent Application No. H09-298678 to Kazu Saito ("Saito"); (13) respondents have not shown that the asserted claims of the '538, '471, and '190 patents are invalid in view of the on-sale bar; (14) respondents have not shown that claim 19 of the '538 patent is unenforceable due to failure to name an inventor; and (15) complainant has proved that the economic prong of the domestic industry requirement with respect to the '539, '471, and '190 patents. The Commission has further determined to take no position on whether the asserted claim of the '190 patent is anticipated or rendered obvious by U.S. Provisional Patent Application 60/037,963 to Parulski ("Parulski-963") or the Color Zaurus Reference ("Zaurus"). The Commission has determined to adopt the ALJ's findings that are consistent with the Commission's opinion.

I. Background

The Commission instituted this investigation on June 29, 2012, based on a complaint filed by Flashpoint Technology, Inc. ("Flashpoint") of Peterborough, New Hampshire alleging violations of Section 337 by reason of infringement of certain claims of U.S. Patent Nos. 6,504,575 ("the '575 patent"), the '538 patent, the '471 patent, and the '190 patent. The notice of investigation named the following respondents: HTC; Pantech Co., Ltd. of Seoul, Republic of Korea and Pantech Wireless, Inc. of Atlanta, Georgia (collectively, "Pantech"); Huawei Technologies Co., Ltd. of Shenzhen, China and FutureWei Technologies, Inc. d/b/a Huawei

Technologies (USA) of Plano, Texas (collectively "Huawei"); and ZTE Corporation of Shenzhen, China and ZTE (USA) Inc. of Richardson, Texas (collectively "ZTE"). The '575 patent and respondent Pantech have been terminated from the investigation. The Commission Office of Unfair Import Investigations did not participate in this investigation. The accused products for the '538 patent are certain HTC smartphones and the accused products for the '471 and '190 patents are certain HTC, Huawei, and ZTE smartphones.

On July 30, 2013, the ALJ issued a final initial determination ("ID") finding a violation of Section 337 by HTC. Specifically, the ALJ concluded that two of the accused HTC smartphones, *i.e.*, the HTC Vivid and HTC Droid Incredible 4G LTE, infringe the asserted claims of the '538 patent. The ALJ found that none of the other accused HTC smartphones infringe the '538 patent and that none of the accused smartphones infringe the asserted claims of the '471 patent and the '190 patent. The ALJ found that the smartphones of Flashpoint's licensees Apple Inc. ("Apple") and Motorola Mobility Holdings, Inc. ("Motorola") meet the technical prong of the domestic industry requirement with respect to the '538 patent, but that none of the licensed Motorola or Apple smartphones meet the technical prong of the domestic industry requirement with respect to either the '471 or '190 patents. The ALJ found that an economic domestic industry exists under Sections 337(a)(3)(A), (B), and (C). The ALJ also found that HTC has not established that the patents-in-suit are invalid for obviousness in view of the asserted prior art or pursuant to the on-sale bar. Lastly, the ALJ further found that the '190 and '538 patents are not unenforceable for failure to name an inventor.

On October 31, 2013, Flashpoint filed a petition for review, challenging the ALJ's determination with respect to: (1) the representativeness of the accused products for the '538 patent; (2) claim construction for the '471 patent; (3) non-infringement of the '471 patent, (4) non-infringement of the '190 patent; (5) technical prong for the '471 patent; and (6) technical prong for the '190 patent.

On the same day, all respondents HTC, Huawei, and ZTE ("respondents") filed a joint petition for review, challenging the ALJ's determination with respect to: (1) non-infringement of the '190 patent; (2) validity of the '190 patent for anticipation and obviousness; (3) validity of the '470 patent for anticipation and obviousness; (4) technical prong for the '190 patent; and (5) economic prong with respect to all asserted patents.

On the same day, respondent HTC filed a separate petition for review with respect to issues affecting only HTC, challenging the ALJ's determination with respect to: (1) claim construction for the '538 patent; (2) infringement of the '538 patent; (3) validity of the '538 patent for anticipation and obviousness; (4) validity of the asserted patents with respect to the on-sale bar, and (5) enforceability of the asserted patents. HTC also argued separate grounds for affirming the ALJ's non-infringement finding with respect to the '471 patent.

On November 8, 2013, Flashpoint filed a combined reply to HTC's petition for review and respondents' petition review. On the same day, respondents filed a single reply to Flashpoint's petition for review.

On December 16, 2013, the Commission determined to review the ALJ's findings regarding the following issues: (1) infringement of the asserted claims of the '538 patent by the HTC Vivid and HTC Droid Incredible 4G LTE smartphones; (2) the technical prong of the domestic industry requirement for the '538 patent; (3) obviousness of the asserted claims of the '538 patent over Thurlo, Branson, the APA, Gough, and Small; (4) claim construction of the term "operating system" in the asserted claims of the '471 patent; (5) infringement of the '471 patent by the accused HTC, Huawei, and ZTE products; (6) the technical prong of the domestic industry requirement for the '471 patent; (7) anticipation of the asserted claims of the '471 patent in view of Celi; (8) infringement of the asserted claim of the '190 patent; (9) technical prong of the domestic industry requirement for the '190 patent; (10) anticipation and obviousness of the '190 patent in view of Parulski-963; (11) anticipation and obviousness of the '190 patent in view of Zaurus; (12) anticipation and obviousness of the '190 patent in view of Saito; (13) validity of the '538, '471, and '190 patents in view of the on-sale bar; (14) enforceability of claim 19 of the '538 patent with respect to joint inventorship; and (15) the economic prong of the domestic industry requirement with respect to the '538, '471, and '190 patents. The Commission determined not to review any of the remaining issues. 78 *Fed. Reg.* 77490. The Commission requested briefing from the parties on fourteen questions, as well as the public interest.

The parties filed responses on January 3, 2013 and reply responses on January 10, 2013. In addition, public interest statements were submitted by the following third parties: (1) CTIA – The Wireless Association, (2) Public Knowledge, (3) Sprint Spectrum, L.P., and (4) T-Mobile USA, Inc.

II. ANALYSIS

A. The '538 Patent

1. The Invention of the '538 Patent

The '538 patent, entitled "Directing Image Capture Sequences in a Digital Imaging Device Using Scripts," issued on April 24, 2001 to Eric Anderson *et al.* JX-6. The patent underwent *ex parte* reexamination by the U.S. Patent and Trademark Office ("PTO"), and the reexamination certificate issued on January 18, 2011. The patented invention is directed to a method and system for controlling user interaction in a camera display screen. Specifically, the invention is directed to a software feature that displays interactive instructions and feedback on the camera's LCD screen while the user is capturing a series of related images. The interactive instructions and feedback are displayed in the form of an overlay bar on the screen and guides the user through the series of related image-captures.

For example, the invention may take the form of an image capture feature used by insurance claims adjusters. Fig. 9A shows a "directed image capture" feature that prompts an insurance claim adjuster to take a series of pictures of a damaged vehicle:

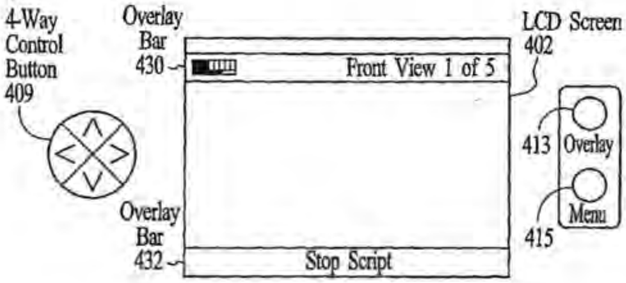
4-Way Control Button 409
Overlay Bar 430
Front View 1 of 5
LCD Screen 402
413
Overlay
Menu
415
Overlay Bar 432
Stop Script

FIG. 9A

Once the directed image capture feature has started, the user may be instructed to take various views of the damaged car. The user may be shown the number of the current image in that sequence and the total number of images to be captured. After the views of the car are taken, the directed image capture feature may then prompt the user to enter specific information, such as the name of the image, as shown in Figure 9B:

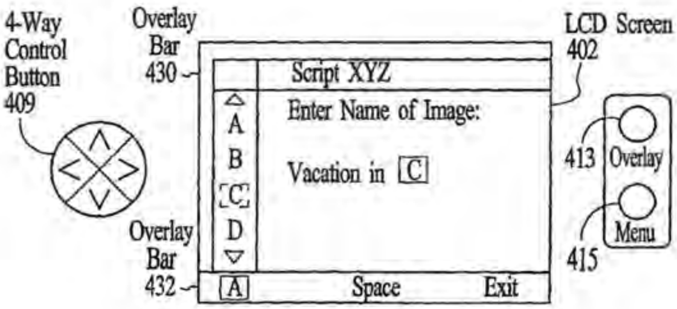
4-Way Control Button 409
Overlay Bar 430
Script XYZ
Enter Name of Image:
A
B
[C]
D
Vacation in [C]
LCD Screen 402
413
Overlay
Menu
415
Overlay Bar 432
[A]
Space
Exit

FIG. 9B

The directed image capture feature may also request the user to input the owner's name, license plate number, claim number, and so on. The sequence of images and corresponding information may then be downloaded from the camera or to a host computer.

The patent refers to the software that carries out the direct image capture feature as the "directed image capture sequence," which is a set of program instructions that may be externally loaded into the camera's memory. The instructions may be implemented using a script (*i.e.*, a program written with text-based commands that may be easily written by the user), or the instructions may be implemented as a traditional application program written by a software developer in a traditional computer language, such as C++.

The asserted claims of the '538 patent (independent claims 1 and 19) recite:

> 1. A method for controlling user interaction in a hand-held digital camera, the hand-held digital camera having an integrated display, the method comprising the steps of:
>
> > a) storing a directed image capture sequence comprising a set of program instructions in the hand-held digital camera;
> >
> > b) executing the directed image capture sequence in the hand-held digital camera to display interactive instructions on the integrated display that prompt the user to perform a first operation; and
> >
> > c) in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures, while minimizing the number of key sequences the user must memorize in order to perform the operations,
> >
> > wherein the interactive instructions are displayed in the form of an overlay bar that is on the integrated display, and the interactive instructions are updated by updating the overlay bar.
>
> 19. A method for controlling user interaction in a handheld digital camera, the hand-held digital camera having an integrated display, the method comprising the steps of

> a) storing a directed image capture sequence comprising a set of program instructions in the hand-held digital camera;
>
> b) executing the directed image capture sequence in the hand-held digital camera to display interactive instructions on the integrated display that prompt the user to perform a first operation;
>
> c) in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures, while minimizing the number of key sequences the user must memorize in order to perform the operations; and
>
> d) displaying a first translucent overlay bar in the integrated display.

'538 patent (JX-6), claims 1 and 19.

2. Induced Infringement

Because the ALJ's finding of violation with respect to the '538 patent turns on induced infringement, we address the issue prior to addressing direct infringement. "Whoever actively induces infringement of a patent shall be liable as an infringer." *See* 35 U.S.C. § 271(c). A patentee asserting a claim of inducement must show (i) that there has been direct infringement and (ii) that the alleged infringer "knowingly induced infringement and possessed specific intent to encourage another's infringement." *Minnesota Mining & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1304-05 (Fed. Cir. 2002). Inducement requires evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities. *DSU Medical Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc).

The ALJ found that Flashpoint has shown intent to induce infringement and direct acts of infringement with respect to the HTC Vivid and the HTC Incredible 4G LTE ("HTC

Incredible").[1] *Id.* at 108-111. Specifically, the ALJ found that Flashpoint's post-hearing opening brief contained only the most skeletal discussion of the intent requirement for induced infringement, and that not until its reply brief did Flashpoint argue that HTC had knowledge of the '538 patent since 2009 when Flashpoint filed an action in the U.S. District Court for the District of Delaware. *Id.* at 110. Nevertheless, the ALJ found that Flashpoint had just barely shown that HTC intended to induce infringement regarding the HTC Vivid and the HTC Incredible. *Id.* at 110-11. According to the ALJ, the 2009 Delaware litigation contained infringement allegations of the '538 patent, and thus HTC had knowledge of the '538 patent as of the filing of the complaint in that matter. *Id.* According to the ALJ, Flashpoint has shown intent to induce with respect to the HTC Vivid and Incredible, stating simply that "Flashpoint has offered evidence of instructions." *Id.* at 111.

The ALJ also found that Flashpoint has offered sufficient evidence of acts of direct infringement, *i.e.*, someone performed the claimed methods. *Id.* at 112. The ALJ found the following evidence to be pertinent: (1) HTC's stipulation to the use and testing of the Panorama functionalities in the United States; (2) instructions for using the accused functionalities in the HTC Vivid and Incredible User Guides; (3) evidence of extensive sales of the HTC Vivid; and (4) Flashpoint's expert witness statement that the expert himself performed the infringing method using the HTC Vivid and Incredible. *Id.*

On December 13, 2013, while the present investigation was pending before the Commission, the Federal Circuit issued its decision in *Suprema Inc. v. ITC*, No. 2012-1170, Slip Op. at 20 (Fed. Cir. Dec. 13, 2013) ("*Suprema*"). In *Suprema*, the Court vacated the Commission's induced infringement finding, holding that "an exclusion order based on a violation of 19 U.S.C. § 1337(a)(1)(B)(i) may not be predicated on a theory of induced infringement under 35 U.S.C. § 271(b) where direct infringement does not occur until after importation of the articles the exclusion order would bar." Slip Op. at 4, 6. In other words, "the statutory grant of authority in § 337 cannot extend to the conduct proscribed in § 271(b) where the acts of underlying direct infringement occur post-importation." *Id.* at 20-21.

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[1] As discussed below in Section IV.A.3, the ALJ also found that complainant has shown that use of the accused Panorama functionality on the HTC Vivid and the HTC Incredible meets each limitation of the asserted method claims of the '538 patent. ID at 111-22.

HTC argues to the Commission that the Federal Circuit's decision in *Suprema* is dispositive of the present investigation vis-à-vis the '538 patent, because claims 1 and 19 of the '538 patent are method claims for which the accused act of direct infringement only occurs after importation. Flashpoint argues that the *Suprema* decision does not reach the facts of this Investigation. According to Flashpoint, the Federal Circuit has neither changed the law nor proscribed the Commission from remedying a respondent's inducement of infringement under any circumstances other than the facts of *Suprema*, which facts are vastly different than those presented here.

HTC argues in the alternative that Flashpoint has not shown the requisite intent to induce infringement. According to HTC, under the Federal Circuit's *en banc* decision in *DSU*, inducement requires evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities. Flashpoint argues that the evidence it presented mirrors and exceeds that presented in *i4i Ltd. Partnership v. Microsoft Corp.*, in which the Federal Circuit found substantial evidence to support a jury verdict finding Microsoft liable for induced infringement of a method claim. 598 F.3d 831, 851-52 (Fed. Cir. 2010), *aff'd on other grounds*, 131 S. Ct. 2238 (2011)

HTC further argues that the ALJ erred in finding that Flashpoint presented sufficient evidence to establish direct acts of infringement. Flashpoint argues that it has established at least one instance of direct infringement occurred in the United States. Flashpoint argues that the facts here are similar to those in *Lucent Techs. Inc. v. Gateway, Inc.*, where the Federal Circuit found that circumstantial evidence of extensive sales along with Microsoft's dissemination of instructions for infringing showed it was "more likely than not one person somewhere in the United States had performed the claimed method using the Microsoft products." 580 F.3d 1301, 1318 (Fed. Cir. 2009).

The Commission finds that Flashpoint has not presented sufficient evidence to show that HTC possessed specific intent to induce infringement. As discussed below, we find that Flashpoint has not presented sufficient evidence showing that HTC "knowingly induced infringement and possessed specific intent to encourage another's infringement." *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed.Cir. 2005); *see* 35 U.S.C. § 271(b).[2]

Flashpoint presented two pieces of evidence to demonstrate HTC's alleged knowledge and specific intent. In its post-hearing reply brief, Flashpoint argued that HTC had knowledge of the '538 patent by bringing to the ALJ's attention for the first time a 2009 district court complaint filed by Flashpoint in the U.S. District Court for the District of Delaware, asserting the '538 patent against HTC. *See* Ex. 73 to Second Amended Complaint of Flashpoint Technology, Inc. (Plaintiff's Second Amended Complaint for Patent Infringement, *Flashpoint Technology, Inc. v. Aiptek et al.*, 1:08-cv-00139 (D. Del. Aug. 28, 2009) (D.I. 243)) ("Delaware Complaint"). As for specific intent, Flashpoint presented a brief statement in its post-hearing reply brief that "HTC continues to provide instruction on infringing use to its customers. *See, e.g.*, CX-0079.00061 (HTC Vivid User Guide)." Based on this statement in Flashpoint's post-hearing reply brief and the Delaware Complaint, the ALJ found specific intent to induce infringement. ID at 111.

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[2] Given Flashpoint's failure of proof as to specific intent, the Commission need not address HTC's argument concerning *Suprema.*

We find this evidence insufficient to support Flashpoint's argument that it has shown knowledge and intent to induce. Even considering the district court complaint, "[i]t is insufficient simply to show that the accused party knows that its customers perform acts and that those acts happen to [be accused of infringing] a patent." *Certain Gaming & Entm't Consoles, Related Software, & Components Thereof*, Inv. No. 337-TA-752, Unreviewed Final ID on Remand at 19 (April 2, 2013) (citing *DSU Med. Corp.*, 471 F.3d at 1306). Despite noting that Flashpoint's post-hearing opening brief contained only the most skeletal discussion of the intent requirement for induced infringement, the ALJ found the brief citation to the Delaware Complaint and the brief citation to HTC's instruction manuals to be sufficient evidence of HTC's knowledge and specific intent to induce. *See* ID at 108-111. The ALJ did not cite to expert testimony explaining the instruction manuals or explain how HTC had knowledge of how the '538 patent is practiced and that HTC intended the accused devices to be used in an infringing manner. *Id.*

The Commission finds the current investigation to be distinguishable from the cases cited by HTC in which specific intent was found based on instruction manuals, because in those other cases, additional evidence was presented showing that the alleged infringer intended the accused devices to be used in an infringing manner. The evidence presented by Flashpoint in this investigation is distinguishable from the facts in *i4i*. In *i4i*, the Federal Circuit did not rely only on Microsoft's online training and user support resources, which provided detailed instructions in using the accused XML editor. 598 F.3d at 852. The Federal Circuit relied also on Microsoft's internal emails of Microsoft's knowledge of the asserted patent and the infringing nature of the accused XML editor. *Id.* Specifically, the Court found that the Word development team heard a presentation by i4i about software practicing the asserted patent, asked how the software worked, and received marketing materials on the software. *Id.* at 851. The Court found that internal Microsoft emails showed that other Microsoft employees received a marketing email from i4i containing the patent number, were familiar with i4i's products, and believed the Word's custom XML editor would render i4i's products "obsolete." *Id.* Thus, the Court found that based on this evidence, the jury could have reasonably concluded that Microsoft not only knew about the asserted patent but also knew that use of its custom XML editor would infringe. *Id.*

In the current investigation, all Flashpoint has shown with respect to knowledge is that HTC knew that the '538 patent exists. *Commil USA, LLC v. Cisco Sys. Inc.*, 720 F.3d 1361, 1367 (Fed. Cir. 2013) ("A finding of inducement requires *both* knowledge of the existence of the patent and 'knowledge that the induced acts constitute patent infringement.'") (emphasis added). Flashpoint has not shown that HTC knew that use of the Panoramic feature on the HTC Vivid and HTC Incredible would infringe the '538 patent. No such knowledge can be inferred from the Delaware Complaint. Specifically, the Delaware Complaint asserted multiple patents, including the '538 patent, against multiple defendants, including HTC. *See* Delaware Complaint at ¶ 42. With respect to HTC, the complaint merely alleged that HTC's "Touch and Fuze cellphones" and HTC's "Wing cellphone" infringe one or more claims of the asserted patents, including the '538 patent. *Id.* Flashpoint has provided no evidence that the HTC Vivid and the HTC Incredible are among the accused products in the Delaware suit, or that the accused Panorama feature in the HTC Vivid and HTC Incredible are the subject of the suit.

The evidentiary gap in showing the requisite knowledge and intent to induce infringement cannot be filled by citation to HTC's user manual describing the Panorama feature. *See* CX-0079 (HTC Vivid User Guide) and CX-0381 (HTC Incredible User Guide). We note that in its post-hearing briefing before the ALJ, Flashpoint did not cite any expert testimony regarding these user guides to show that the guides directed users to use the Panorama feature in a way that infringes the '538 patent. Flashpoint attempted to correct this evidentiary deficiency in its response briefing to the Commission by arguing that the Panorama feature itself instructs HTC's customers on infringing use. Specifically, Flashpoint cites to expert testimony discussing screenshots showing how HTC Vivid and Incredible guide user through series of image captures to infringe the '538 patent. *See* CX-615.1C at Q/A 145, 165, 228, 278.

We find this evidence to be insufficient. Flashpoint has at best shown that HTC provided instructions directing users to use the Panorama feature in a way that, according to Flashpoint, meets each of the limitations of the asserted method claim. Flashpoint provided no additional evidence, however, showing that HTC *knew* that use of the Panorama feature would infringe the '538 patent. Flashpoint's argument regarding specific intent essentially amounts to this: as long as the alleged infringer knew of the existence of the patent and gave instructions to practice the accused method, then specific intent is shown. This position is contrary to Federal Circuit precedent. Unlike in *i4i*, there is no evidence that HTC had knowledge of the '538 patent *and* "the infringing nature" of the Panorama functionality. 598 F.3d at 852 (emphasis added); *see also Commil USA*, 720 F.3d at 1367. Flashpoint therefore failed to prove HTC possessed the requisite culpable intent to induce another's infringement.

As for acts of direct infringement, we find evidence of HTC's own testing of the accused devices or performance of the infringing method by Flashpoint's expert to be insufficient. The patentee must show that the accused infringer induced someone other than itself to carry out at least some of the acts of the direct infringement. *See Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1319 (Fed. Cir. 2009) (affirming a jury verdict finding that at least one *other* person within the United States during the relevant time period, other than the patentee's expert, had performed the claimed method.). Neither can the patentee show inducement by simply showing that its own expert carried out the acts of direct infringement. *Id.*

Flashpoint, however, need not have produced direct evidence that HTC's customers actually used the Panorama functionality on the accused products, as long as Flashpoint produces sufficient circumstantial evidence showing that HTC's customers practiced the infringing method. As stated by the Federal Circuit, the patentee can produce sufficient circumstantial evidence to allow the fact-finder to "find that at least one other person within the United States during the relevant time period, other than the expert, had performed the claimed method." *Id.* at 1318-19. For example, in *Lucent Technologies*, the jury reviewed evidence relating to the extensive sales of Microsoft products and the dissemination of instruction manuals for the Microsoft products, and heard corresponding testimony from Lucent's infringement expert. *Id.* According to the Court, "The circumstantial documentary evidence, supplementing the experts' testimony, was just barely sufficient to permit the jury to find direct infringement by a preponderance of the evidence." *Id.* at 1318.

In the instant case, Flashpoint offered evidence of sales of only the HTC Vivid, with no evidence regarding sales of the HTC Incredible. [

]The only circumstantial evidence provided by Flashpoint for the HTC Incredible are HTC's user guides and Flashpoint's expert testimony explaining how the HTC Incredible infringes the '538 patent. We note that Flashpoint's expert did not specifically testify that he himself actually used the HTC Vivid or HTC Incredible. Even if we can infer from Flashpoint's expert testimony that he did actually use the two accused devices, the Court in *Lucent* warned that if such expert testimony from the patentee was were the only evidence of performing the claimed method, the Court "would likely have to reverse" the jury's finding of induced infringement. *Lucent*, 580 F.3d at 1318. Flashpoint has shown, at most, that there are acts of direct infringement by a third party with respect to the HTC Vivid. As discussed above, however, because Flashpoint has not shown that HTC had knowledge and specific intent to induce infringement with respect to the HTC Vivid, Flashpoint has not proved induced infringement for that HTC model either.

For the foregoing reasons, we find that Flashpoint has not shown that HTC induces infringement of the '538 patent with respect to the HTC Vivid and the HTC Incredible. Thus, the Commission has determined to reverse the ALJ's finding of induced infringement.

Lastly, we turn to Flashpoint's contributory infringement argument, raised for the first time in its response briefing to the Commission.[3] Flashpoint never presented this allegation to the ALJ, and as such this issue was waived. *Certain Foam Footwear*, Inv. No. 337-TA-567, 2008 WL 1855922, Comm'n Determination (Apr. 11, 2008); *Broadcom v. Int'l Trade Comm'n*, 542 F.3d 894, 900-901 (Fed. Cir. 2008). Because Flashpoint could have raised this issue previously, and chose not to, the Commission has determined to deny Flashpoint's invitation to re-open the record.

3. Direct Infringement

Once the claims at issue have been properly construed, they are compared to the allegedly infringing device in order to determine direct infringement. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (*en banc*). Comparison of a claim to an accused device is a question of fact that requires that the patent holder establish that the accused device includes every claim limitation or its equivalent. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997).

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[3] *See* Flashpoint's Response to the Commission's Notice for Briefing ("Flashpoint Br.") at 7-11.

The ALJ found that complainant has shown that use of the Panorama functionality on the HTC Vivid and the HTC Incredible meets each limitation of the asserted method claims of the '538 patent. ID at 111-22. The ALJ found non-infringement, however, for the remaining accused HTC models because Flashpoint has not shown that the two specific models are representative of the remaining HTC models. *Id.* at 107. HTC challenged the ALJ's infringement finding with respect to the HTC Vivid and the HTC Incredible, and Flashpoint challenged the ALJ's finding that it has not shown that the two models are representative of the remaining accused HTC products. On December 16, 2013, the Commission determined not to review the representativeness issue. 78 *Fed. Reg.* 77490.

With respect to direct infringement by the HTC Vivid and HTC Incredible, the ALJ found that performance of the Panorama functionality on the accused HTC Vivid and Incredible meets each of the limitations of asserted claims 1 and 19 of the '538 patent. ID at 112-16.

HTC challenged the ALJ's direct infringement analysis with respect to the claim limitations "digital camera," "direct image capture sequence," "interactive instructions," "overlay bars," and "minimize." We address each of HTC's arguments in turn. For the reasons provided below, we agree with the ALJ that the HTC Vivid practices each element of claims 1 and 19 of the '538 patent. We also agree with the ALJ that the HTC Incredible practices each element of claim 19 of the '538 patent. We disagree with the ALJ, however, that the HTC Incredible practices each element of claim 1 of the '538 patent.

i. "digital camera" of claims 1 and 19

The ALJ gave the term "digital camera" its plain and ordinary meaning. ID at 70. The ALJ rejected Respondents' argument that the term "digital camera" should be construed as "an electronic device, different from a personal computer, dedicated to capturing digital images using an image sensor." *Id.* On December 16, 2013, the Commission determined not to review the ALJ's construction. 78 *Fed. Reg.* 77490. Based on the plain and ordinary meaning, the ALJ found that the HTC Vivid and Incredible are hand-held digital cameras having "integrated displays," as required by claim 1. ID at 112-13.

HTC argues that the HTC Vivid and Incredible are not "digital cameras" under its proposed construction for that term. According to HTC, a smartphone does not primarily function to take pictures, and the applicant chose to surrender all "digital imaging devices" except digital cameras when it amended the claims during prosecution.

The Commission finds that the ALJ correctly found that the accused HTC Vivid and Incredible are "digital cameras" within the meaning of the asserted claims of the '538 patent, because they are smartphones that include digital cameras. *See* CX-615.1C at Q/A.130-35. HTC's user manuals for the Vivid and Incredible show that users can take a digital photo just like a regular camera. *See* CX-79.61-62 ("Point the camera and focus on your subject"); CX-381.44-46 ("Just point the camera on what you want to capture"). Because the ALJ declined to adopt HTC's narrow claim construction for the term "digital camera" and the Commission did not review the ALJ's claim construction, we find that HTC's argument that the accused devices are not "digital cameras" is unpersuasive. *See* ID at 70-74.

ii. "storing a directed image capture sequence comprising a set of program instructions" of claims 1 and 19

The ALJ found that the Panorama functionality on the two accused devices store "a directed image capture sequence comprising a set of program instructions," as required by claim

1 and 19. *Id.* at 133. Specifically, the ALJ found that the User Guide describes what the user will see on the camera screen as the program instructions guide the user through a series of image captures that are stitched together to create a Panorama image. *Id.* According to the ALJ, the source code analyzed by Flashpoint's expert, Dr. Stevenson, shows that the Panorama directed image capture sequence is comprised of a set of program instructions executed on the device. *Id.* at 116.

HTC argues that the ALJ erred in finding that the HTC Vivid and Incredible meet the "direct image capture sequence" limitation of claims 1 and 19, because the ALJ identified no "program instructions, which, when executed, guide a user through a series of related image captures." According to HTC, when discussing this claim element, the ALJ did not identify the specific code that pertains to the accused functionality, but relied on the teachings of the HTC product user guides related to Panorama functionality in the two HTC smartphones and incorrectly assumed that functionality is implemented using program instructions.

The Commission disagrees with HTC that Flashpoint did not identify the source code that pertains to the accused functionality, but instead relied merely on the teachings of the HTC product user guides related to the Panorama functionality in the two HTC Vivid and Incredible smartphones. The ALJ correctly found that the accused HTC Vivid and Incredible store and execute a directed image capture sequence comprised of program instructions. As found by the ALJ, Dr. Stevenson provided extensive analysis of source code stored on the HTC Incredible. CX-615.1C at Q/A243-72. As for the HTC Vivid, Dr. Stevenson testified consistently on cross and redirect examination that he identified the compiled source code stored on the HTC Vivid. Stevenson, Tr. at 525:20-21, 562:4-14, 592:8-593:16. HTC's lengthy argument that this limitation is not met is based on its own construction of the term "program instructions," which the ALJ did not adopt. As the ALJ explained in his claim construction analysis of "program instructions," the ALJ disagreed with HTC's argument that the term "program instructions" means non-compiled code. ID at 78. As the ALJ noted, the '538 patent contemplates that program instructions may be written using both scripts that can be easily written by a user or more complex program languages that must be complied. *Id.* On December 16, 2013, the Commission determined not to review the ALJ's claim construction of "program instructions." 78 *Fed. Reg.* 77490.

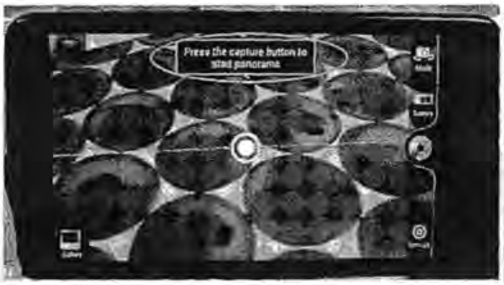
iii. "executing the directed image capture sequence in the hand-held digital camera to display interactive instructions on the integrated display that prompt the user to perform a first operation" of claims 1 and 19

The ALJ further found that the HTC Vivid and Incredible "execute the directed image capture sequence in the hand-held digital camera to display interactive instructions that prompt the user to perform a first operation," as required by claim 1 and 19. *Id.* at 114. According to the ALJ, the Panorama directed image capture sequence is executed in the two devices when the screen displays the prompt "Press the capture button to start Panorama." *Id.* at 114-15. HTC does not challenge the ALJ's finding for this particular limitation, and we do not find any error in the ALJ's analysis.

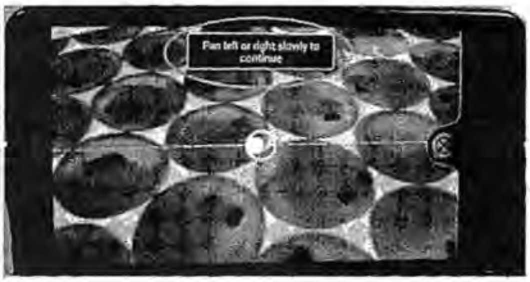
iv. "in response to the user performing the first operation, automatically *updating the interactive instructions* to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures, *while minimizing the number of key sequences . . .*" of claims 1 and 19

The ALJ construed the term "interactive instructions" as "prompts that guide a user to perform specific operations related to the directed image capture sequence." ID at 82. The ALJ disagreed with respondents that "interactive instructions" should be limited to textual instructions. *Id.* On December 16, 2013, the Commission determined not to review the ALJ's construction. 78 *Fed. Reg.* 77490.

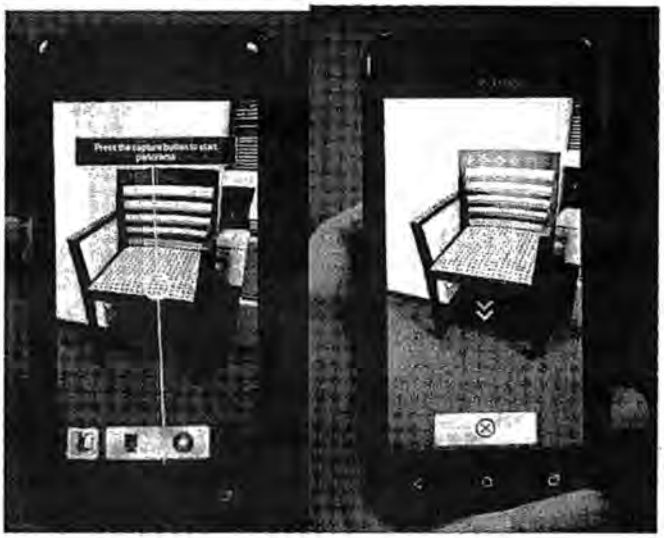
Applying this claim construction, the ALJ found that the HTC Vivid and Incredible meet the limitation "execute the directed image capture sequence in the hand-held digital camera to display interactive instructions that prompt the user to perform a first operation" of claims 1 and 19. *Id.* at 114. According to the ALJ, the Panorama directed image capture sequence is executed in the two devices when the screen displays the prompt "Press the capture button to start Panorama." *Id.* at 114-15. The ALJ also found that the HTC Vivid and Incredible "automatically update the interactive instructions to prompt the user to perform a second operation," as required by claim 1 and 19. *Id.* According to the ALJ, when the user captures the first image, as instructed, the interactive instructions automatically update to prompt the user to pan the device, *i.e.*, "a second operation." *Id.* at 117. The ALJ cited to the following screenshots showing the interactive instructions found on the HTC Vivid and Incredible:



Press the capture button to start panorama



Pan left or right slowly to continue



Id. According to the ALJ, panning the device results in the second and subsequent image captures, and the user is guided through the first and subsequent image captures without having to memorize any key sequences. *Id.* at 117-18.

HTC argues in its petition for review that the claims require multiple instructions, as opposed to a single instruction. HTC argues that, because the claims require a plurality of interactive instructions before and after initiation of image capture, to find infringement, the ALJ must identify at least two alleged interactive instructions that prompt a user to perform a first operation and another two "updated" interactive instructions that prompt a user to perform a second operation.

We find that HTC misinterprets the language of the asserted claims when it states that there is a requirement for at least two interactive instructions displayed on the integrated display that prompt the user to perform a first operation and that those two instructions be updated to display two more interactive instructions that prompt a user to perform a second operation. The use of the phrase "interactive instructions" in the plural does not imply that multiple instructions are required to be displayed on the integrated display at the same time to prompt the user to perform a first operation. Rather, a plain reading of the claim language shows that the phrase "interactive instructions" is recited in the plural to simply mean that the user is guided through a series of instructions, one instruction at a time, as part of the "directed image captures sequence." Thus, HTC's argument in its petition for review that its devices do not infringe because they display "at most only a single instruction for each phone" at a time is unpersuasive. *See* HTC Petition for Review at 35.

HTC also argues that the instruction must be textual rather than a visual prompt. *Id.* at 39. We disagree with HTC. As discussed in the ALJ's claim construction analysis, which the Commission did not review, the term "interactive instructions" are not limited to textual instructions as urged by HTC. *See* ID at 82. Applying this construction, the ALJ correctly found that in the HTC Vivid, the instructions "Press the capture button to start Panorama" and "Pan left or right slowly to continue" are interactive instructions. ID at 117. The ALJ also correctly found that, in the HTC Incredible, the instruction "Press the capture button to start Panorama" followed by the arrow prompts are also interactive instructions. *Id.* at 118.

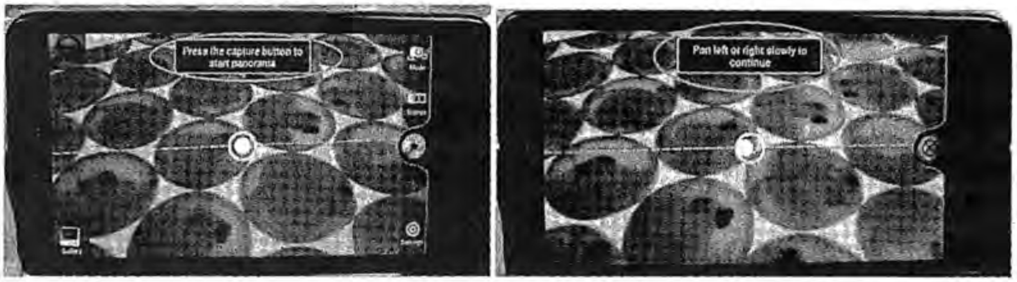
HTC further argues that the ALJ erred in finding that the HTC Vivid and Incredible "minimize the number of key sequences the user must memorize in operating the Panorama mode," because the ALJ never identified what key sequences are minimized or to what extent they are minimized. HTC argues that the user must remember a number sequences in order to operate the Panorama mode, including selecting "Scenes" icon first and then "Panorama" in order to enter the Panorama mode, as well as the appearance of the capture button. We disagree with HTC. It is uncontested that when the user presses the "Panorama" icon, an instruction appears directing the user to "press the capture button to start Panorama;" when the user does so, the instruction updates, directing the user to "pan" the device. CX-615.1C at Q/A 159-71, 273-

88. As such, the ALJ correctly found that the user need not memorize any key sequences to take a panoramic picture with HTC devices. ID at 116. We therefore agree with the ALJ that the HTC Vivid and Incredible meet the limitation "in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures, while minimizing the number of key sequences."

v. "wherein the interactive instructions are displayed in the form of an overlay bar that is on the integrated display and the interactive instructions are updated by updating the overlay bar" of claim 1 and "displaying a first translucent overlay bar in the integrated display" of claim 19

Claim 1 requires that the "overlay bar" contains interactive instructions and that the interactive instructions be updated by updating the overlay bar. Claim 19 requires that the "overlay bar" be translucent, but does not require that interactive instructions appear within the overlay bar. The ALJ gave the term "overlay bar" its plain and ordinary meaning. ID at 86. On December 16, 2013, the Commission determined not to review the ALJ's construction. 78 *Fed. Reg.* 77490. Applying this construction, the ALJ found that the HTC Vivid and Incredible meet both "overlay bar" limitations of claims 1 and 19. ID at 119-20. Specifically, the ALJ found that the interactive instructions are displayed on the accused HTC devices on an area for displaying information that appears on top of the image otherwise displayed on the screen. *Id.*

We agree with the ALJ's infringement analysis for claims 1 and 19 with respect to the HTC Vivid. As found by the ALJ, and as seen in the screenshots below, the interactive instructions for the HTC Vivid appear as white text in a horizontal rectangular-shaped overlay bar:

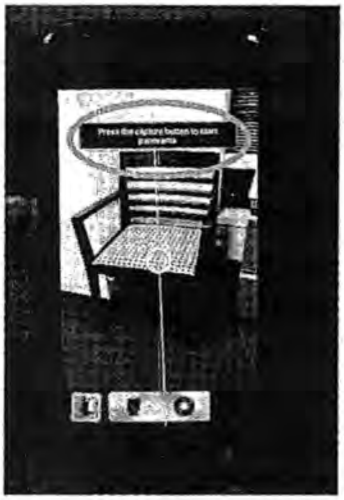


Press the capture button to start panorama

Pan left or right slowly to continue

Id. at 117. The overlay bar is translucent because the image otherwise displayed on the screen can be seen within the bounded area. CX-615C at Q/A198.

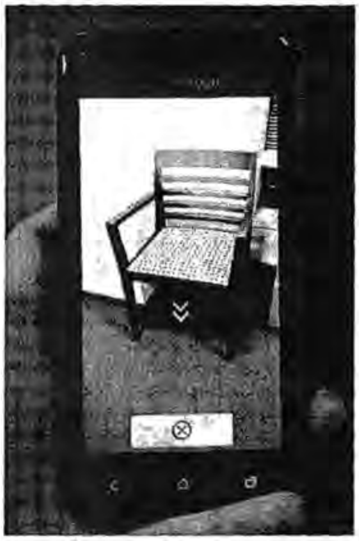
With respect to the HTC Incredible, we agree with the ALJ that the "overlay bar" limitation of claim 19 is met. As shown in the image below, the HTC Incredible displays a translucent overlay bar on the integrated display:



Press the capture button to start panorama

CX-615C at Q/A309. The portion of the screen that has been circled in blue is an overlay bar because it is an area for displaying information that appears to lie on top of the image otherwise displayed on the screen. *Id.*

We disagree, however, with the ALJ's analysis of the "overlay bar" limitation for the HTC Incredible for claim 1. As noted above, unlike claim 19, claim 1 requires that the "overlay bar" contain interactive instructions. Flashpoint uses the following screenshot as the basis for its argument that this limitation is met by the HTC Incredible:



CDX-008.14; CX-615C at Q/A.277-79. The arrow prompts, which Flashpoint alleges to be "interactive instructions," appear on their own and are not displayed in the form of an overlay bar, as shown in the screenshot below. *Id.* Specifically, Flashpoint's expert testified that the arrows appear and blink, instructing the user to pan the device. CX-615C at Q/A.279. While the ALJ acknowledged the prompts to be interactive instructions, the ALJ did not address the requirement that the arrow prompts appear in the form of an overlay bar. *Id.* at 120. A simple inspection of the screenshot of the HTC Incredible, shown above, reveals that the HTC Incredible does not meet the limitation "wherein the interactive instructions are displayed in the form of an overlay bar" limitation of claim 1. Thus, Flashpoint has not shown that the HTC Incredible meets all the limitations of claim 1 of the '538 patent.

In sum, Commission has determined to affirm the ALJ's determination that the HTC Vivid directly infringes the claim 1 and 19 of the '538 patent, to affirm the ALJ's determination that the HTC Incredible infringes claim 19 of the '538 patent, and to reverse the ALJ's determination that the HTC Incredible directly infringes claim 1 of the '538 patent.

4. Technical Prong of the Domestic Industry Requirement

To meet the technical prong, at least under section 337(a)(3)(A)-(B), it has been held that the complainant must establish that it practices at least one claim of the asserted patent. *See Certain Microsphere Adhesives, Process for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op., 1996 WL 1056095, at *7-8 (Jan. 16, 1996). "The test for satisfying the 'technical prong' of the domestic industry requirement is essentially the same as that for infringement, *i.e.*, a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003).

Before the ALJ, Flashpoint argued that its licensed Apple iPhone 5S smartphones using Apple's iOS 6 operating system and its licensed Motorola Droid Razr Maxx smartphones using Motorola's Android operating systems practice the asserted claims 1 and 19 of the '538 patent. The ALJ found that the licensed Apple products practice each limitation of claims 1 and 19 of the '538 patent. ID at 184-90. The ALJ also found that the licensed Motorola products practice each limitation of claim 19 of the '538 patent. *Id.* at 191-196. Respondents did not challenge the ALJ's finding. The Commission has determined to affirm the ALJ's finding that Flashpoint has proved the technical prong of the domestic industry requirement with respect to the '538 patent.

5. Validity - Thurlo, Branson, APA, Gough, and Small

A patent may be found invalid under 35 U.S.C. § 103(a) if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). Once claims have been properly construed, the obviousness inquiry requires determining whether the claimed invention would have been obvious as a legal matter, based on underlying factual inquiries including the following: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art; and (4) secondary considerations of non-obviousness. *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1354 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)).

The asserted obviousness combination at issue for the '538 patent consists of U.S. Patent No. 5,835,772 to Thurlo ("Thurlo") (RX-992), U.S. Patent No. 5,740,801 to Branson ("Branson") (RX-994), the "Admitted Prior Art" ("APA") (JX-6), U.S. Patent No. 5,638,501 to Gough *et al.* (Gough) (RX-1004), and U.S. Patent No. 5,898,434 to Small ("Small") (RX-1008).

On September 15, 2009, third party Kyocera Communications, Inc. requested *ex parte* reexamination of original claims 1-5, 14 and 15 of the '538 patent. RX-1019 at A64; JX-8. The Patent Office ("PTO") rejected the claims under 35 U.S.C. § 103(a) over the reexamination prior art, consisting of Thurlo, Branson, and the APA ("the reexamination prior art"). RX-1019 at A64, A82; JX-8 at 688. Specifically, Thurlo relates to a digital camera that stores and executes program instructions such as a script or source code. RX-1019 at A80, A82. Branson relates to a personal computer system for acquiring a specific sequence of images in a medical application. CX-743C at Q/A.726; RX-1019 at Q/A.87. The APA refers to a portion of the '538 patent disclosing that hand-held digital cameras with an integrated display were known in the prior art. RX-1019 at A74, A92; JX-6 at 1:20-34.

During the reexamination, the PTO stated that the limitations "to display interactive instructions . . . that prompt the user to perform a first operation" and "automatically updating the interactive instructions to prompt the user to perform a second operation" would have been rendered obvious by Branson, in combination with Thurlo and the APA. RX-1019 at A64; JX-8 at 3925. As a result, Flashpoint amended the claims to recite "overlay bar" limitation to overcome the rejections. RX-1019 at Q/A.64, A82-83; JX-8 at 6368. By amending the claims over the reexamination prior art, Flashpoint admitted that the reexamination prior art disclosed all of the limitations of claim 1, except for the "overlay bar" limitation. *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 1479 (Fed. Cir. 1998) ("an amendment to overcome a prior art rejection evidences an admission that the claim was not patentable").

The additional references of Gough and Small were not before the PTO during the original prosecution or the *ex parte* reexamination of the '538 patent. RX-1019 at A100, A104. Gough discloses applying a translucent overlay image to images displayed on a personal computer. RX-1004, Fig. 4, 1:14-20, Abstract. Small discloses a programmable user interface for a digital camera. RX-1008. In Small, a horizontal menu is displayed on the graphic user-interface of the portable device, presenting buttons associated with script or program function that can be executed by selection of the buttons. RX-1008, Fig. 16a, 2:19-24, 14:61-65.

Before the ALJ, HTC argued that during the reexamination of the '538 patent, Flashpoint conceded that all claim elements of each of claim 1 and 19 were known, except for the "overlay bar" limitation, the purported point of novelty of the asserted claims. Specifically, HTC argued that during reexamination, the examiner rejected the original claims over the reexamination prior art, and by amending the claims over the reexamination prior art, Flashpoint admitted that the reexamination prior art disclosed all of the limitations of claim 1, except for the "overlay bar" limitation. According to HTC, the reexamination prior art can be readily combined with Gough and/or Small. HTC argued in the alternative that the reexamination prior art alone renders the '538 patent obvious because the examiner overlooked the fact that an "overlay bar" was already disclosed in the prior art at the time of the invention of the '538 patent and would have been obvious to a person of ordinary skill in the art at that time.

The ALJ began his analysis by noting that HTC carries a particularly heavy burden because Thurlo, Branson, and the APA were considered by the Examiner and also the claims were allowed over those specific references during reexamination. ID at 148. The ALJ found that HTC failed to meet that heavy burden showing that the Examiner overlooked the existence of the overlay bar in the prior art and that it would have been obvious to one of ordinary skill in the art to add the overlay bar. *Id.* at 149. According to the ALJ, HTC asserts that the overly bar was disclosed in Branson even though the Examiner specifically considered the reference. *Id.* The ALJ further found that HTC did not offer a clear and convincing motivation to combine the references. *Id.*

HTC argued that the ALJ erroneously applied an enhanced burden. According to HTC, no such burden exists when previously examined prior art is combined with references that were not previously before the examiner. Flashpoint argues that, to the extent the ALJ applied a "heavy burden" to the previously considered references, it was to the combination of Thurlo, Branson, and the APA *alone*, without the addition of Gough and/or Small.

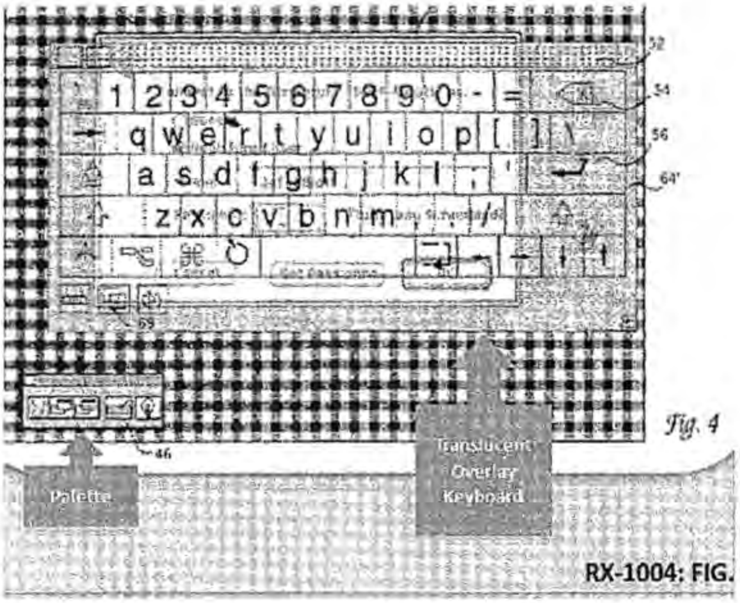
We agree with Flashpoint. Because HTC asserts that the "overlay bar" limitation can be supplied by either Branson, Gough, or Small, HTC essentially provided two alternative arguments. First, HTC argues that the reexamination prior art by themselves render the asserted claims of the '538 patent obvious. Second, HTC argues that the reexamination prior art in combination with Gough and/or Small renders the '538 patent obvious. To the extent that the ALJ applied a heightened burden, it was to the reexamination prior art alone. *Certain Kinesiotherapy Devices and Components Thereof*, Inv. No. 337-TA-823, Unreviewed ID, at 17

(Jan. 8, 2013) (citing *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1467 (Fed. Cir. 1990)) ("[T]he challenger's burden is especially difficult when the prior art was before the PTO examiner during prosecution of the application."). We agree with the ALJ that HTC has not shown by clear and convincing evidence that a person of ordinary skill in the art would be motivated to combine the reexamination prior art alone to arrive at the claimed invention, which includes the "overlay limitation."

Flashpoint's amendment during the reexamination was an admission that the reexamination prior art discloses all of the claim elements except for the added "overlay bar" limitation. *See Hester Indus.*, 142 F.3d at 1479. To support its argument that the reexamination prior art alone renders the '538 patent obvious, HTC argues that during reexamination, the examiner overlooked the fact that Branson already discloses overlaying techniques. HTC points to the portion of Branson that teaches a personal computer system that prompts a user "via a graphical object or a text clue imposed on the displayed image." RX-1019 at A85, A89; RX-994 at 17:40-52; JX-8 at 692. We disagree with HTC that the examiner overlooked this disclosure in allowing the claims over the reexamination prior art. The examiner is presumed to have properly done his or her job, including properly considering prior art references such as Branson, and HTC has provided no support that the examiner "overlooked" or did not consider the "overlay bar" allegedly disclosed in Branson. *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed. Cir. 1984).

Moreover, a close inspection of Branson shows that it does not disclose the "overlay bar" limitation of the asserted claims of the '538 patent. The alleged overlay technique of Branson is a "graphical object or a text clue" that prompts a physician on where to position the image-capturing tool among anatomic sites in the patient. RX-994 at 17:40-52. The evidence shows that a person of ordinary skill in the art would not consider this disclosure to arrive at the '538 invention, including the "overlay bar" limitation. Specifically, Flashpoint's expert testified that using an "overlay bar" as claimed in the '538 patent in the endoscopy system of Branson would obscure the images taken by the physician and thus frustrate the goal of Branson of achieving an accurate medical diagnosis. CX-743C at Q/A.279. Thus, HTC has not overcome the heightened burden required to show obviousness using the reexamination prior art alone. *Hewlett-Packard Co.*, 909 F.2d at 1467.

Even though the combination of the reexamination prior art with Gough and/or Small is not subject to a heightened burden, we find that HTC nevertheless has not shown by clear and convincing evidence that the addition of Gough and/or Small would render the claimed invention obvious. With respect to Gough, Respondents assert that Gough discloses the "overlay bar" limitation because it discloses a translucent overlay image in the form of keyboard as shown below:



RX-1004: FIG.

RX-1019 at Q/A.111. We are skeptical that this disclosure constitutes an "overlay bar" as required by the asserted claims of the '538 patent. We note that respondents only assert that Gough discloses the "overlay bar" limitation under Flashpoint's construction of the term "overlay bar," which allows the term to include a general overlay area such as the entire screen, rather than a specific area containing instructions. RX-1019 at Q/A.111. The ALJ did not adopt this broad construction. ID at 85.

Moreover, there are material differences in the fields of the references that mitigate motivation to combine Gough with the reexamination prior art. Even if we assume that Gough discloses instructive "overlay bars" as described in the '538 patent, evidence shows that a person of ordinary skill in the art would not look to Gough to supply the overlay bar limitation for the '538 invention. The asserted claims of the '538 patent do not require an "overlay bar" in the abstract, but rather in the context of a directed image capture sequence that is stored and executed on a hand-held device. *See* JX-6 at 12:51-55 (specification stating that displaying overlay bars on the camera's LCD screen "not only enhances the visual effect associated with the overlay bars, but also eliminates the need to re-decompress the jpeg image data when the user turns off the overlay bars, thereby increasing performance of the camera."); CX-743C at Q/A.271, 279; *see also* Stevenson, Tr. at 922:17-923:12. Flashpoint's expert Dr. Stevenson testified that Gough only teaches using an overlay technique on a personal computer as opposed to a portable device, and that due to the vast differences in processor and memory usage between personal computers and portable devices at the time of the '538 invention, a person of ordinary skill in the art at that time would not look to a reference relating to personal computers in designing an image capture and storage system on a portable device. CX-743C at Q/A.277, 285.

With respect to Small, while it discloses a portable multimedia device that could be combined with the portable devices of Thurlo and the APA, it is not clear whether Small discloses an "overlay bar" limitation. Respondents assert that Small discloses the "overlay bar" limitation because it discloses icons arranged in section-offed portions of the display screen, referred to in Small as "elements of a horizontal stack." RX-1019 at Q/A.85; Acton, Tr. at 1000:8-12, 1001:7-15; RX-1008 at fig. 16a, 5:23-24. As shown below, Respondents refer to the horizontal bar at the bottom of the display screen (indicated by the blue arrow) as an "overlay bar":

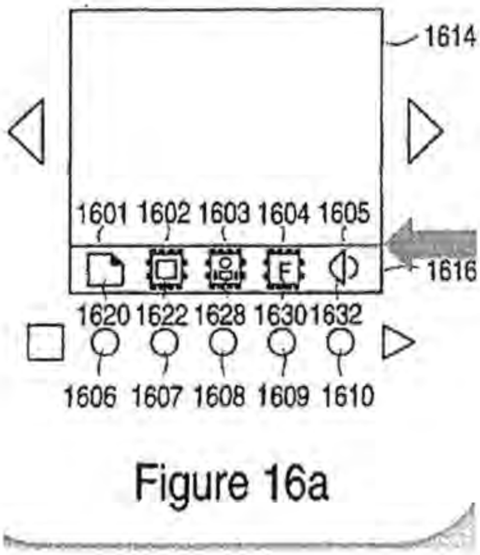


Figure 16a

RX-1019 at Q/A.111. Flashpoint's expert Dr. Stevenson testified, however, that the horizontal stack element in Small acts like a separate menu bar and is displayed underneath rather than over the underlying image when the underlying image is resized. CX-743C at Q/A.279, 284-85. In our view, the hallmark of the "overlay bar" of the '538 patent is that it appears to be lying on top of another image, without resizing the underlying image. *See* '538 patent, Figs. 8a-c. Respondents have not shown by clear and convincing evidence that Small supplies the "overlay bar" limitation of the asserted claims. Thus, Respondents have not shown by clear and convincing evidence that the asserted claims of the '538 patent are rendered obvious by the combination of the reexamination prior art with Gough and/or Small. The Commission has determined to affirm the ALJ's finding of non-obviousness.

B. The '471 Patent

1. The Invention of the '471 Patent

The '471 patent, entitled "Flexible Architecture For Image Processing," issued on June 4, 2002, to David Kuo *et al.* JX-1. The patent underwent *ex parte* reexamination by the PTO, and the reexamination certificate issued on November 2, 2012. The invention relates to a framework that enables image processing on a digital camera to be accomplished for different digital camera platforms without disturbing the operating system of the digital camera. The term "operating system" is generally understood as a collection of system software that manages hardware resources of the device and provides common services for application programs. The '471 patent does not define the term "operating system," but states that in a preferred embodiment, the CPU "runs an operating system capable of providing a menu-driven graphical user interface (GUI) and software image processing . . . [a]n example of such software [being] the Digita™ Operating Environment by Flashpoint Technology of San Jose, Calif."

According to the '471 patent, the operating system of the invention supports image processing modes for three different digital camera platforms. The difference depends on the degree of hardware and software assistance associated with the particular digital camera platform. The first mode, referred to as the "software architecture," implements an architecture that manages buffering within the architecture and that uses plug-in image processing modules. The second mode, referred to as the "software/hardware architecture," supports the use of function calls to read in and write out data and utilizes hardware elements for image processing. The third mode, referred to as the "hardware architecture," provides an address in memory for the input and output buffers in a direct memory access environment, and uses an image processing hardware system. The '471 patent describes a data structure that serves as an interface between the operating system and the image processing system, such that the operating system is independent of the particular image processing mode used, *i.e.*, the operating system does not have to be written specifically to support the particular image processing mode used.

2. Claim Construction

Claim construction "begin[s] with and remain[s] centered on the language of the claims themselves." *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 830 (Fed. Cir. 2003); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*). The claim language is generally given its ordinary and customary meaning that would be attributed to the words by persons skilled in the relevant art. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *Phillips*, 415 F.3d at 1312-13. Moreover, the language is read in the context of the entire patent, including the specification. *Phillips*, 415 F.3d at 1313-14. To help inform the court of the ordinary meaning of the words, a court may consult the intrinsic evidence, including the claims themselves, the specification, and the prosecution history, as well as extrinsic evidence, such as dictionaries and treatises and inventor and expert testimony, when appropriate. *Id.* at 1314.

The asserted claims of the '471 patent are independent claim 1 and dependent claims and 4:

> 1. A system for processing image data in a digital image device, said system comprising:
>
> a bus;
>
> a central processing unit coupled to said bus;

> an image processing subsystem coupled to said central processing unit for processing said image data using a particular processing mode;
>
> a memory unit coupled to said bus, said memory unit having stored therein an operating system comprising instructions executed by said central processing unit to manage said image processing subsystem;
>
> said memory unit further having a data structure corresponding to said processing mode, said data structure comprising a plurality of buffers for managing said image data for said image processing subsystem during image processing, said data structure providing an interface between said operating system and said image processing subsystem, such that said operating system is independent of said processing mode used by said image processing subsystem; and
>
> a data storage element coupled to said bus for storing said image data after image processing.
>
> 2. The system of claim 1 wherein said digital image device is a digital camera.
>
> 4. The system of claim 1 further comprising a spooler element coupled to said memory unit, wherein said spooler element is for transferring said image data into said data structure.

At issue is the ALJ's construction of the term "operating system," from which the ALJ's non-infringement finding is based. Before the ALJ, Flashpoint argued that the term "operating system" means "software that manages hardware resources for the digital device." According to Flashpoint, that the term does not include a program called the "kernel" that provides basic underlying services for the operating system, or programs called "device drivers" that allows the operating system to interact with hardware devices. Respondents argued that the term means "software on the device that directly controls the allocation and usage of the hardware resources" which includes at least the "kernel." As noted by the ALJ, the principal dispute between the parties is where to draw the line between the operating system and the image processing system. ID at 24. The ALJ noted that, according to Flashpoint, while the general understanding of operating system outside the context of the '471 patent can include the kernel and drivers, the specific meaning of operating system in the context of the '471 patent would not include such components and that those components are part of the image processing subsystem. *Id.* The ALJ noted Respondents' argument that the kernel is part of the operating system under either the plain meaning of the term or under the language of Flashpoint's construction. *Id.* at 25.

The ALJ first indicated that both parties agree that the ordinary meaning of the term "operating system" include kernel and drivers. *Id.* According to the ALJ, the Federal Circuit has identified two situations where the patentee can deviate from the ordinary meaning of a claim term: (1) when a patentee sets out a definition and acts as his own lexicographer, or (2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Id.* (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). The ALJ found that neither of these situations is present here, finding a lack of discussion of the term "operating system" in the specification of the '471 patent. *Id.* at 27-28. Accordingly, the ALJ construed the term "operating system" as having its plain and ordinary meaning of "software that manages hardware resources of the digital device." *Id.* at 28.

As pointed out by the ALJ, Flashpoint attempts to cram as much into the "image processing subsystem" as possible, and at the same time limit the scope of "operating system," while Respondents seek to prevent the kernel from being categorically excluded from the "operating system." *Id.* at 23. While both parties agree that the generally understood meaning of "operating system" include at least the kernel, Flashpoint argues that evidence of a special meaning for the term that excludes the kernel and drivers is implicit in the intrinsic record and the extrinsic evidence. Flashpoint argues that the ALJ's construction, which adopts the general meaning of the term, is inconsistent with the preferred embodiment. According to Flashpoint, in the preferred embodiment, the kernel and device drivers are dependent upon the image processing subsystem, and thus when the processing mode of the image processing subsystem is changed, the kernel and drivers would need to change. Flashpoint argues that, if the term "operating system" include the kernel and drivers, then unavoidably, the "operating system" is also changed, which would be inconsistent with the claimed invention's requirement that "said operating system is independent of said processing mode used by said image processing subsystem." According to Flashpoint, the only plausible way to construct the preferred embodiment disclosed in the '471 patent is to exclude the kernel and drivers from the operating system.

We first address Flashpoint's argument that the specification implicitly gives the term "operating system" a special meaning, and that the ALJ improperly gave the term "operating system" its generally understood meaning before looking to the specification. While we acknowledge that the ALJ's claim construction analysis was not performed in the typical order, after analyzing the specification in detail on our own, we disagree with Flashpoint that the specification gave the term "operating system" a special meaning. We find that the specification contains little discussion of the term "operating system." The specification states that "in the preferred embodiment, CPU 344 runs an operating system capable of providing a menu-driven graphical user interface (GUI) and software image processing. An example of such software is the Digital *Operating Environment* by Flashpoint Technology of San Jose, Calif." JX-1 at 5:49-54 (emphasis added). Flashpoint argues that this statement reveals that the term "operating system" does not have the generally understood meaning, but really means an "operating environment," which is understood in the art not to refer to low level software that directly uses the hardware, such as a kernel and drivers. We do not find Flashpoint's argument persuasive.

As the ALJ recognized, the asserted claims recite "operating system," not "operating environment," and the statement in the specification is only a description of a particular implementation, not a definitional statement. ID at 30.

The specification also states that "[k]ernel 376 provides basic underlying services for the operating system of digital camera 100." JX-1 at 8:4-8. Flashpoint argues that this statement shows that the kernel is not part of the operating system. *Id.* at 8:4-6. Again, we do not find Flashpoint's argument persuasive. The ALJ properly recognized that the statement is most consistent with the standard understanding that the kernel is the core of the operating system, providing a suitable analogy: "the 'underlying support' statement in the specification suggests that the kernel is part of the operating system because it provides the underlying services to the operating system—it is the 'underneath the hood,' if you will, of the operating system." ID at 28.

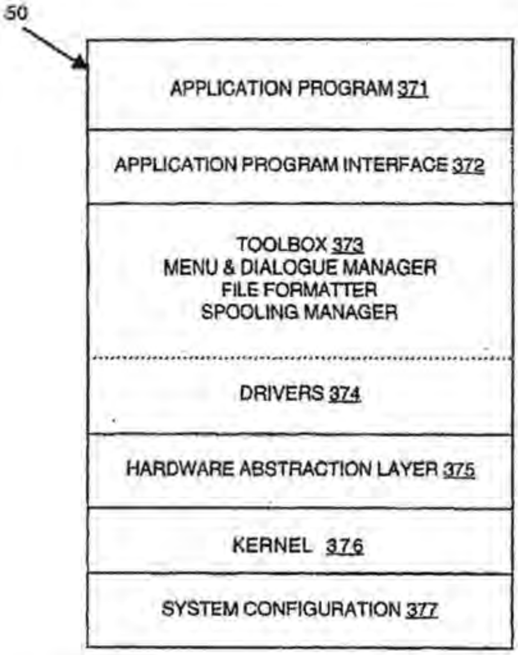
Flashpoint's own witnesses confirmed that the kernel is understood to be the core of the operating system. Flashpoint's expert, Dr. Mangione-Smith, conceded that the kernel is (as the name suggests), "the seed, the center part of the operating system," "[s]o if a computer system in general had a kernel, [he] would expect it to be part of the operating system." Mangione-Smith, Tr. at 454:18-455:9. Mr. Kuo, the first named inventor of the '471 patent, stated that the kernel "is basically the core of an operating system" because "it's the most fundamental part of the operating system." RX-1818C at 119:25-120:9. These admissions confirm that a person skilled in the art would understand the statement about the kernel in the specification to mean that it functions as the core of the operating system. *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1331 (Fed. Cir. 2012) (endorsing reliance on the patentee's expert's admission regarding the ordinary meaning of the claim term).

As for whether the drivers are included within the operating system, we find the intrinsic evidence to be silent. As found by the ALJ, the specification provides minimal discussion of drivers. ID at 28. The specification merely distinguishes the driver from the kernel: "Non-volatile memory 350 includes application program 371, application program interface 372, toolbox 373, *drivers* 374, hardware abstraction layer 375, *kernel* 376, and system configuration 377." '471 patent at 7:40-45 (emphasis added). Drivers are only mentioned in one other passage, discussing Figure 4:

> Drivers 374 are for controlling various hardware devices within digital camera 100, such as the motors used to adjust the lens to change focus. Hardware abstraction layer (HAL) 375 defines a standard interface between toolbox 373/drivers 374 and the implementation hardware specific to the make and model of the digital camera.

Id. at 7:66-8:4. This passage does not mention the operating system and does not provide guidance as to whether or not these drivers are part of the operating system. Moreover, the few references to drivers discussed above are found in the general portion of the specification which does not discuss implementation of different types of image processing subsystems. There is no mention of drivers at all in the portions of the specification that describe the different image processing subsystems and explain how they can be used with the same operating system in the preferred embodiment. ID at 28; '471 patent at 9:3-13:64.

Respondents' experts disagree among themselves on whether drivers are included in the operating system. HTC's expert, Dr. Wolfe, indicated that the drivers were likely outside the operating system in the preferred embodiment. Wolfe, Tr. at 825:25-826:11 ("The best indication I can find in the patent of where the break point between the operating system and not the operating system is at the API 372, Application Program Interface. And my understanding is that the device drivers would be on the other side of that."). Dr. Wolfe, acknowledged, however that "[t]here is a lot of ambiguity in the '471 patent as to what the operating system is." Wolfe, Tr. at 825:6-10. On the other hand, Huawei's expert, Dr. Sonka, testified that the '471 patent shows that drivers are within the operating system in the preferred embodiment. RX-2060.4 at Q/A.506. Referring to Figure 4 of the '471 patent, Dr. Sonka testified that "the term 'operating system' indicates at least the components under the dotted line in Figure 4 [of the '471 patent], which includes the drivers (374), hardware abstraction layer (375), kernel (376) and system configuration (377) . . . . This is also a good representation of what the term "operating system" typically means in the art." *Id.*


50
APPLICATION PROGRAM 371
APPLICATION PROGRAM INTERFACE 372
TOOLBOX 373
MENU & DIALOGUE MANAGER
FILE FORMATTER
SPOOLING MANAGER
DRIVERS 374
HARDWARE ABSTRACTION LAYER 375
KERNEL 376
SYSTEM CONFIGURATION 377

'471 patent, Fig. 4. As such, nothing in the specification indicates to a person of ordinary skill in the art that either the use of drivers, or the placement of drivers inside or outside the operating system, is significant or even relevant to the claimed invention. While a person skilled in the art would understand that the kernel in the specification of the '471 is part of the operating system, the evidence supports a finding that the operating system may or may not include drivers.

We turn to Flashpoint's argument that the ALJ's claim construction conflicts with the objective of the '471 patent, as well as with the preferred embodiment, because it leads to dependence between the operating system and the image processing subsystem. According to Flashpoint, HTC's expert, Dr. Wolfe, acknowledged that the kernel and device drivers in the preferred embodiment of the '471 patent are not part of the claimed "operating system." Flashpoint mischaracterizes Dr. Wolfe's testimony. As cited above, Dr. Wolfe only admitted that in the preferred embodiment, the *device drivers*, as opposed to the kernel, are not part of the operating system. Wolfe, Tr. at 825:25-826:11. Dr. Wolfe's testimony does not indicate that the kernel is outside the operating system and part of the image processing subsystem.

Flashpoint also points to the testimonies of Respondents' experts Dr. Sonka and Dr. Olivier, allegedly showing that in the preferred embodiment of the '471 patent, changes to the hardware in the image processing subsystem would result in changes to the kernel. *Id.* at 25 (citing Sonka, Tr. at 689:13-691:16; Olivier, Tr. at 1132:17-133:17). We find neither of these testimonies to be related to the preferred embodiment of the '471 patent, or strongly support Flashpoint's argument that in the preferred embodiment, changes to the drivers in the image processing subsystem would necessarily result in changes to the kernel. Both Dr. Sonka and Dr. Olivier testified that a person of ordinary skill in the art at the time of the '471 patent would understand that in general, drivers are dependent on hardware. Sonka, Tr. at 689:9-691:18; Olivier, Tr. at 1132:17-133:17. Neither expert testified that changes to the drivers would necessarily result in changes to the kernel. *Id.* While Dr. Sonka did not testify as to changes to the kernel, Dr. Olivier merely testified that a kernel was a "lower level thing" that usually incorporates talking to drivers that typically would, but *may not*, be dependent on a particular driver. Olivier, Tr. at 1132:17-133:17.

Moreover, in arguing that changes to the drivers in the image processing subsystem would necessarily result in change to the kernel, Flashpoint assumes that all hardware components within an image processing subsystem necessarily require device drivers. As the ALJ noted, however, the '471 patent never mentions drivers for any hardware component in an image processing subsystem. ID at 28 ("[T]here is no discussion of the 'other' drivers that Flashpoint argues must be part of the 'image processing subsystem.'"). There are no references to drivers for the JPEG hardware element 924 in the exemplary software/hardware architecture, or for image processing backplane hardware element 1230 in the exemplary hardware architecture. '471 patent at 10:46-13:11. The patent asserts that the claimed data structures provide the necessary interface to the image processing subsystem regardless of its hardware and software components, and does not suggest that additional drivers are necessary for hardware components. *Id.* at 3:11-26.

For the foregoing reasons, we find that the ALJ correctly gave the term "operating system" its plain and ordinary meaning of "software that manages hardware resources of the digital device," and correctly rejected Flashpoint's gloss on this construction requiring the term to exclude the kernel and device drivers. *See* ID at 31. We also find that under this construction, the kernel is part of the operating system while the device drivers may or may not be considered as part of the operating system, depending on whether the device drivers manage hardware resources of the digital device.

3. Infringement

The ALJ found that the accused products do not infringe the asserted claims of the '471 patent because they do not meet the limitation "said operating system is independent of said processing mode used by said image processing subsystem." ID at 95. The ALJ found that the kernel and device drivers of the accused products are part of the operating system under his construction of the term, *i.e.*, "software that manages the hardware resources of the digital device." *Id.* According to the ALJ, Respondents' expert testified extensively on why the Linux kernel is part of the operating system of the accused products. *Id.* at 95-96. The ALJ found that Respondents' expert also testified that the drivers in the accused products are part of both the operating system and the image processing system, making neither system independent of the other. *Id.* The ALJ found Flashpoint's argument to be a rehash of its claim construction arguments, which the ALJ did not adopt. *Id.* Accordingly, the ALJ found that Flashpoint has not shown infringement of the asserted claims of the '471 patent. *Id.* The ALJ did not reach whether the accused products meet the remaining limitations of the accused device.

Flashpoint argues that the ALJ applied an incorrect claim construction of the term "operating system." Flashpoint argues that applying its interpretation of the term "operating system" in the context of the '471 patent (*i.e.*, the term does not include the software that directly interact with or control the hardware), the record evidence establishes that the Linux kernel on which the Android operating system is built is separate from the Android operating system. Flashpoint argues that in Respondents accused products, the Android operating system is independent of the "image processing system," [

].

Respondents argue that under the ALJ's construction of "operating system," the accused products cannot infringe because at least the relevant drivers in the kernel are *not* independent of the processing mode of the image processing subsystem, as the asserted claims require.

The crux of the parties' infringement argument turns on the limitation "said operating system is independent of said processing mode used by said image processing subsystem." Determining whether this limitation is met in the accused devices requires determining what constitutes the "operating system" in the devices and what constitutes the "image processing subsystem."

As discussed above, the ALJ correctly gave the term "operating system" its plain and ordinary meaning of "software that manages hardware resources of the digital device" and correctly rejected Flashpoint's gloss on this construction requiring the term to exclude the kernel and device drivers. Under this construction, the kernel, which provides basic underlying services for the operating system, is part of the operating system while device drivers may or may not be considered part of the operating system, depending on whether the device drivers manages hardware resources of the digital device.

We agree with the ALJ that in the accused devices, the Linux kernel and the relevant drivers within the Linux kernel are part of the Android operating system. Respondents presented detailed expert testimony that the relevant drivers in the Linux kernel in the accused devices manage hardware resources of those devices. RX-2060.4C at Q/A.506-24; RX-2172C at Q/A.174-93; RX-2184C at Q/A.172-83, 194, 205. Specifically, HTC's expert Dr. Olivier testified that in the accused HTC devices, [

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[

]

RX-2172C at Q/A.174-75. Huawei's expert Dr. Sonka similarly testified that the operating system used by Huawei's devices includes[

] RX-2060.4C at Q/A.506.

ZTE's expert Dr. Medvidovic also similarly testified that in the accused ZTE devices, [

]. RX-2185C at Q/A.173-74.

Flashpoint argues that the Linux kernel is separate from the Android operating system by pointing to a statement in an Android marketing document that "Android is built on the Linux kernel, but Android is not Linux." Flashpoint Resp. at 32 (citing CX-518.0005). We do not find

Flashpoint's argument persuasive. As explained by Respondents' expert, while in casual, non-technical usage, such as in a marketing document, it is not unusual to refer to Android as an "operating system," one of skill in the art would not consider that to be a correct usage of the term. RX-2064.4C at Q/A.530. Operating systems, both as generally understood and in the context of the '471 patent, are software that control the system hardware and provide a buffer between the user and the low-level interfaces to the hardware within a system. *Id.* Android, on the other hand, is a software platform that was developed as a user-interface and application development platform layer on top of the operating system, in this case Linux. *Id.* On handheld devices such as Huawei's accused devices, [

]. *Id.*

Indeed, Flashpoint's own expert repeatedly characterized the Linux kernel as part of the operating system. Dr. Mangione-Smith was asked how the accused data structure "provide[s] an interface between the operating system and the image processing subsystem." CX-614C at Q/A.184 (emphasis added). In response, Dr. Mangione-Smith testified that the data structure provides an interface between the Android kernel (*i.e.* the Linux kernel) and the image processing subsystem:

> [
>
>]

CX-614C at Q/A.184 (emphasis added); *see also* RX-2184C at Q/A.205-08 (Dr. Medvidovic's testimony confirming that Dr. Mangione-Smith "twice identifies the kernel as a component of the operating system."). Accordingly, we find that the Linux kernel is part of the "operating system" in the accused devices.

Turning to the limitation "image processing subsystem," the ALJ construed "image processing subsystem" to require "hardware, software, or a combination of hardware and software for processing captured raw image data and compressing the processed image data." ID at 36. The record shows that each of Respondents' accused products [

]. CX-614.1C at Q/A.244-49, 256-61, 394, 418-21, 541, 557-58, 568-74. As Flashpoint's expert admitted during the hearing, the accused products [

]. Mangione-Smith, Tr. at 276:24-278:3, 371:13-17, 374:9-13; 478:22-479:6; RX-2172 at Q/A.126-30; RX-2184C at Q/A.155; *see also* ID at 94.

The undisputed evidence also showed [

]. RX-2060.4C at Q/A.523; RX-2172C at Q/A.182-193; RX-2184C at Q/A.188-92, 194-96; Sonka, Tr. at 1394:23-1398:19; Medvidovic, Tr. at 1094:17-1095:19; *see also* ID at 94. In other words, to change the processing mode of the image processing subsystem, it would be necessary to "rebuild the operating system kernel from scratch." Medvidovic, Tr. at 1089:25-1095:19; *see also* ID at 96. Therefore, the operating system in the accused devices is not independent of the image processing mode, as required by the asserted claims of the '471 patent, and the accused products do not infringe. Thus, the Commission has determined to affirm the ALJ's finding that the accused products do not infringe the asserted claims of the '471 patent.

4. Technical Prong of the Domestic Industry Requirement

Before the ALJ, Flashpoint argued that its licensed Motorola Admiral smartphones using Motorola's Android operating systems practice the asserted claims (claims 1, 2, and 4) of the '471 patent. Flashpoint also argued that its licensed Apple iPhone 4S and 5S smartphones using Apple's iOS 6 operating system practice claims 1-5, 8, and 10 of the '471 patent.

The ALJ found that complainant has not shown that the licensed Motorola and Apple smartphones practice any of the asserted claims. ID at 178-80. The ALJ used the same reasoning as he did for infringement, finding that the licensed products do not have an "operating system" that is independent of the image processing subsystem under the ALJ's construction of the term "operating system." *Id.* For the Apple smartphones, the ALJ found [

]. *Id.* at 179. For the Motorola smartphones, the ALJ found that the same reasoning applied. *Id.* at 180.

Flashpoint argues that the ALJ applied an incorrect claim construction of the term "operating system," and under Flashpoint's construction, the iOS operating system in the licensed Apple smartphones constitutes the "operating system" of the asserted claims. Flashpoint Br. at 37-41. With respect to the licensed Motorola devices, Flashpoint uses the same infringement contentions for the accused products. *Id.* at 41-44.

We find that the ALJ correctly found that Flashpoint has not shown that the licensed Apple and Motorola products practice the '471 patent for the same reason the accused products do not infringe: the operating system in each of those products is not independent from the image processing subsystem. *See* ID at 178-180. Under the proper construction of the term "operating system," the operating system in the licensed Apple devices [ ]*See* RX-2175C at Q/A.116, 121-24; RX-2169 at 7-8, 45, Fig. I-1. The record shows that [

]. RX-2172C at Q/A.253; RX-2184C at Q/A.531, 534, 536; Tr. at 352:4-353:9; CX-484C at 34. [

] RX-2175C at Q/A.96-97, 122-24; *see also* RX-2172C at A253; RX-2184C at Q/A.536. In other words, a hypothetical change [ ]would require a change to the operating system. RX-2184C at Q/A.536. Accordingly, the ALJ correctly found that the licensed Apple devices do not practice the claims of the '471 patent. ID at 178-80.

The Motorola Admiral is an Android device, which the parties agree is similar in relevant respects to the accused products. *Id.* at 180. Expert testimony shows that [

]. RX-2184C at Q/A.573-77. Accordingly, the ALJ correctly found that the Admiral does not practice the '471 patent. *Id.* at 180.

For the foregoing reasons, we affirm the ALJ's finding that Flashpoint has not satisfied the technical prong of the domestic industry requirement with respect to the licensed Apple and Motorola products.

5. Validity

Before the ALJ, Respondents argued that the asserted claims of the '471 patent are anticipated by U.S. Patent No. 5,687,376 to Celi, Jr. *et al.* ("Celi"). The Celi patent, issued on November 11, 1997, is prior art to the '471 patent under at least 35 U.S.C. § 102(b). RX-923. Celi was considered in combination with various other references during an *ex parte* reexamination of the '471 patent (U.S. Serial No. 90/012,246). The Celi combinations put forth by Respondents were analyzed and overcome during the reexamination.

The ALJ found that because Respondents' anticipation argument is based on Flashpoint's construction of the term "image processing system" of independent claim 1 and because the ALJ did not adopt Flashpoint's construction of the term, Respondents have failed to show that the asserted claims of the '471 patent are anticipated by Celi. ID at 209.

On December 16, 2013, the Commission determined to review the ALJ's invalidity finding with respect to the Celi and requested briefing from the parties. 78 *Fed. Reg.* 77490. In response to the Commission's briefing request, Respondents acknowledged that Celi does not anticipate the asserted claims of the '471 patent under the ALJ's construction of "image processing system." Accordingly, the Commission has determined to affirm the ALJ's finding that the '471 patent is not invalid in view of Celi.

C. The '190 Patent

1. The Invention of the '190 Patent

The '190 patent, entitled "Method And System For Producing An Internet Page Description File On A Digital Imaging Device," issued on April 24, 2001 to Aihara *et al.* JX-10. The invention is directed to a method and system for capturing images and generating an HTML file that includes or references the captured images. The invention is carried out by a script provided to the digital camera. The script includes a directed image capture sequence as well as a set of predefined formatting commands which are adapted to create an HTML file with a certain desired appearance. The camera executes the script to display interactive instructions that prompts the user to perform specific operations such as taking a picture and entering descriptive information for the picture. Pursuant to the script, the camera then generates an HTML file referencing the resulting images.

FIG. 8 is a flow chart illustrating an exemplary process of installing and running a script in accordance with one embodiment of the invention:

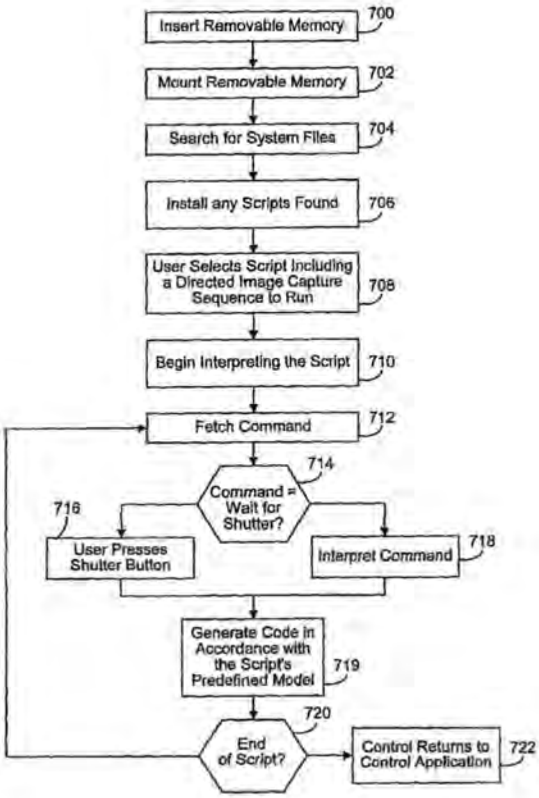

Insert Removable Memory
700
Mount Removable Memory
702
Search for System Files
704
Install any Scripts Found
706
User Selects Script Including a Directed Image Capture Sequence to Run
708
Begin Interpreting the Script
710
Fetch Command
712
714
Command = Wait for Shutter?
716
User Presses Shutter Button
Interpret Command
718
Generate Code in Accordance with the Script's Predefined Model
719
720
End of Script?
Control Returns to Control Application
722

FIG. 8

The process begins by inserting a removable memory 354. The operating system searches for system files on the removable memory 354, which alert the digital camera 110 to the presence of an external program. Any system files found on the removable memory 354 and corresponding directed image capture sequences 618 and associated formatting commands are then installed and made available to the user for selection via menu choices that appear on the LCD screen 402.

Once the list of available scripts is displayed, the user selects one to run. The list showing the available scripts may be categorized in menus for easier selection. For example, assume a real estate agent has three different scripts for capturing images of different types of properties. The agent may name or create categories for the directed image capture sequences called "commercial," "industrial," and "residential." Selecting the residential category, for example, will cause a list of directed image captures to be displayed that are designed to capture pictures of different types of residential properties, such as one, two, and three bedroom homes. The user may then select a desired script depending on the particular house to be shot.

After the user selects a particular script to run, the script interpreter 610 begins interpreting the directed image capture sequence 618, and control is passed from the control application 602 to the script. The script interpreter 610 then fetches the first command comprising the directed image capture sequence 618. The script also opens a new HTML file, in which the user entered information, HTML commands, and the like are to be stored. When a picture is taken, the picture is tagged with formatting HTML codes which describe its location on the web page. If information is entered by the user, the information (*e.g.*, ASCII text) is similarly tagged with formatting HTML codes. Thus, one or more formatted HTML files are generated as the user progresses through the script. The script continues to execute, with new commands being fetched from memory, until the end of the script is reached. Once the end of the script is reached, the one or more HTML files are closed and saved. Once control has been returned to the user, the one or more completed, formatted HTML files are available to the user for downloading and storage.

The asserted claim of the '190 Patent is independent claim 13:

> 13. In a hand-held digital imaging device including a display, a system for generating a formatted document including text and images, comprising:
>
>> a set of program instructions which, when executed, cause the hand-held digital imaging device to perform the steps of:
>>
>> a) displaying interactive instructions on the display that prompt a user to perform specific operations;
>>
>> b) in response to the user performing the specific operations, automatically updating the interactive instructions, such that the

> user is guided through a sequence of the interactive instructions adapted to capture information from the user;
>
> c) transferring the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device.

2. Infringement

Before the ALJ, Flashpoint argued that the accused products infringe claim 13 because each of the representative HTC, Huawei, and ZTE devices, *i.e.*, the HTC Vivid, Huawei U8800, and ZTE Z431, contains a digital camera, displays a sequence of instructions which automatically update to capture information from the user, and incorporates the ability to generate a Multimedia Messaging Service ("MMS") message including both the captured information and desired display information, in accordance with the MMS protocol defined by the Open Mobile Alliance ("OMA").

Specifically, Flashpoint argued that the accused products meet the limitation "transfer the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device." According to Flashpoint, when the user presses the "send" button in the messaging application after composing the MMS message, the accused device transfers the text and images into a format defined by the OMA MMS standard, *i.e.*, the OMA MMS Protocol v1.2. According to Flashpoint, the OMA MMS Protocol v1.2 requires that the MMS messages be structured in a "slide show," with each slide containing a text region and another region containing either an image or video. According to Flashpoint, the MMS messages are formatted using a SMIL (an XML language similar to HTML) presentation part, which contains data about how the MMS message may be displayed to a user of the recipient information.

The ALJ found that the accused products do not infringe claim 13 of the '190 patent because they do not meet the limitation "wherein the formatted document is formatted in accordance with a predefined model." ID at 57. The ALJ construed the term "formatted document" to mean "a document including text, images, and instructions on the appearance of the image and text for display that is readily interchangeable among users using a variety of computer implemented methods." *Id.* In his claim construction analysis, the ALJ pointed out that both parties agree that a "formatted document" includes text, images, and instructions on how to assemble the image and text for display. *Id.* at 53. The ALJ construed the term "predefined model" to mean "a preexisting set of commands that aid the automatic generation of the document and control the formatting of a document as it is being generated, thereby determining the appearance of a formatted document." *Id.* at 63.

In his infringement analysis, the ALJ found that Flashpoint has not shown that the "formatted document" limitation is met because it failed to show that the accused devices contain instructions on how to assemble the image and text *for display* in the MMS message sent by the user. *Id.* at 101 (emphasis in original). According to the ALJ, it was insufficient for Flashpoint to rely on the OMA MMS Protocol v1.2 as evidence that the formatted MMS message includes the desired display information because the referenced protocol explicitly identifies the "presentation part" as *optional*. *Id.* (emphasis in original). The ALJ found that the formatting is entirely dependent on the instructions contained in the receiving device, rather than the sending device. *Id.* at 101-02. For the same reason, the ALJ found that Flashpoint has not shown that the "predefined model" limitation is met because the OMA MMS v1.2 protocol defines the "presentation part" as optional. *Id.* at 102. The ALJ also found that the lack of any formatting imposed by the MMS protocol is demonstrated by the fact that the MMS messages generated by the accused products may be displayed differently across different recipient devices, and because the sender of the message can decide how to lay out the text and images of an MMS message when creating it. *Id.* at 103.

Flashpoint argues that the ALJ did not consider the source code evidence presented by Flashpoint. According to Flashpoint, the source code in the accused products[

].

Respondents argue that Flashpoint fails to show that any source code it pointed to in its expert testimony is actually running on the accused devices. According to Respondents, the

OMA MMS Encapsulation Protocol document, on which Flashpoint relied to contend that all MMS messages contain SMIL, actually states that the SMIL presentation part is optional. Respondents also argue that even if the SMIL presentation part is included in the generated MMS message, Flashpoint has failed to show that the SMIL presentation part has instructions for how text and images are to be displayed, as required by the ALJ's construction of "formatted document." Respondents argue that it is the receiving device—not anything generated by the sending device (*i.e.*, the accused products)—that determines the appearance of the MMS message when displayed. Respondents further argue that the accused products do not contain the "pre-existing set of commands" required by the ALJ's construction of "predefined model." According to Respondents, the "OMA standards" alleged by Flashpoint to constitute the "predefine model" are not a "pre-existing set of commands" that controls the formatting and thereby determines the appearance of MMS messages.

We agree with the ALJ that Flashpoint has not shown that the accused products meet the limitation "wherein the *formatted document* is formatted in accordance with a *predefined model*." Flashpoint's infringement position for the limitation is that [

]. Thus, according to Flashpoint, the generated MMS message, [ ], is a "formatted document," *i.e.*, "a document including text, images, and instructions on the appearance of the image and text for display that is readily interchangeable among users using a variety of computer implemented methods." *See* ID at 57.

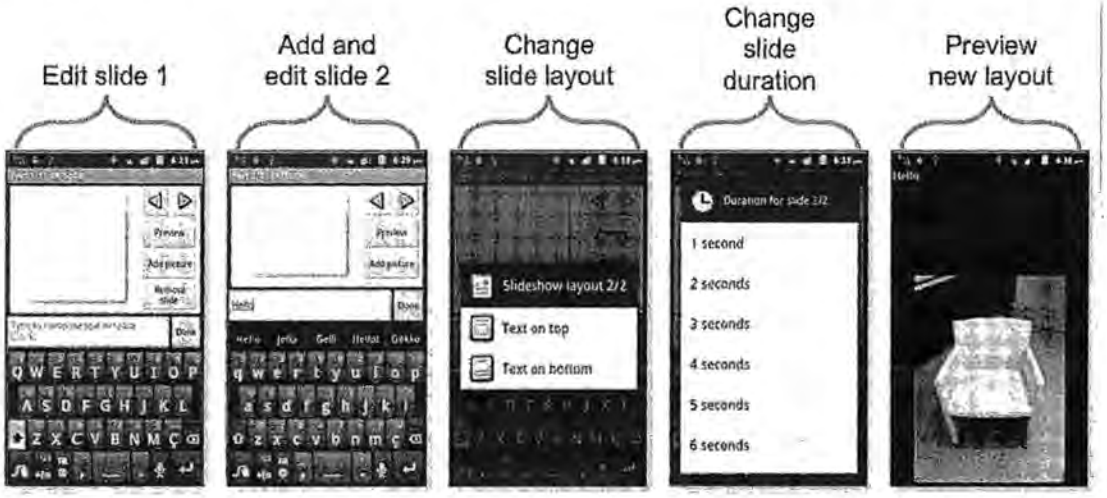
It is not clear, however, what Flashpoint alleges to be the "predefined model," which the

ALJ construed to mean "a preexisting set of commands that aid the automatic generation of the document and control the formatting of a document as it is being generated, thereby determining the appearance of a formatted document." *Id.* at 63. In its post-hearing brief, Flashpoint appeared to argue that it is the SMIL presentation part itself that serves as the "predefined model," because it is defined by the OMA MMS v1.2 protocol. In its response to the Commission, however, Flashpoint deviated from its previous argument by explicitly stating that [ ] In other words, Flashpoint argues that[ ], the source code itself is a "predefined model."

We find that Flashpoint has not shown that the source code files on the accused devices, [ ], meets the limitation "wherein the formatted document is formatted in accordance with a *predefined model*." In construing the term "predefined model," the ALJ explained that the term means more than simply a set of generic commands that defines the appearance of a document, such as the HTML language. ID at 59. According to the ALJ, it defies common usage to call the HTML language as a whole the claimed "predefined model." *Id.* Rather, according to the ALJ, the term requires a pre-existing way of arranging those commands. *Id.* at 59-60. The ALJ pointed out that during reexamination of the '190 patent, Flashpoint stated that "the predefined model is more than simply the resulting formatting," but rather "a set of commands that cause the formatted document to be generated with the *desired* formatting." *Id.* at 60 (citing JX-12.6132-33) (emphasis added).

Here, the only basis for Flashpoint's argument that the source code is a predefined model is[ ] Flashpoint has not shown,[ ]. As pointed out by Respondents, Dr. Mangione-Smith provided no analysis[ ]. RX-2184C at Q/A.386. Just as it is contrary to common usage to call the HTML language as a whole a "predefined model," it similarly contradicts common usage to call the SMIL language a "predefined model." The ALJ's construction of "predefined model" requires more than a set of instructions that defines the appearance of a document. *Id.* at 59-60. It requires a pre-existing way of arranging those instructions. *Id.* Flashpoint has not shown that [ ]. As explained by ZTE's expert, Dr. Medvidovic, the accused devices [ ]. RX-2184 at Q/A.325, 319-20, 329.

By contrast, Respondents presented compelling evidence that a user of the accused products—not any predefined model—determines the desired formatting of MMS messages. RDX-5212 below shows that a user can change the slide layout, as he or she is generating the message, to position text above or below a slideshow, and the slide duration for the MMS message being generated; the formatting is not controlled by any pre-existing set of commands.


Edit slide 1
Add and edit slide 2
Change slide layout
Change slide duration
Preview new layout
Preview
Add picture
Remove slide
Done
Hello
Slideshow layout 2/2
Text on top
Text on bottom
Duration for slide 2/2
1 second
2 seconds
3 seconds
4 seconds
5 seconds
6 seconds

RDX-5212; Mangione-Smith, Tr. at 381:17-24; RX-2184C at A326 (testifying about RDX-5212), RX-2173C at A304, RDX-4007C at 18. This evidence shows that the user can control the formatting while the MMS message is being generated and establishes that there is no "pre-existing set of commands" that "control[s] the formatting of the document as it is being generated," as required by the ALJ's construction. Moreover, Flashpoint admits in its briefing to the Commission that [

].

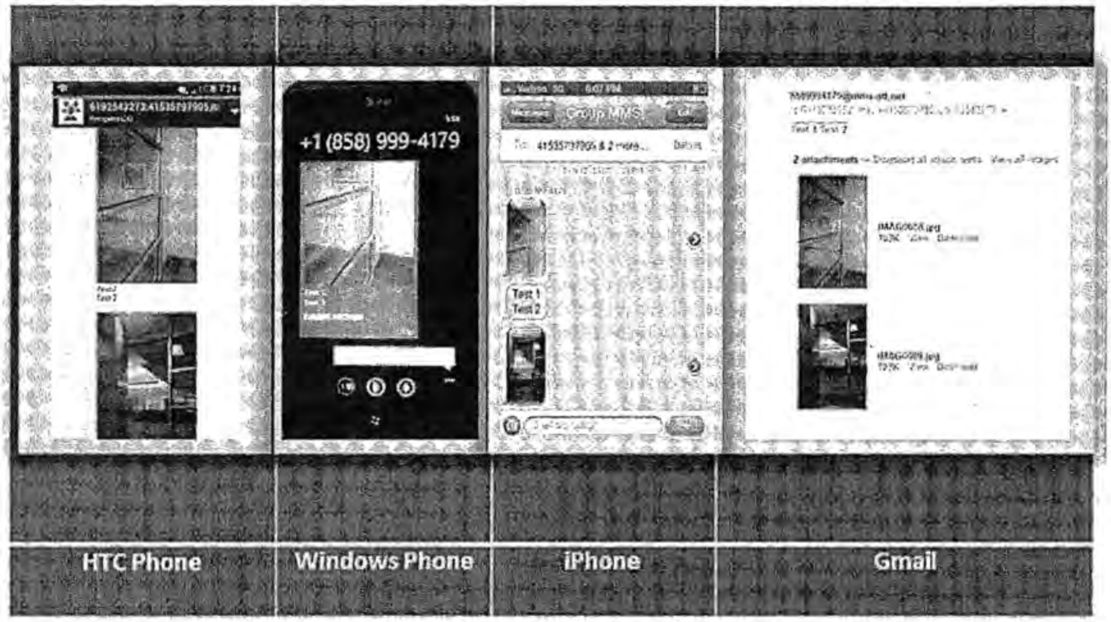
Flashpoint argues that the ability of the user to choose the message layout in the accused products is consistent with the preferred embodiment described in the '190 patent specification in which the user is able to choose (*e.g.*, from a menu) a particular predefined script to run, which in turn generates a formatted document in accordance with the user's choice and the script's predefined model. We do not find Flashpoint's argument persuasive. The '190 patent makes clear that "[t]he creator of the script develops the model in accordance to particular requirements to which the script is designed," and the scripts and "associated models are then installed and made available to the user for selection." '190 patent at 3:13-15, 11:9-11. Thus, the script's creator—not the user—makes the individual formatting decisions in the '190 patent prior to the formatted document being generated. The user's ability to individually choose formatting details as the document is being generated in the accused products is significantly different from a user's picking a "set of predefined instructions and formatting commands" that imposes the formatting in the '190 patent claims. In sum, while the user in the '190 patent selects from among predefined models, in the accused products none is available to be selected—the user can only format the MMS message feature-by-feature by making a series of choices while the document is being generated. *See* '190 patent at 3:10-13; ID at 103; Mangione-Smith, Tr. at 381:17-24; RX-2184C at Q/A.326; RDX-5212; RX-2173C at Q/A.304; RDX-4007C at 18.

In finding the asserted claims not infringed, the ALJ reasoned that the OMA MMS Protocol v1.2 explicitly identifies the "presentation part" as *optional* and that Flashpoint presented no evidence that this optional feature is actually used in the accused products. ID at 101 (emphasis in original). We disagree with the ALJ on this particular point. We find that it is more likely than not that [

]

We find, however, that the source code evidence does not affect the ALJ's ultimate determination that the accused products are not "wherein the formatted document is formatted in accordance with a predefined model." As explained above, Flashpoint has not shown that the source code in the accused devices, [

] constitute a "predefined model," as that term is construed by the ALJ. Moreover, in finding non-infringement, the ALJ also reasoned that the formatting of MMS messages sent by the accused devices is dependent on the formatting instructions contained in the receiving device, rather than the sending device. ID. at 101-02. The ALJ cited evidence showing that the MMS message may be displayed differently across different receiving devices. *Id.* For example, the following is a demonstrative showing that the same MMS message (*i.e.,* the same images and texts) sent from the messaging application is assembled differently depending on the computer implemented method used for display in the recipient device:



RDX-4007.7; RX-2173 at Q/A.273.

Flashpoint argues that the ALJ conflates how MMS messages are *displayed* on recipient devices with the manner in which the MMS messages are automatically *generated* by the (sending) accused products. Flashpoint argues that in so doing, the ALJ improperly imported a new limitation into independent claim 13, thereby requiring that MMS messages be displayed uniformly across recipient devices. We disagree with Flashpoint. The ALJ did not err in finding non-infringement based in-part on the fact that the MMS messages generated by the accused products may be displayed differently across different recipient devices. In so doing, the ALJ did not import a new limitation into claim 13 requiring that MMS messages be displayed uniformly across devices. Under a reasonable reading of the ID, the ALJ was using the fact that the MMS messages are displayed differently among receiving devices as circumstantial evidence that the MMS messages generated by the sending device are not formatted according to a predefined model. The ALJ never held that the formatting of the MMS message depends *entirely* on the formatting instructions of the receiving device. As explained above, the user of the sending device does determine some formatting issues as the message is being generated, such changing the slide layout, to position text above or below a slideshow, and the slide duration for the MMS message being generated. RDX-5212; Mangione-Smith, Tr. at 381:17-24; RX-2184C at Q/A.326 (testifying about RDX-5212), RX-2173C at Q/A.304, RDX-4007C at 18.

For the foregoing reasons, we find that Flashpoint has not shown that the accused products meet the limitation "wherein the formatted document is formatted in accordance with a predefined model." The Commission has determined to affirm the ALJ's finding of non-infringement.

4. Technical Prong of the Domestic Industry Requirement

Before the ALJ, Flashpoint argued that the licensed Apple iPhone 4S and 5S smartphones using Apple's iOS 6 operating system practice the asserted claim 13 of the '190 patent. Flashpoint argued that the Apple Devices transfer "the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device," as required by claim 13 of the '190 patent.

The ALJ found that Flashpoint has not shown that this limitation is met. The ALJ found that Flashpoint has not shown that in the Apple devices, the formatted documents "have instructions regarding how to assemble text and image for display" or that the formatted documents are "formatted with a set of commands that determine the appearance of the formatted document." ID at 182. The ALJ reasoned that the appearance of the MMS message sent by the Apple devices is not determined by a predefined model because the same MMS message sent from an Apple device has a significantly different appearance depending on the recipient device. *Id.*

Flashpoint argues that the ALJ did not fully consider the source code evidence and the testimony of Apple's engineer regarding the source code. Specifically, Flashpoint presented the testimony of [

]

We find that Flashpoint provided more detailed evidence to support its technical prong argument with respect to the Apple domestic industry products as compared to the evidence it provided to support its infringement contention with respect to the accused Android products. Despite the detailed evidence provided by Flashpoint's regarding Apple's source code, we find Flashpoint's argument with respect to the "formatted document" / "predefined model" limitation is nevertheless similar to its infringement contention for that limitation. Flashpoint essentially contends that the Apple iPhone 4S meets the limitation because it generates MMS messages in accordance with the OMA MMS standard, which it alleges to be the "predefined model." According to Flashpoint's expert, Dr. Mangione-Smith, [

.] Dr. Mangione-Smith stated that "when the user completes the interactive instructions and presses the send key, the Apple iPhone 4S will format the document according to the model set forth in the OMA MMS standard." *Id.* We find, however, that contrary to Flashpoint's assertion, the testimony of [

] never purports to claim that the resulting MMS message is a "formatted document" or formatted according to a "predefined model." Flashpoint's argument assumes that the OMA MMS standard constitutes "a predefined model," as the term is construed by the ALJ, which is unsupported.

We find that the OMA standard is not a "pre-existing set of commands" that controls the formatting and thereby determines the appearance of MMS messages, as required by the ALJ's construction of the term "predefined model." *See* ID at 63. As Respondent's expert Dr. Medvidovic explained in his witness statement, [

]. In other words, the OMA protocol enables the sharing of MMS messages with other devices, but does not specify a way of arranging the appearance of the MMS message. RX-2184C at Q/A.319; *see also id.* at Q/A.320, A325, A329.

We note that, unlike its infringement argument, Flashpoint does not assert that [

]. Nevertheless, we do not find that the SMIL part constitutes a "predefined model." [

], the ALJ's construction of

"predefined model" requires more than a set of instructions that defines the appearance of a document. ID at 59-60. It requires a pre-existing way of arranging those instructions. *Id.* Neither has Flashpoint shown that[

]. Thus, the Commission has determined to affirm, with modifications, the ALJ's finding that the licensed Apple products do not meet the limitation "wherein the *formatted document* is formatted in accordance with a *predefined model*" and thus has not proved the technical prong of the domestic industry requirement with respect to the asserted claim of the '190 patent.

5. Validity - The Saito Reference

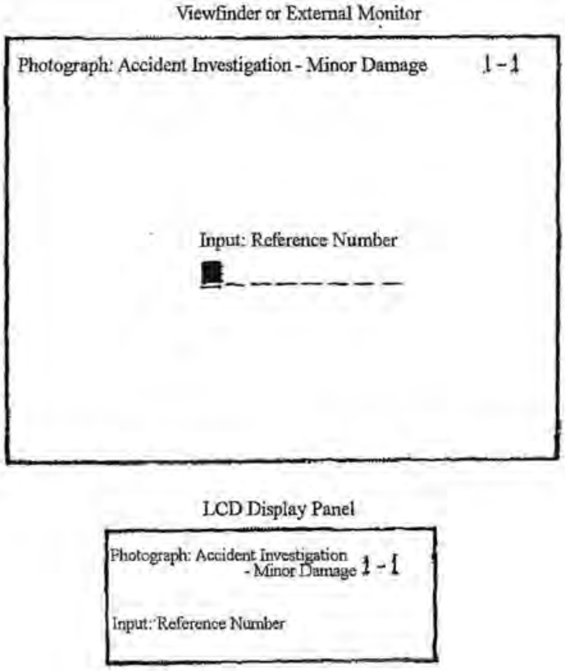
Before the ALJ, Respondents argued that the asserted claim of the '190 patent is anticipated or rendered obvious by Japanese Laid-Open Patent Application No. H09-298678 to Kazu Saito ("Saito") (RX-1236 and RX-1264 (translation)). Saito was filed on April 26, 1996 and published on November 18, 1997, before the alleged conception date of the '190 patent of January 19, 1998, and qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a). The PTO did not considered Saito during any prosecution or reexamination proceedings for the '190 patent.

The ALJ found that the Saito reference does not anticipate or render obvious the asserted claim of the '190 patent because it does not disclose the limitation "in response to the user performing the specific operations, automatically updating the interactive instructions, such that a user is guided through a sequence of interactive instructions adapted to capture information from the user." ID at 142. The ALJ stated that "the sequence that Saito prompts is of the same type of forms specifically disclaimed by the applicant during reexamination." *Id.*

While the Commission finds that the ID does not clearly explain why Saito does not disclose a sequence of instructions, we nevertheless agree with the ALJ that Respondents have not shown by clear and convincing that Saito anticipates the claim 13 of the '190 patent.

Saito discloses a digital still camera that executes scripts to display various instructions to the user, prompting the user to enter information and to take photographs. The Saito camera displays instructions that prompt the user to input, for example, a reference number. RX-1264 at [0017]; Porter, Tr. at 662:14-18. As shown in Figure 7 below, what the user sees in the center of the screen of the viewfinder is one instruction only: "Input: Reference Number." RX-1264 at [0017], Fig. 7. Below the instruction is a character input area with a blinking cursor:

FIG. 7

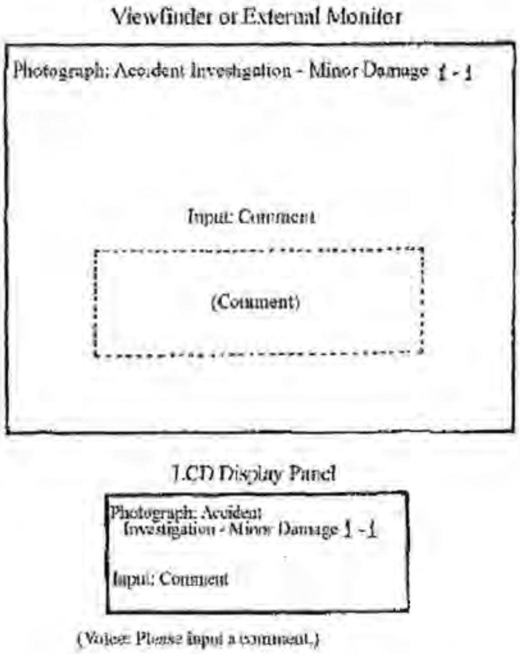

Viewfinder or External Monitor
Photograph: Accident Investigation - Minor Damage
1 - 1
Input: Reference Number
LCD Display Panel
Photograph: Accident Investigation - Minor Damage
1 - 1
Input: Reference Number

(Voice: Please input a reference number.)

Id.

Saito states that "[o]nce all of the input is completed, pressing the start switch 41 transitions to the next step," and the camera screen displays a new instruction "'input: comment' enabling the input of a comment." RX-1264 at [0018], Fig. 8. The user is then prompted to input a comment:

FIG. 8


Viewfinder or External Monitor
Photograph: Accident Investigation - Minor Damage 1 - 1
Input: Comment
(Comment)
LCD Display Panel
Photograph: Accident Investigation - Minor Damage 1 - 1
Input: Comment
(Voice: Please input a comment.)

Id. When the user completes inputting a comment by pressing the start switch, the camera transitions to the next step. Thus, the Saito reference clearly discloses the limitation "displaying interactive instructions on the display that prompt a user to perform specific operations" of claim 13.

The Saito camera creates a "relation file" containing text from the user, references to images, and other formatting information. RX-1084.4C at Q/A.148; Stevenson, Tr. at 1468:1-3, 1469:5-1472:19, 1480:25-1481:23. The user can transmit this relation file via a public telephone line or by mounting the camera's removable memory card to a personal computer, which interprets the relation file to display the user information and photographs in a particular layout. RX-1084.4C at Q/A.148. Thus, the Saito reference also discloses the limitation "transferring the information captured from the user to a formatted document" of claim 13.

We find, however, Respondents have not shown by clear and convincing evidence that the Saito reference discloses the limitation "in response to the user performing the specific operations, automatically updating the interactive instructions." In Saito, the interactive instructions are not automatically updated in response to the user following the displayed instructions. According to Flashpoint's expert Dr. Stevenson, Saito teaches that any instructions on the display remain unchanged until the user presses a "start" hardkey. CX-743C at Q/A.322. The Saito camera waits in standby until the "start" hardkey is pressed, and Saito does not disclose any instruction on the screen prompting the user to press the start switch. RX-1264 at [0015]; Stevenson, Tr. at 1535:13-18. Respondents' expert Dr. Porter admits that the start switch itself is not an interactive instruction, as the start switch is a physical hard button that is not displayed "on the display" of the Saito device, as required by independent claim 13. Porter, Tr. at 664:7-18. Thus, Saito teaches that the instructions update in response to the start switch 41 being pressed--not "in response to the user performing the specific operations" that are prompted by "interactive instructions," as required by claim 13. CX-743C at Q/A.322. Accordingly, Saito does not disclose each element of claim 13. Respondents also do not offer additional evidence on whether this missing limitation would be known in the prior art. Thus, the Commission has determined to affirm, with modifications, the ALJ's finding that the Saito reference does not anticipate or render obvious the asserted claim of the '190 patent.

6. Validity - The Parulski-963 Reference

Before the ALJ, Respondents also contended that the asserted claim of the '190 would have been anticipated or rendered obvious by U.S. Provisional Patent Application 60/037,963 to Parulski ("Parulski-963"). RX-675. Parulski-963 is a published application, and its filing date (February 20, 1997) predates the earliest claimed invention date of the '190 patent (January 19, 1998) and its filing date (April 13, 1998). Accordingly, Parulski-963 qualifies as prior art under pre-AIA 35 U.S.C. § 102(e).

The ALJ did not reach this issue in substance. Rather, the ALJ stated that "the ALJ finds Respondents' arguments inapposite to the extent they rely on Flashpoint's infringement contentions since the ALJ found those unpersuasive." ID at 144.

The Commission has determined to take no position on the ALJ's finding of invalidity with respect to the Parulski-963 reference.

7. Validity – Zaurus

Before the ALJ, Respondents further contended that the asserted claims of the '190 patent would have been anticipated or rendered obvious by the Color Zaurus reference under Flashpoint's constructions. RX-679. The Color Zaurus reference was published on August 15, 1996, which predates the earliest claimed invention date of the '190 patent (January 19, 1998) and its filing date (April 13, 1998). Accordingly, Color Zaurus qualifies as prior art under pre-AIA 35 U.S.C. §§ 102(a) and (b).

The ALJ did not reach this issue in substance. Rather, the ALJ stated that Respondents' invalidity analysis for Zaurus depends on Flashpoint's infringement argument for the '190 patent. ID at 145.

The Commission has determined to take no position on the ALJ's finding of invalidity with respect to the Zaurus reference.

D. "On-Sale" Bar

Under pre-AIA 35 U.S.C. § 102(b), a patent is invalid "if the invention was patented or described in a printed publication in this or a foreign country or in public use or *on sale* in this country, more than one year prior to the date of the application for patent in the United States." The on-sale bar applies when two conditions are satisfied before the critical date. *Pfaff v. Wells Elecs.*, 525 U.S. 55, 67-68 (1998). The product must be the subject of a commercial offer for sale, and the invention must be ready for patenting. *Id.* According to the Supreme Court, the "ready for patenting" condition "may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention." *Id.*

Before the ALJ, Respondents argued that [ ]was offered for sale[ ]and that the offers for sale correspond to each of the '471, '190, and '538 patents. [ ]The ALJ found that Respondents have failed to show by clear and convincing evidence that any of the claimed inventions were ready for patenting. ID at 156. The ALJ first found that many of Respondents' statement were conclusory in nature. *Id.* The ALJ also found that even if he were to accept the Respondents' conclusory statements as true, Respondents failed to show how the commercial offers for sale relate to the asserted patents. *Id.* According to the ALJ, Respondents failed to explain how the inventions claimed in each of the '471, '190, and '538 patents relate to the [ ]that was offered for sale. *Id.* The ALJ rejected Respondents' reliance on contemporaneous documents showing the same features that are allegedly covered by the asserted patents as evidence that those features are the actual inventions claimed in the asserted patents. *Id.* According to the ALJ, "the mere citation to contemporaneous documents, without, at a minimum, any citations to any evidence as to whether the inventors actually had any knowledge or reviewed these documents, [is] unpersuasive." *Id.* at 158.

For the reasons provided below, we find that the Respondents have not shown by clear and convincing evidence that the claimed inventions of the asserted patents were ready for patenting prior to the critical date.

1. The '471 Patent

Respondents argue that the alleged invention of the '471 patent was ready for patenting [

]Mr. Eric Anderson, who is a co-inventor of the '471 patent and was Chief Architect and Camera Software Manager in Apple's Imaging Group at the time, stated that the Flashpoint 1.0 operating system had "all features operable" by March 1996. RX-321.1. Respondents allege that the features of the Flashpoint 1.0 operating system and[ ]are identified in the following documents:[

]

Respondents' expert Dr. Andrew Wolfe testified [ ]shows that claims 1, 2, and 4 of the '471 patent were ready for patenting prior to the critical date. RX-

1017C at Q/A.181-84, 192-203, 225-227, 229. According to Dr. Wolfe, [

]

We find that Respondents have not shown that all features of the claimed invention of the '471 patent can be identified[

]supplies sufficient information to enable a person skilled in the art to practice the claimed invention. Dr. Wolfe's testimony regarding[ ]is based on the presumption that [

] Respondents, however, have not shown that [ ] can even be considered an "image processing subsystem," as the term is construed by the ALJ. Specifically, the ALJ rejected Flashpoint's construction of the term and adopted Respondents' construction, *i.e.*, "hardware, software, or a combination of hardware and software for processing captured raw image data and compressing the processed image data." ID at 32. Dr. Wolfe's analysis of the [ ], however, was based on Flashpoint, rather than Respondents' construction of the term "image processing subsystem." RX-1017C at Q/A.91 ("Unless otherwise noted, I have analyzed the asserted claims under Flashpoint's proposed constructions.").

[

] Thus, we find that Respondents have not shown by clear and convincing evidence that the '471 invention was either reduced to practice before the critical date or that a person skilled in the art would be enabled to practice the invention before the critical date. Accordingly, we agree with the ALJ that Respondents have not shown that the '471 invention was ready for patenting.

2. The '190 Patent

Respondents argue that the alleged invention of the asserted claims of the '190 patent was ready for patenting[

]. Respondents argue that all features of the claimed invention of the '190 patent can be identified in [

]

847:20-848:1. Dr. Wolfe also testified generally that[

]show that the invention was enabled before patenting. *Id.*

We find that Respondents have not shown by clear and convincing evidence that the invention of the '190 patent was either reduced to practice before the critical date or that a person skilled in the art would be enabled to practice the invention before the critical date. First, we find that Respondents have not shown that[

]could display the "interactive instructions" as described and claimed in the '190 patent. [

]. Asserted claim 13 of the '190 patent, and preferred embodiment of the '190 patent, specifically call for a display that can display the interactive instructions. '190 patent at 2:32-50 ("a hand-held digital imaging device including a display," "displaying interactive instructions on the display"); Fig. 6A, 6B (LCD screen 402).) Indeed, without this

[

]

Respondents also argue that a person of skill in the art would be able to [

] Contrary to Respondents' assertions, Flashpoint's expert explained that[

]

For the foregoing reasons, we find that Respondents have not shown by clear and convincing evidence that the '190 invention was either reduced to practice before the critical date or that a person skilled in the art would be enabled to practice the invention before the critical date. Accordingly, we agree with the ALJ that Respondents have not shown that the '190 invention was ready for patenting.

3. The '538 Patent

Respondents argue that the invention of the '538 patent was ready for patenting by

[

]

Dr. Wolfe testified that claims 1 and 19 the '538 patent were ready for patenting as evidenced by [

]

As with the '190 patent, we believe that Respondents have not established by clear and convincing evidence that [

]could display the "interactive instructions" as described and claimed in the '538 patent.

[

]

relied on by Respondents neither discloses the requirements of updating interactive instructions of claim 1 or a translucent overlay bar of claim 19, nor does it enable one of ordinary skill in the art to practice the invention embodied in the '538 Patent. RX-311; RX-743C at Q/A.535. The

[

]Thus, we

find that Respondents have not shown by clear and convincing evidence that the documents it relies upon shows that the claimed inventions of the '538 patent were reduced to practice or that a person of ordinary skill in the art would have been enabled to practice the claimed invention before the critical date.

Accordingly, the Commission has determined to affirm, with modifications, the ALJ's finding that Respondents have not shown by clear and convincing evidence that the asserted patents are invalid due to the on-sale bar.

E. Unenforceability for Failure to Name an Inventor

"When an invention is made by two or more persons jointly, they shall apply for patent jointly." 35 U.S.C. § 116. "There is a presumption that the inventors named on an issued patent are correct, so misjoinder of inventors must be proven by clear and convincing evidence." *Fina Oil & Chem. Co. v.* Ewen, 123 F.3d 1466, 1472 (Fed. Cir. 1997). The Commission does not have the authority to correct inventorship. *See, e.g. EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices*, Inv. No. 337-TA-395, USITC Pub. 3392, Comm'n Op. a 9-10 (July 9, 1998).

Joint inventorship under 35 U.S.C. § 116 requires both collaboration and contribution. First, according to the Federal Circuit, "[t]he word "jointly" is not mere surplusage" and "[f]or persons to be joint inventors under Section 116, there must be some element of joint behavior, such as collaboration or working under common direction." *Kimberly–Clark Corp. v. Procter & Gamble Distrib. Co.* 973 F.2d. 911, 917 (Fed. Cir. 1992). Joint inventorship requires "collaboration and concerted effort." *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1359 (Fed. Cir. 2004). Second, each individual must have contributed to the conception of the invention. *Ethicon, Inc. v. United States Surgical Corp.*, 135 F. 3d. 1456, 1460 (Fed. Cir. 1998). One cannot be a joint inventor when he or she merely assists the actual inventor after conception. *Id.* A joint inventor's contribution must be material; it must do more than explain well-known concepts to the actual inventors or inform them of the current state of the art. *Acromed Corp. v.*

Somafor Danek Group, Inc. 253 F.3d 1371, 1379–80 (Fed Cir. 2001). This contribution must be more than simply the exercise of ordinary skill in the art. *Tavory v. NTP Inc.*, 297 Fed. Appx. 976, 979 (Fed. Cir 2008), *cert denied*, 129 S.Ct. 2861 (2009).

Before the ALJ, Respondents argued that the claim 19 of the '538 patent, which recites a "translucent overlay bar" limitation, are unenforceable for failure to name Ms. Dori Friend,[ ]as an inventor.

[

] The ALJ found that Respondents did not show by clear and convincing evidence that Ms. Friend should have been named an inventor. ID at 170. According to the ALJ, Ms. Friend's testimony shows that use of translucency in a user interface was well known in the art and that she herself did not believe that she contributed to the invention. *Id.* According to the ALJ, Ms. Friend's testimony also shows uncertainty surrounding the translucency documents relied on by Respondents. *Id.* The ALJ also found that Ms. Friend was not in regular communication with the inventors of either patent or that she worked with any of the inventors of the patents. *Id.*

We agree with the ALJ that Respondents have not shown inventorship by clear and convincing evidence. *Ethicon*, 135 F.3d at 1464 (explaining that the "co-inventor's testimony and the corroborating evidence must show inventorship 'by clear and convincing evidence. . . . The trial court must consider corroborating evidence in context, make necessary credibility determinations, and assign appropriate weight to the evidence[.]"). [

]

Respondents have not shown that Ms. Friend necessarily knew anything about the Flashpoint platform beyond what was necessary to do her job.

HTC argues that the ALJ erred in holding that Ms. Friend is not an inventor of claim 19 of the '538 patent because use of translucency was well known in the art. According to HTC, [

] We disagree with HTC's argument.

Contrary to HTC's argument,[

]

917:6-7. We believe that there is a distinction between the claimed limitation "translucent overlay bars" versus the concept of using "translucency" in a user interface. [

]Claim 19 of the '538 patent does not require the mere graphic design of a "translucent overlay bar," but rather the application of a "translucent overlay bar" to a display screen on a portable device, for use in operations related to digital imaging. Being able to create the appearance of a translucent overlay bar in Photoshop is different from creating an overlay bar of claim 19. *See* '538 patent at 13:19-14:34; *see also* Friend, Tr. at 922:17-923:12.

Respondents have not established that what Ms. Friend did was more than "merely explain to the named inventor the well-known concepts in the current state of the art." *See Ethicon,* 135 F.3d at1464 ("One who simply provides the inventor with well-known principles or explains the state of the art without ever having 'a firm and definite idea' of the claimed combination as a whole does not qualify as a joint inventor."). Thus, Ms. Friend's testimony that [ ]does not necessarily indicate that she conceived of the limitation "displaying a first translucent overlay bar in the integrated display" of claim 19. As the ALJ correctly found, Ms. Friend did nothing more than "'merely explain to the real inventor[] well-known concepts and/or the current state of the art[.]'" ID at 170-71 (*quoting Pannu v. Iolab Corp.,* 155 F.3d 1344, 1351 (Fed. Cir. 1998).

Respondents have not shown by clear and convincing evidence that Ms. Friend collaborated with the named inventor and that she contributed to conception of the "translucent overlay bar" limitation of claim 19 of the '538 patent. Accordingly, the Commission has determined to affirm the ALJ's enforceability finding with respect to claim 19 of the '190 patent.

F. Economic Prong of the Domestic Industry Requirement

In order to establish a violation of Section 337 in a patent-based action, a complainant must demonstrate that a domestic industry either exists in the United States or is in the process of being established. *See* 19 U.S.C. § 1337(a)(2). Sections 337(a)(2) and (3) set forth the domestic industry requirement in its entirety:

> (2) Subparagraphs (B), (C), (D), and (E) of paragraph (1) apply only if an industry in the United States, relating to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established.

> (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—
>
> > (A) significant investment in plant and equipment;
> >
> > (B) significant employment of labor or capital; or
> >
> > (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. §§ 1337(a)(2) and (3). The Commission has divided the domestic industry requirement into an economic prong, which requires certain activities and investments, and a technical prong, which requires that these activities and investments relate to the articles protected by the asserted patents. *See, e.g.*, *Certain Variable Speed Wind Turbines and Components Thereof*, Inv. No. 337-TA-376, Comm'n Op. at 14-16 (Nov. 1996).

The domestic industry products at issue are licensed Apple and Motorola products, *i.e.*, the Apple iPhone 4S and iPhone 5 and the Motorola Admiral and Droid Razr Maxx. With respect to Apple, Flashpoint contended that the Apple iPhone 4S and iPhone 5 practice all of the asserted patents. With respect to Motorola, Flashpoint contended that only the Motorola Admiral practices the '471 patent and that only the Motorola Droid Razr Maxx practices the '538 patent. Flashpoint does not assert that any Motorola products practice the '190 patent.

Before the ALJ, Flashpoint relied on its licensees Apple's and Motorola's investments in plant and equipment, employment of labor and capital, and research and development to meet the economic prong of the domestic industry requirement. To show the amount of investment that should be allocated to the Apple and Motorola domestic industry products, [ ]by the Apple domestic industry products, *i.e.*, the Apple iPhone 4S and iPhone 5, and the Motorola domestic industry products, *i.e.*, the Motorola Admiral and Droid Razr Maxx.

Flashpoint's allocation methodology with respect to the Apple iPhone 4S, released October 2011 in the United States, and the iPhone 5, released September 2012 in the United States, is as follows. CX-66C; CX-608C at Q/A.10-13. [

]

Flashpoint's allocation methodology with respect to the Motorola domestic industry products is as follows.[

]

The ALJ found that Flashpoint has shown that a domestic industry exists for its licensee Apple with respect to the articles protected by each of the asserted patents under Sections 337(a)(3)(B) and (C). ID at 202-08. The ALJ found that Flashpoint has shown that a domestic industry exists for its licensee Motorola with respect to the articles protected by the '471 and '538 patents under Sections 337(a)(3)(A), (B) and (C). *Id.*

The ALJ first addressed Flashpoint's allocation method for Motorola and Apple. The ALJ accepted Flashpoint's allocation method for Motorola. *Id.* at 198. The ALJ found that Flashpoint explained exactly how it came up with its allocation method using the domestic industry products' portion of [

]. *Id.* at 199. According to the ALJ, while[ ]did include products not included in the Motorola domestic industry products, the final allocation amount was limited to the particular products. *Id.*

The ALJ, however, rejected Flashpoint's allocation method for Apple. *Id.* at 200. According to the ALJ, Flashpoint only presented [

] *Id.* According to the ALJ, Flashpoint failed to complete its allocation method by "calculating the sale of the Apple domestic industry products *in* the United States." *Id* (emphasis in original). The ALJ noted that this is particularly confusing because Flashpoint did perform such an allocation for the Motorola domestic industry products, but for inexplicable reasons failed to complete the necessary calculation to determine the correct amount attributable to the sale of the iPhone in the United States. *Id.* As such, the ALJ found that Flashpoint's allocation method relating to the net sales of the Apple domestic industry products is irrelevant and unusable in the domestic industry analysis. *Id.*

The ALJ then analyzed each of the subsections 337(a)(3)(A), (B), and (C). First, the ALJ found that Flashpoint has shown that Motorola made significant investment in plant and equipment under 337(a)(3)(A) but that Flashpoint has not presented sufficient evidence regarding plant and equipment for the Apple domestic industry products under 337(a)(3)(A). *Id.* at 201. The ALJ found that Flashpoint has shown that both Motorola and Apple employ significant investments in labor and capital. *Id.* at 202-03. Lastly, the ALJ found that Flashpoint has shown that both Apple and Motorola have made substantial investment in research and development related to their respective domestic industry products. *Id.* at 206-08.

Respondents argue that the ALJ erred in finding that Flashpoint has shown that its licensees' investment satisfy each of the subsections 337(a)(3)(A), (B), and (C). We address each of the subsections in turn.

1. Significant Investment in Plant and Equipment

With respect to its licensee Apple, Flashpoint asserted the licensed Apple iPhone 4S and iPhone 5 as the domestic industry products for each of the asserted patents under subsection (A). The ALJ found, however, that Flashpoint has not presented sufficient evidence regarding plant and equipment for the Apple domestic industry products. *Id.* at 202. Specifically, the ALJ found

[

] Flashpoint did not challenge this specific finding in its petition for review. Accordingly, the issue is waived.

Flashpoint does, however, assert a Motorola domestic industry product for the '471 patent and the '538 patent under subsection (A). Flashpoint asserts that the Motorola Admiral practices claims in the '471 patent only, and that the Motorola Droid Razr Maxx practices claims in the '538 patent only. *Id.* In other words, the articles that practice each of the '471 patent and the '538 patent do not overlap. Because the investments in each Motorola product are specific to only one patent, Flashpoint must separately establish that Motorola's investments in the Admiral were sufficient to establish a domestic industry for the '471 patent and that the investments associated with the Razr Maxx were sufficient to satisfy the economic prong for the '538 Patent. *See Certain Audio Digital-to-Analog Converters*, Inv. No. 337-TA-499, Unreviewed Final Initial Determination at 113 (Nov. 15, 2004) ("Because complainant is asserting the '928 patent and the '501 patent, and the articles that practice said patents *do not overlap*, complainant must demonstrate the existence of two domestic industries." (emphasis added)); *see also Certain Ground Fault Circuit Interrupters and Products Containing Same*, Inv. No. 337-TA-739, Comm'n Op. at 78-79 (June 8, 2012) (finding it acceptable for complainant to present its proof of a domestic industry under 19 U.S.C. § 1337(a)(3)(A) and(B) on a product-by-product basis where one product practices multiple patents).

Under separate allocations for the '471 patent and the '538 patent, Flashpoint has shown that Motorola made significant investment in plant and equipment. As found by the ALJ,

[

] *Id.*

[

]. In the context of the industry presented in this investigation, we find that this is sufficient to show that Motorola has made significant investment in plant and equipment with respect to the '471 patent and the '538 patent, and thus Flashpoint has met the economic prong of the domestic industry requirement with those two patents.

Respondents argue that the Commission should discredit Flashpoint's reliance on certain Motorola employees that allegedly performed research and development activities related to the Admiral and the Razr Maxx. According to Respondents, the vast majority of the relevant work on the Admiral and Razr Maxx occurs outside the United States, pointing in particular to Motorola's center for cellular device research and development located in Brazil. We do not find Respondents' arguments regarding Motorola's Brazilian facility to be persuasive. The evidence shows only that Motorola maintains a facility in Brazil called the "Cellular Device Research and Development Center," with functions including research and development for "cellular messaging." RX-2387; Miller, Tr. at 1171:15-20. The hearing testimony of Motorola's witness, Mr. Thomas Miller, elicited by Respondents focused on the facility's existence, name, and general function, with no evidence tying the facility to any Motorola domestic industry product. *See* Miller, Tr. 1170:4-1171:24. Respondents' evidence merely establishes the existence of a foreign facility, with no connection to relevant Motorola products.

In contrast, the evidence presented by Flashpoint directly addresses activities in the United States dedicated to the Motorola domestic industry products,[

] This evidence provides specific information regarding Motorola's investments on a per-product basis.

Under Respondents' position, any party with any foreign operations must perform an analysis of domestic versus foreign operations. Such a position has been rejected by the Commission. *See Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm'n Op. at 43 n.15 (Aug. 1, 2007) ("Respondents wrongly assert that [Complainant] was under an 'obligation' to present evidence necessary to perform a comparative analysis of foreign and domestic assets in order to prevail on the economic prong"). As the Commission stated in *Certain Male Prophylactic Devices*, "[t]here is no Commission precedent supporting the proposition that a comparison of domestic and foreign producers' assets must be performed." *Id.* Such evidence may inform the domestic industry analysis, but is not mandatory as respondents argue. Thus, Flashpoint has shown that an economic domestic industry exists under subsection 337(a)(3)(A) with respect to the '471 and '538 patents.

2. Significant Employment of Labor and Capital

The ALJ found that Apple made significant investments in research and development ("capital") and employment of engineers ("labor") relating to the iPhone 4S and iPhone 5. The ALJ agreed with Flashpoint that these investments count towards "labor and capital" under subection 337(a)(3)(B). [

]

Respondents argue that there is no means by which to segregate labor and capital expenditures from Apple's total research and development investment. In other words, Respondents essentially argued that Apple's research and development investments should be considered under subsection 337(a)(3)(C) and not under subsection 337(a)(3)(B). The

Commission has made no such requirements in the past. Indeed, in *Certain Ground Fault Circuit Interrupters*, the Commission gave credit to complainant the salary paid to engineers who performed research and development as labor under subsection 337(a)(3)(B). Comm'n Op. at 79-80.

As found by the ALJ, here, Flashpoint provided individual head counts for Apple engineers working on research and development for the iPhone 4S and iPhone 5 in the United States. ID at 202-203. [

] This head-count information in the context of the industry here shows that Flashpoint's licensee Apple made significant investment in labor and capital with respect to each of the asserted patents under subsection 337(a)(3)(B).

With respect to the Motorola labor expenditures, Respondents argue that the headcount reports that Flashpoint relied on do not provide any context in which to evaluate whether the labor expenses are significant to the Motorola Admiral and Droid Razr Maxx. According to Respondents, evidence was revealed at the hearing that Motorola's R&D headquarters for its cellular products is overseas and that Motorola "has professional employees around the world dedicated to research and development activities." Miller, Tr. at 1170:49. This evidence is insufficient to overturn the ALJ's finding with respect to the individual employee headcount, labor hours, and costs for the individual Motorola domestic industry products. As found by the ALJ, [

] Thus, we find that Flashpont's licensee, Motorola, has made significant investment in labor with respect to the '471 patent and the '538 patent under subsection 337(a)(3)(B).

The ALJ also credited Apple's and Motorola's overall research and development costs as "capital." Specifically, the ALJ noted that in [

]

Although there is no clear explanation in the record as to how Apple's research and development costs count as "capital," we nevertheless find that such evidence provided by Flashpoint provides relevant information for analyzing the significance of Apple and Motorola's investment in research and development in the context of the licensees' businesses.

In sum, we find that Flashpoint properly relied on Apple and Motorola's investments in research and development to establish a domestic industry under subsection 337(a)(3)(B) for all of the asserted patents.

3. Substantial Investments in Engineering, Research, and Development

The ALJ found that Apple and Motorola made substantial investments in research and development under subsection 337(a)(3)(C) based on the same facts on which he based his finding under subsection 337(a)(3)(B). ID at 205. Respondents argue for reversal of the ALJ's findings regarding subsection (C) based entirely upon the ALJ's finding that the technical prong was not satisfied with respect to the '471 and '190 patents. In other words, Respondents argue that because subsection (C) requires both a technical prong and an economic prong, and thus the ALJ cannot make a domestic industry finding under subsection (C) based on economic domestic industry alone.

The Federal Circuit has explicitly held that the technical prong of the domestic industry requirement is subsumed under subsection (C) with respect to a domestic industry based on investments in research and development. *Microsoft Corp. v. International Trade Comm'n*, 731 F.3d 1354 (Fed. Cir. 2013). There is no error, however, in the ALJ's fact-finding, and indeed Respondents do not point out any, with respect to the economic prong. By convention, the technical prong and economic prong are evaluated independently in a domestic industry analysis. The ALJ found that "Motorola and Apple have made substantial investments in research and development related to their respective domestic industry products." ID at 208. In other words, the ALJ found that Motorola and Apple's expenses, as properly allocated to the domestic industry products, are substantial (*i.e.,* satisfy the economic prong). Separately, the ALJ analyzed whether Apple's and Motorola's investments were with respect to the articles protected by the '471 and '190 patents (*i.e.*, the technical prong). ID at 178-197. Separating these analyses was not error, and indeed comports with long-standing Commission practice. *See Certain Ground Fault Circuit Interrupters*, Comm'n Op. at 70 (Commission finds it conceptually useful to divide domestic industry analysis into economic prong and technical prong); *see also Certain Unified Comm'ns Sys., Prods. Used with Such Sys., and Components Thereof*, Inv. No. 337-TA-598, Order No. 9 at 2 (Sep. 5, 2007) (Unreviewed ID).

For the foregoing reasons, the Commission has determined that Flashpoint has shown that its licensee Motorola has made significant investment in plant and equipment under subsection (A), significant employment of labor under subsection (B), and substantial investment through research and development under subsection (C), with respect to the '471 patent and the '538 patent. The Commission has also determined that Flashpoint has also shown that its licensee Apple has made significant employment of labor under subsection (B) and substantial investment through research and development under subsection (C), with respect to all three asserted patents. Thus, the Commission affirms, with modifications, the ALJ's finding that Flashpoint has met the economic prong of the domestic industry requirement with respect to all three asserted patents.

VI. CONCLUSION

For the reasons set forth below, the Commission has determined to reverse the ALJ's determination of violation of Section 337 and to find no violation of Section 337 with respect to any of the asserted patents. Specifically, the Commission finds that: (1) the HTC Vivid and HTC Droid Incredible 4G LTE smartphones do not infringe the asserted claims of the '538 patent; (2) complainant has met the technical prong of the domestic industry requirement for the '538 patent; (3) respondents have not shown that the asserted claims of the '538 patent are obvious over Thurlo, Branson, the APA, Gough, and Small; (4) the ALJ correctly construed the term "operating system" in the asserted claims of the '471 patent, (5) the accused HTC, Huawei, and ZTE products do not infringe the asserted claims of the '471 patent; (6) complainant has not proved the technical prong of the domestic industry requirement for the '471 patent; (7) respondents have not shown that the asserted claims of the '471 patent are anticipated by Celi; (8) the accused HTC, Huawei, and ZTE products do not infringe the asserted claim of the '190 patent; (9) complainant has not proved the technical prong of the domestic industry requirement for the '190 patent; (10) respondents have not shown that the asserted claim of the '190 patent is anticipated or rendered obvious by Saito; (13) respondents have not shown that the asserted claims of the '538, '471, and '190 patents are invalid in view of the on-sale bar; (14) respondents have not shown that claim 19 of the '538 patent is unenforceable due to failure to name an inventor; and (15) complainant has proved that the economic prong of the domestic industry requirement with respect to the '538, '471, and '190 patents. The Commission has furthered determined to take no position on whether the asserted claim of the '190 patent is anticipated or rendered obvious by Parulski-963 or Zaurus.

By Order Of the Commission,

Lisa R. Barton
Acting Secretary to the Commission

Issued: April 21, 2014

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **April 21, 2014.**

Lisa R. Barton, Acting Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

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PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of

CERTAIN ELECTRONIC IMAGING DEVICES

Investigation No. 337-TA-850

NOTICE OF COMMISSION DETERMINATION TO REVIEW-IN-PART A FINAL DETERMINATION

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to review in-part the final initial determination ("ID") issued by the presiding administrative law judge ("ALJ") on September 30, 2013, finding a violation of Section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337 ("Section 337").

FOR FURTHER INFORMATION CONTACT: Jia Chen, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-4737. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov*. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on June 29, 2012, based on a complaint filed by Flashpoint Technology, Inc. ("Flashpoint") of Peterborough, New Hampshire alleging violations of Section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain electronic imaging devices by reason of infringement of certain claims of U.S. Patent Nos. 6,504,575 ("the '575 patent"), 6,222,538 ("the '538 patent"), 6,400,471 ("the '471 patent"), and 6,223,190 ("the '190 patent"). The notice of investigation named the following respondents: HTC Corporation of Taoyuan, Taiwan and HTC America, Inc. of Bellevue, Washington (collectively, "HTC"); Pantech Co., Ltd. of Seoul, Republic of Korea and Pantech Wireless, Inc. of Atlanta, Georgia (collectively, "Pantech"); Huawei Technologies Co., Ltd. of Shenzhen, China; FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) of Plano, Texas (collectively "Huawei"); ZTE Corporation of Shenzhen, China; and ZTE (USA) Inc. of

Richardson, Texas (collectively "ZTE"). The '575 patent and respondent Pantech have been terminated from the investigation. The Commission Office of Unfair Import Investigations did not participate in this investigation.

On September 30, 2013, the ALJ issued a final ID finding a violation of Section 337 by HTC. Specifically, the ALJ concluded that two of the accused HTC smartphones, *i.e.*, the HTC Vivid and HTC Droid Incredible 4G LTE, infringe the asserted claims of the '538 patent. The ALJ found, however, that none of the other accused HTC smartphones infringe the '538 patent and that none of the accused HTC, Huawei, or ZTE smartphones infringe the asserted claims of the '471 patent or the '190 patent. The ALJ found that the smartphones of Flashpoint's licensees [ ] meet the technical prong of the domestic industry requirement with respect to the '538 patent, but that none of the licensed [ ] smartphones meet the technical prong of the domestic industry requirement with respect to either the '471 or '190 patents. The ALJ found that Flashpoint established the economic prong of the domestic industry requirement under Sections 337(a)(3)(A), (B), and (C) with respect to all of the asserted patents. The ALJ also found that HTC has not established that the asserted patents are invalid in view of the prior art or the on-sale bar. The ALJ further found that the '190 and '538 patents are not unenforceable for failure to name an inventor.

On October 31, 2013, Flashpoint filed a petition for review, challenging the ALJ's determination with respect to: (1) the representativeness of the accused products for the '538 patent, (2) claim construction for the '471 patent, (3) non-infringement of the '471 patent, (4) non-infringement of the '190 patent, (5) technical prong for the '471 patent, and (6) technical prong for the '190 patent.

On the same day, respondents HTC, Huawei, and ZTE filed a joint petition for review, challenging the ALJ's determination with respect to: (1) non-infringement of the '190 patent, (2) validity of the '190 patent for anticipation and obviousness, (3) validity of the '471 patent for anticipation and obviousness; (4) technical prong for the '190 patent, and (5) economic prong with respect to all asserted patents. HTC filed a separate petition for review with respect to issues affecting only HTC, challenging the ALJ's determination with respect to (1) claim construction for the '538 patent; (2) infringement of the '538 patent, (3) validity of the '538 patent for anticipation and obviousness, (4) non-infringement of the '471 patent; (5) validity of the asserted patents with respect to the on-sale bar, and (6) enforceability of the asserted patents.

The Commission has determined to review the ALJ's findings regarding the following issues: (1) infringement of the asserted claims of the '538 patent by the HTC Vivid and HTC Droid Incredible 4G LTE smartphones, (2) the technical prong of the domestic industry requirement for the '538 patent; (3) obviousness of the asserted claims of the '538 patent over U.S. Patent No. 5,835,772 to Thurlo ("Thurlo"), U.S. Patent No. 5,740,801 to Branson ("Branson"), the "Admitted Prior Art" ("APA"), U.S. Patent No. 5,638,501 to Gough *et al.* ("Gough"), and U.S. Patent No. 5,898,434 to Small ("Small"); (4) claim construction of the term "operating system" in the asserted claims of the '471 patent, (5) infringement of the '471 patent by the accused HTC, Huawei, and ZTE products; (6) the technical prong of the domestic industry requirement for the '471 patent; (7) anticipation of the asserted claims of the '471 patent in view of U.S. Patent No.

5,687,376 to Celi, Jr. *et al.*; (8) infringement of the asserted claim of the '190 patent; (9) technical prong of the domestic industry requirement for the '190 patent; (10) anticipation and obviousness of the '190 patent in view of U.S. Provisional Patent Application 60/037,963 to Parulski; (11) anticipation and obviousness of the '190 patent in view of the Zaurus; (12) anticipation and obviousness of the '190 patent in view of the Japanese Laid-Open Patent Application No. H09-298678 to Kazu Saito; (13) validity of the '538, '471, and '190 patents in view of the on-sale bar; (14) enforceability of claim 19 of the '538 patent with respect to joint inventorship; and (15) the economic prong of the domestic industry requirement with respect to the '539, '471, and '190 patents. The Commission has determined not to review any of the remaining issues.

The parties should brief their positions on the issues on review with reference to the applicable law and the evidentiary record. In connection with its review, the Commission is particularly interested in responses to the following questions:

> **Question 1:** The Federal Circuit issued an opinion in *Suprema Inc. v. ITC* on December 13, 2013, holding that "an exclusion order based on a violation of 19 U.S.C. § 1337(a)(1)(B)(i) may not be predicated on a theory of induced infringement under 35 U.S.C. § 271(b) where direct infringement does not occur until *after* importation of the articles the exclusion order would bar." Opinion at 4. Please address whether the Court's holding regarding induced infringement applies to the facts of this case.
>
> **Question 2:** Please discuss whether Flashpoint has presented sufficient evidence that HTC had specific intent to induce infringement of the asserted claims of the '538 patent [ ] Specifically, please address whether this case is or is not distinguishable from the facts of *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 851-52 (Fed. Cir. 2010).
>
> **Question 3:** Please discuss whether Flashpoint has presented sufficient evidence showing acts of direct infringement as to the asserted claims of the '538 patent. [ ]
>
> **Question 4:** Please discuss whether the asserted claims of the '538 patent are obvious over Thurlo, Branson, the APA, Gough, and/or Small. Specifically, please address whether a person of ordinary skill in the art would be motivated to combine Thurlo, Branson, and the APA, and whether a person of ordinary skill in the art would be motivated to combine Thurlo, Branson, and the APA, with Gough and/or Small. Please cite to the record, including relevant prosecution history and expert testimony.

Question 5: With respect to the proper construction of the term "operating system" of the asserted claims of the '471 patent, discuss whether the preferred embodiments of the '471 patent are implemented using an "operating system" that does not include the kernel and device drivers. Please also discuss, even if the preferred embodiments of the '471 patent are implemented using an operating system that does not include the kernel and device drivers, whether under the ALJ's construction of the term "operating system," the kernel and device drivers are *necessarily* included.

Question 6: Discuss whether the accused products meet each of the limitations of the asserted claims of the '471 patent, including the term "operating system" under the proper construction of that term and the term "image processing system," as construed by the ALJ.

Question 7: [

]

Question 8: Discuss whether the asserted claims of the '471 patent are anticipated by the Celi reference under the ALJ's construction of the term "image processing subsystem."

Question 9: [

]

Question 10: Discuss whether the accused products meet the limitation "wherein the *formatted document* is formatted in accordance with a *predefined model*" of claim 13 of the '190 patent. [

]

Question 11: Please provide evidentiary support in the record regarding whether the U.S. investments alleged by complainant are significant or substantial in the context of the complainant's business, the relevant industry, and market realities.

Question 12: Assume for purposes of this question that the ITC issues an exclusion order covering the "no-contract" and "pay as you go" phones described on page 4 of ZTE Corporation and ZTE (USA) Inc.'s Statement on the Public Interest filed on November 18, 2013. Please provide the percentage of the total "no contract" and "pay as you go" phone market that would be affected by such an exclusion order.

Question 13: Several entities submitted statements on the public interest asserting that there should be a transition period for any remedy issued against HTC. Please explain and provide evidence regarding whether such a transition period is warranted in this investigation. Additionally, please explain and provide evidence regarding the appropriate duration for any such transition period.

Question 14: Several entities submitted statements on the public interest asserting that the Commission should consider in its public interest analysis the fact that HTC's accused products are complex devices comprising numerous components, whereas Flashpoint's infringement allegations are directed to a single component of the accused devices. How (if at all) should the Commission consider such a factor in determining whether to issue such a remedy or in fashioning an appropriate remedy in this investigation?

In connection with the final disposition of this investigation, the Commission may (1) issue an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) issue one or more cease and desist orders that could result in a respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that address the form of remedy, if any, that should be ordered. If a party seeks exclusion of an article from entry into the United States for purposes other than entry for consumption, the party should so indicate and provide information establishing that activities involving other types of entry either are adversely affecting it or likely to do so. For background, *see Certain Devices for Connecting Computers via Telephone Lines*, Inv. No. 337-TA-360, USITC Pub. No. 2843, Comm'n Op. at 9 (December 1994).

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or cease and desist orders would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

If the Commission orders some form of remedy, the United States Trade Representative, as delegated by the President, has 60 days to approve or disapprove the Commission's action. *See* Presidential Memorandum of July 21, 2005, 70 *Fed. Reg.* 43251 (July 26, 2005). During this period, the subject articles would be entitled to enter the United States under bond, in an amount determined by the Commission and prescribed by the Secretary of the Treasury. The

Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed if a remedy is ordered.

WRITTEN SUBMISSIONS: The parties to the investigation are requested to file written submissions on the issues identified in this notice. Parties to the investigation, interested government agencies, and any other interested parties are encouraged to file written submissions on the issues of remedy, the public interest, and bonding. Such submissions should address the recommended determination by the ALJ on remedy and bonding. Complainant is also requested to submit proposed remedial orders for the Commission's consideration. Complainant is also requested to state the date that the patents expire and the HTSUS subheadings under which the accused products are imported. The written submissions and proposed remedial orders must be filed no later than close of business on Thursday, January 3, 2014. Reply submissions must be filed no later than the close of business on Thursday, January 10, 2014. The written submissions must be no longer than 75 pages and the reply submissions must be no longer than 35 pages. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Persons filing written submissions must do so in accordance with Commission rule 210.4(f), 19 C.F.R. § 210.4(f), which requires electronic filing. The original document and 8 true copies thereof must also be filed on or before the deadlines stated above with the Office of the Secretary. Any person desiring to submit a document to the Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 C.F.R. § 210.6. Documents for which confidential treatment by the Commission is sought will be treated accordingly. All non-confidential written submissions will be available for public inspection at the Office of the Secretary and on EDIS.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in sections 210.42-46 and 210.50 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 210.42-46 and 210.50).

By order of the Commission.

Lisa R. Barton
Acting Secretary to the Commission

Issued: December 16, 2013

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **December 17, 2013.**

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of CERTAIN ELECTRONIC IMAGING DEVICES	Inv. No. 337-TA-850

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BOND

Administrative Law Judge Theodore R. Essex

(September 30, 2013)

Appearances:

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Goutam Patnaik, Esq.; Tuhin Ganguly, Esq.; and Michael D. Stone, Esq. of Pepper Hamilton, LLP of Washington, D.C.

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For Respondents HTC Corporation and HTC America, Inc.:

John P. Schnurer, Esq.; N. Thane Bauz, Esq.; Cheng C. Ko, Esq.; Tawen Chang, Esq.; Kevin J. Patariu, Esq.; Philip A. Morin, Esq.; Patrick J. McKeever, Esq.; and Nancy Cheng, Esq. of Perkins Coie LLP of San Diego, California

James B. Coughlan, Esq. and Terrance J. Wikberg, Esq. of Perkins Coie LLP of Washington, D.C.

Pursuant to the Notice of Investigation, 77 Fed. Reg. 38829 (June 29, 2012), this is the Initial Determination of the in the matter of *Certain Electronic Imaging Devices*, United States International Trade Commission Investigation No. 337-TA-850. *See* 19 C.F.R. § 210.42(a).

It is held that no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain electronic imaging devices containing the same that infringe one or more of claims 1, 2, and 4 of U.S. Patent No. 6,400,471 and claim 13 of U.S. Patent No. 6,223,190.

It is held that a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain electronic imaging devices containing the same that infringe claims 1 and 19 of U.S. Patent No. 6,222,538.

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The following abbreviations may be used in this Initial Determination:

CDX	Complainants' demonstrative exhibit
CIB	Complainants' initial post-hearing brief
CPX	Complainants' physical exhibit
CRB	Complainants' reply post-hearing brief
CX	Complainants' exhibit
Dep.	Deposition
JX	Joint Exhibit
RDX	Respondents' demonstrative exhibit
RIB	Respondents' initial post-hearing brief
RPX	Respondents' physical exhibit
RRB	Respondents' reply post-hearing brief
RRX	Respondents' rebuttal exhibit
RX	Respondents' exhibit
SIB	Staff's initial post-hearing brief
SRB	Staff's reply post-hearing brief
Tr.	Transcript

I. BACKGROUND

A. Institution and Procedural History of This Investigation

By publication of a notice in the *Federal Register* on June 29, 2012, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, the Commission instituted Investigation No. 337-TA-850 with respect to U.S. Patent No. 6,400,471 (''the '471 Patent''); U.S. Patent No. 6,222,538 (''the '538 Patent''); U.S. Patent No. 6,504,575 (''the '575 Patent''); and U.S. Patent No. 6,223,190 (''the '190 patent'') to determine:

> [W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain electronic imaging devices that infringe one or more of claims 1-5, 7, 8, 10, 22, 24, 26, 28, 31, 34-43, 60 and 62-69 of the '471 patent; claims 1, 17, 19 and 21-23 of the '538 patent; claims 1, 8, 17, 18, 20-22, 26 and 28 of '575 patent, and claims 13, 14, 16, 20-29, 31-33, 36-39, 42, 43, 46-49 of the '190 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

77 Fed. Reg. 38829 (June 29, 2012).

The complainant is FlashPoint Technology, Inc. ("FlashPoint") of Peterborough, New Hampshire. (*Id.*) The Notice of Investigation named the respondents as HTC Corporation of Taoyuan, Taiwan; HTC America, Inc. of Bellevue, Washington; Pantech Co., Ltd. of Seoul, Korea; Pantech Wireless, Inc. of Atlanta, Georgia; Huawei Technologies Co., Ltd. of Shenzhen, China; FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) of Plano, Texas; ZTE Corporation of Shenzhen, China; and ZTE (USA) Inc. of Richardson, Texas. (*Id.*) The Commission Investigative Staff ("Staff") of the Office of Unfair Import Investigations was not a party in this investigation. (*Id.*)

On August 9, 2012, the ALJ issued an order granting a joint motion amend the complaint and notice of investigation to substitute Huawei Device Co., Ltd. and Huawei Device USA Inc.

for respondents Huawei Technologies Co., Ltd. and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA). (Order No. 6.) On September 5, 2012, the Commission determined not to review ID. (*Commission Determination Not to Review an Initial Determination Granting a Joint Motion toAm end the Notice of Investigation and Complaint* (September 5, 2012).)

On October 26, 2012, the ALJ granted a motion by FlashPoint to amend its complaint to add additional domestic industry contentions related to a newly released domestic industry product. (Order No. 10.)

On December 13, 2012, the ALJ granted an unopposed motion to partially terminate the investigation by withdrawing all allegations relating the '575 Patent. (Order No. 14.) On January 9, 2013, the Commission determined not review the ID. (*Notice of Commission Determination Not to Review an Initial Determination Granting FlashPoint Technology, Inc.'s Motion for Termination of the Allegations Relating to U.S. Patent No. 6,504,575* (January 9, 2013).)

On March 1-11, 2013, the ALJ conducted the pre-hearing conference and hearing.

On March 1, 2013, the ALJ issued an initial determination granting an unopposed motion to partially terminate the investigation by withdrawing all allegations relating to claims 7, 22, 24, 26, 28, 31, 34-43, 60, 62-68 and 69 of the '471 Patent; claims 17 and 23 of the '538 Patent; and claims 16, 27, 38 and 49 the '190 Patent. (Order No. 19.) On March 21, 2013, the Commission determined not to review the ID. (*Notice of Commission Determination Not to Review an Initial Determination Granting FlashPoint Technology, Inc.'s Motion for Termination of Certain Dependent Claims* (March 21, 2013).)

On March 5, 2013, the ALJ issued an initial determination granting a joint motion to terminate the investigation with respect to Pantech Co., Ltd. and Pantech Wireless, Inc.

(collectively "Pantech") based on entry of a consent order. (Order No. 21.) The motion also incorporated a Letter of Intent between FlashPoint and Pantech. (*Id.*) On April 2, 2013, the Commission determined to review Order No. 21, and remanded to the ALJ to allow FlashPoint and Pantech to file a renewed motion once the final agreement was executed. (*See Notice of Commission Determination to Review an Initial Determination Granting a Joint Motion to Terminate the Investigation as to Pantech Co., Ltd. and Pantech Wireless, Inc. Based on a Consent Order and Remand of the Initial Determination to the Administrative Law Judge* (April 2, 2013).)

On April 11, 2013, the ALJ issued an initial determination granting an unopposed motion to partially terminate the investigation by withdrawing all allegations relating to claims 3, 5, 8, and 10 of the '471 Patent; claims 21 and 22 of the '538 Patent; and claims 14, 20-26, 28, 29, 31-33, 36, 37, 39, 42, 43, 46-48, and 52-56 of the '190 Patent. (Order No. 25.) On May 1, 2013, the Commission determined not to review the subject ID. (*Notice of Commission Determination Not to Review an Initial Determination Granting FlashPoint Technology, Inc.'s Motion for Termination of Certain Claims* (May 1, 2013).)

On May 10, 2013, the ALJ issued an initial determination granting the renewed joint motion to terminate the investigation with respect to Pantech based on entry of a consent order. (Order No. 26.) The motion also incorporated a final settlement agreement between FlashPoint and Pantech. (*Id.*) On May 30, 2013, the Commission determined not to review the ID. (*Notice of Commission Determination Not to Review an Initial Determination Granting Joint Motion to Terminate the Investigation as to Pantech Co., Ltd. and Pantech Wireless, Inc. Based on Entry of a Consent Order; Issuance of Consent Order* (May 30, 2013).)

B. The Parties

1. FlashPoint Technology, Inc.

Complainant FlashPoint Technology, Inc. ("FlashPoint") is a private company involved in the research, development, and licensing of digital imaging technology with its principal place of business in Peterborough, New Hampshire. (Amended Complaint ¶ 5.) FlashPoint is the owner of the asserted patents. (*Id.* at ¶¶ 15.)

2. HTC Corporation and HTC America, Inc.

Respondents HTC Corporation and HTC America, Inc. (collectively, "HTC") are corporations organized under the laws of Taiwan and the State of Washington, respectively. (Amended Complaint ¶¶ 7, 8.) They are involved in the manufacture and sale of consumer electronics, including mobile telephones. (*Id.*) HTC Corporation has a principal place of business in Taoyuan City, Taoyuan County, Taiwan. (*Id.* at ¶ 7.) HTC America, Inc. has a principal place in Bellevue, Washington. (*Id.* at ¶ 8.)

3. ZTE Corporation and ZTE (USA), Inc.

Respondents ZTE Corporation and ZTE (USA), Inc. (collectively, "ZTE") are involved in the manufacture and sale of consumer electronics, including mobile telephones. (Amended Complaint ¶¶ 13, 14.) ZTE Corporation is a corporation organized under the laws of the People's Republic of China, with a principal place of business in Shenzhen, China. (*Id.* at ¶ 13.) ZTE (USA), Inc. is a New Jersey corporation with its principal place of business in Richardson, Texas. (*Id.* at ¶ 14.)

4. Huawei Device Co. Ltd. And Huawei Device USA, Inc.

Huawei Device Co. Ltd. and Huawei Device USA, Inc. (collectively, "Huawei") are involved in the manufacture and sale of consumer electronics, including mobile telephones.

(Amended Complaint ¶¶ 11, 12.) Huawei Device Co., Ltd. is a corporation organized and existing under the laws of the People's Republic of China, with its principal place of business located in Shenzhen, China. (*Id.* at 11.) Huawei Device USA Inc. is a corporation organized and existing under the laws of the state of Texas, with its principal place of business located in Plano, Texas. (*Id.* at 12.)

C. The Patents at Issue and Overview of the Technology

1. The '471 Patent

U.S. Patent No. 6,400,471 ("the '471 Patent"), entitled "Flexible Architecture for Image Processing," was filed on February 11, 1999, and issued on June 4, 2002. (*See* JX-0001). David Kuo and Eric Anderson are the named inventors of the '471 Patent. (*Id.*) The '471 Patent generally discloses and claims a flexible architecture that allows the same operating system to support different digital cameras. (*Id.* at 1:41-51, 2:18-31.)

The asserted claims of the '471 Patent are claims 1, 2, and 4. Claim 1 is an independent claim and claims 2 and 4 depend on claim 1. These claims read as follows (with the disputed claim terms in **bold**):

1. A system for processing image data in a digital image device, said system comprising:

> a bus;
>
> a central processing unit coupled to said bus;
>
> an **image processing subsystem** coupled to said central processing unit for processing said image data using a particular **processing mode**;
>
> a **memory unit** coupled to said bus, said **memory unit** having stored therein an **operating system** comprising instructions executed by said central processing unit to manage said **image processing subsystem**;
>
> said **memory unit** further having a **data structure** corresponding to said processing mode, said **data structure** comprising a plurality of buffers for

> managing said image data for said **image processing subsystem** during image processing, said **data structure** providing an interface between said **operating system** and said **image processing subsystem**, such that **said operating system is independent of said processing mode used by said image processing subsystem**; and
>
> a data storage element coupled to said bus for storing said image data after image processing.

2. The system of claim 1 wherein said digital image device is a digital camera.

4. The system of claim 1 further comprising a spooler element coupled to said memory unit, wherein said spooler element is for transferring said image data into said data structure.

2. The '190 Patent

U.S. Patent No. 6,223,190 ("the '190 Patent"), entitled "Method and System for Producing an Internet Page Description File on a Digital Imaging Device," was filed on April 13, 1998, and issued on April 24, 2001. (*See* JX-0010). Tim Takao Aihara and Rodney Somerstein are the named inventors of the '190 Patent. (*Id.*) The '190 Patent is directed to a method and system for generating a formatted electronic document including text and images. (*Id.* at Abstract.)

The remaining asserted claim of the '190 Patent is claim 13. Claims 13 is an independent claim. (*Id.*) This claim reads as follows (with the disputed claim terms in **bold**):

13. In a hand-held digital imaging device including a display, a system for generating a **formatted document** including text and images, comprising:

> a set of program instructions which, when executed, cause the hand-held digital imaging device to perform the steps of:
>
> > a) displaying interactive instructions on the display that prompt a user to perform specific operations;
> >
> > b) **in response to the user performing the specific operations, automatically updating the interactive instructions, such that the user is guided through a sequence of the interactive instructions adapted to capture information from the user**;

> c) transferring the information captured from the user to a **formatted document**, wherein the **formatted document** is formatted in accordance with a **predefined model**, such that the **formatted document** is automatically generated by the hand-held digital imaging device.

3. The '538 Patent

U.S. Patent No. 6,222,538 ("the '538 Patent"), entitled "Directing Image Capture Sequences in a Digital Imaging Device Using Scripts," was filed on February 27, 1998, and issued on April 24, 2001. (*See* JX-0006). Eric C. Anderson is the named inventor of the '538 Patent. (*Id.*) The '538 Patent is directed to a system and method for controlling user interaction in an electronic imaging device that includes a display screen. (*Id.* at Abstract.)

The asserted claims of the '538 Patent are claims 1 and 19. Claims 1 and 19 are independent claims. The asserted claims are (with disputed terms in bold):

> 1. A method for controlling user interaction in a hand-held **digital camera**, the hand-held **digital camera** having an **integrated display**, the method comprising the steps of:
>
> a) storing a directed image capture sequence comprising a set of program instructions in the hand-held **digital camera**;
>
> b) executing the **directed image capture sequence** in the hand-held **digital camera** to display **interactive instructions** on the **integrated display** that prompt the user to perform a first operation; and
>
> c) in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a **series of related image captures**, while minimizing the number of key sequences the user must memorize in order to perform the operations;
>
> wherein the interactive instructions are displayed in the form of an **overlay bar** that is on the integrated display; and the interactive instructions are updated by updating the **overlay bar**.
>
> 19. A method for controlling user interaction in a handheld digital camera, the handheld digital camera having an integrated display, the method comprising the steps of:

> a) storing a directed image capture sequence in the hand-held digital camera;
>
> b) executing the directed image capture sequence in the hand-held digital camera to display interactive instructions on the integrated that prompt the user to perform the first operation;
>
> c) in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures while minimizing the number of key sequences the user must memorize in order to perform the operations; and
>
> d) displaying a first translucent overlay bar in the integrated display.

D. The Products At Issue

1. The Accused Products

The accused products are listed below by Respondent in charts and the claims for the patents asserted against each product are identified in the charts. If no claims are listed, that patent is not asserted against the product for which no claims are listed.

FlashPoint contends that the following HTC products infringe one or more claims of the '471 Patent, '190 Patent, and the '538 Patent: [redacted]

FlashPoint contends that the following Huawei products infringe one or more claims of the '471 Patent and '190 Patent: [redacted]

FlashPoint contends that the following ZTE products infringe one or more claims of the '471 Patent and the '190 Patent: [redacted]

2. Domestic Industry Products

[redacted]

[redacted]

II. IMPORTATION OR SALE

Section 337 of the Tariff Act prohibits the importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignees of articles that infringe a valid and enforceable United States patent. *See* 19 U.S.C. § 1337(a)(1)(B). A complainant "need only prove importation of a single accused product to satisfy the importation element." *Certain Purple Protective Gloves*, 337-TA-500, Order No. 17 (September 23, 2004).

FlashPoint has entered into stipulations with each of the Respondents that each of the Respondents have imported, sold for importation, or sold after importation into the United States, the accused products listed above. (*See* JX-0016C, JX-0017C, and JX-0018C.) Accordingly, the

ALJ finds that the importation requirement has been met for all of the Respondents in this investigation.

III. JURISDICTION

In order to have the power to decide a case, a court or agency must have both subject matter jurisdiction and jurisdiction over either the parties or the property involved. *See Certain Steel Rod Treating Apparatus and Components Thereof*, Inv. No. 337-TA-97, Commission Memorandum Opinion, 215 U.S.P.Q. 229, 231 (1981). For the reasons discussed below, the ALJ finds the Commission has jurisdiction over this investigation.

Section 337 declares unlawful the importation, the sale for importation, or the sale after importation into the United States of articles that infringe a valid and enforceable United States patent by the owner, importer, or consignee of the articles, if an industry relating to the articles protected by the patent exists or is in the process of being established in the United States. *See* 19 U.S.C. §§ 1337(a)(1)(B)(I) and (a)(2). Pursuant to Section 337, the Commission shall investigate alleged violations of the Section and hear and decide actions involving those alleged violations.

As set forth *supra* in Section II, FlashPoint has met the importation requirement. Furthermore, Respondents do not dispute that the Commission has *in personam* and *in rem* jurisdiction. (RIB at 5.) Accordingly, the ALJ finds that Respondents have submitted to the jurisdiction of the Commission. *See Certain Miniature Hacksaws*, Inv. No. 337-TA-237, Pub. No. 1948, Initial Determination at 4, 1986 WL 379287 (U.S.I.T.C., October 15, 1986) (unreviewed by Commission in relevant part).

IV. CLAIM CONSTRUCTION

A. Legal Standard

Pursuant to the Commission's Notice of Investigation, this investigation is a patent-based investigation. *See* 77 Fed. Reg. 38829 (June 29, 2012). Accordingly, all of the unfair acts alleged by FlashPoint to have occurred are instances of alleged infringement of the '471 Patent, '190 Patent, and '538 Patent. Claim interpretation is a question of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996); *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998). Second, a factual determination must be made as to whether the properly construed claims read on the accused devices. *Markman*, 52 F.3d at 976.

"The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365–67 (Fed. Cir. 2012) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)). In construing claims, the ALJ should first look to intrinsic evidence, which consists of the language of the claims, the patent's specification, and the prosecution history, as such evidence "is the most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *see also Bell Atl. Network Servs., Inc. v. Covad Comm'n. Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The words of the claims "define the scope of the patented invention." *Id.* And, the claims themselves "provide substantial guidance as to the meaning of particular claim terms." *Phillips*, 415 F.3d at 1314. It is essential to consider a claim as a whole when construing each term, because the context in which a term is used in a claim "can be highly instructive." *Id.* Claim terms are presumed to be used consistently throughout the patent, such that the usage of the term in one claim can often illuminate the meaning of the same term in other claims. *Research Plastics, Inc. v. Federal Pkg. Corp.*, 421 F.3d 1290, 1295 (Fed. Cir. 2005). In addition:

> . . . in clarifying the meaning of claim terms, courts are free to use words that do not appear in the claim so long as the resulting claim interpretation . . . accord[s] with the words chosen by the patentee to stake out the boundary of the claimed property.

Pause Tech., Inc. v. TIVO, Inc., 419 F.3d 1326, 1333 (Fed. Cir. 2005).

Idiosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification. *Phillips*, 415 F.3d at 1315–16. While the ALJ construes the claims in light of the specification, limitations discussed in the specification may not be read into the claims. *See Intervet Inc. v. Merial Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010); *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009). Some claim terms do not have particular meaning in a field of art, in which case claim construction involves little more than applying the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. Under such circumstances, a general purpose dictionary may be of use.[1] *See Advanced Fiber Tech. (AFT) Trust v. J & L Fiber Servs., Inc.*, 674 F.3d 1365, 1374–75 (Fed. Cir. 2012).

Claim terms should generally be given their ordinary and customary meaning unless "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner*, 669 F.3d at 1365. "To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term . . . .'" *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp.*,

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[1] Use of a dictionary, however, may extend patent protection beyond that to which a patent should properly be afforded. There is also no guarantee that a term is used the same way in a treatise as it would be by a patentee. *Phillips*, 415 F.3d at 1322.

288 F.3d 1359, 1366 (Fed. Cir. 2002)). And "[w]here the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside . . . the patent," even if the terms might otherwise be broad enough to cover that feature. *Id.* at 1366 (internal citation omitted). Thus, if a claim term is defined contrary to the meaning given to it by those of ordinary skill in the art, the specification must communicate a deliberate and clear preference for the alternate definition. *Kumar v. Ovonic Battery Co.*, 351 F.3d 1364, 1368 (Fed. Cir. 2003). In other words, the intrinsic evidence must "clearly set forth" or "clearly redefine" a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term. *Bell Atl.*, 262 F.3d at 1268. For example, disclaiming the ordinary meaning of a claim term—and thus, in effect, redefining it—can be affected through "repeated and definitive remarks in the written description." *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008) (citing *Watts v. XL Sys.*, 232 F.3d 877, 882 (Fed. Cir. 2000)); *see SafeTCare Mfg., Inc. v. Tele–Made, Inc.*, 497 F.3d 1262, 1270 (Fed.Cir.2007) (finding disclaimer of "pulling force" where "the written description repeatedly emphasized that the motor of the patented invention applied a pushing force").

When the meaning of a claim term is uncertain, the specification is usually the first and best place to look, aside from the claim itself, in order to find that meaning. *Phillips*, 415 F.3d at 1315. The specification of a patent "acts as a dictionary" both "when it expressly defines terms used in the claims" and "when it defines terms by implication." *Vitronics*, 90 F.3d at 1582. For example, the specification "may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents." *Phillips*, 415 F.3d at 1323. "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316. However, as a general rule, particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Markman*, 52 F.3d at 979.

The prosecution history "provides evidence of how the inventor and the PTO understood the patent." *Phillips*, 415 F.3d at 1317; *see also Pass & Seymour, Inc. v. Int'l Trade Comm'n*, 617 F.3d 1319, 1327 (Fed. Cir. 2010) (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478 (Fed. Cir. 1998)). The ALJ may not rely on the prosecution history to construe the meaning of the claim to be narrower than it would otherwise be unless a patentee limited or surrendered claim scope through a clear and unmistakable disavowal. *Trading Tech. Int'l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1352 (Fed. Cir. 2010) (internal citations omitted); *Vitronics*, 90 F.3d at 1582–83. For example, the prosecution history may inform the meaning of the claim language by demonstrating how an inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it otherwise would be. *Vitronics*, 90 F.3d at 1582-83; *see also Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (stating, "The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution."); *Microsoft Corp. v. Multi-tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (stating, "We have held that a statement made by the patentee during prosecution history of a patent in the same family as the patent-in-suit can operate as a disclaimer."). The prosecution history includes the prior art cited, *Phillips*, 415 F.3d at 1317, as well as any reexamination of the patent. *Intermatic Inc. v. Lamson & Sessions Co.*, 273 F.3d 1355, 1367 (Fed. Cir. 2001).

Differences between claims may be helpful in understanding the meaning of claim terms. *Phillips*, 415 F.3d at 1314. A claim construction that gives meaning to all the terms of a claim is preferred over one that does not do so. *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir.), *cert. denied*, 546 U.S. 972 (2005); *Alza Corp. v. Mylan Labs. Inc.*, 391 F.3d 1365, 1370 (Fed. Cir. 2004). In addition, the presence of a specific limitation in a dependent claim raises a presumption that the limitation is not present in the independent claim. *Phillips*, 415 F.3d at 1315. This presumption of claim differentiation is especially strong when the only difference between the independent and dependent claim is the limitation in dispute. *SunRace Roots Enter. Co., v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003). "[C]laim differentiation takes on relevance in the context of a claim construction that would render additional, or different, language in another independent claim superfluous." *AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1247 (Fed. Cir. 2007).

Finally, when the intrinsic evidence does not establish the meaning of a claim, the ALJ may consider extrinsic evidence, *i.e.*, all evidence external to the patent and the prosecution history, including inventor testimony, expert testimony and learned treatises. *Phillips*, 415 F.3d at 1317. Extrinsic evidence may be helpful in explaining scientific principles, the meaning of technical terms, and terms of art. *Vitronics*, 90 F.3d at 1583; *Markman*, 52 F.3d at 980. However, the Federal Circuit has generally viewed extrinsic evidence as less reliable than the patent itself and its prosecution history in determining how to define claim terms. *Phillips*, 415 F.3d at 1318. With respect to expert witnesses, any testimony that is clearly at odds with the claim construction mandated by the claims themselves, the patent specification, and the prosecution history should be discounted. *Id.* at 1318.

If the meaning of a claim term remains ambiguous after a review of the intrinsic and extrinsic evidence, then the patent claims should be construed so as to maintain their validity. *Id.* at 1327. However, if the only reasonable interpretation renders a claim invalid, then the claim should be found invalid. *See Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999).

B. The '471 Patent

1. Level of Skill in the Art

FlashPoint contends that a person of ordinary skill in the field of technology addressed by the '471 Patent at the time of the invention would have had a Bachelor's degree in electrical engineering or a related field with five years of work experience or a Master's degree in electrical engineering with two years of work experience in the design and operation of consumer electronic devices and their software. (CIB at 10 (citing CX-0614.1C at Q/A 36).) Respondents contend that a person of ordinary skill in the field of technology addressed by the '471 Patent at the time of the invention would have had a Bachelor's degree in electrical engineering or the equivalent, along with two to three years of work experience in digital imaging devices. (RIB at 15 (citing RX-1085.2C at Q/A 187; RX-2184C at Q/A 22).)

The parties do not press the significance of the differences between their respective definitions of the level of skill in the art for the '471 Patent, nor does the ALJ perceive them to be important to the resolution of this investigation. Both definitions require at least a bachelor's degree in electrical engineering or a related field and some work experience. The parties differ slightly in the amount and type of work experience. Respondents would require that the work experience be with digital imaging devices, while for FlashPoint's definition experience with "consumer electronic devices" would suffice although FlashPoint would require five years of experience in that field versus Respondents only requiring two to three years. This seems roughly the same because while Respondents would require the work experience in a more specific field, they require less of it. FlashPoint, on the other hand, would permit more generic work experience, but requires more of it. Thus, the differences seem to wash out. FlashPoint also proffers a variant of the person of ordinary skill with a Master's degree that would only require two years of work experience. FlashPoint offers no explanation why a Master's degree would be worth three years of work experience and the ALJ cannot necessarily see one. There is the potential for a lot of variation in what a Master's degree could be worth in terms of work experience depending on whether it included a thesis and what topic of the thesis was. FlashPoint doesn't really address this potential variation and without greater specificity, it is difficult to assess the Master's degree variant FlashPoint offers. Accordingly, the ALJ sticks with what the parties essentially agreed upon and finds that a person of ordinary skill would have a bachelor's degree in electrical engineering or a related field with either five years of work experience in consumer electronic devices or 2 to 3 years of work experience with digital imaging devices. (CX-0614.1C at Q/A 36; RX-1085.2C at Q/A 187; RX-2184C at Q/A 22.)

2. "operating system" (Claim 1)

FlashPoint	software that manages hardware resources of the digital device
Respondents	software on the device that directly controls the allocation and usage of the hardware resources

The principal dispute between the parties is where to draw the line between the operating system and the image processing subsystem. This dispute ripples through a number of the disputed claim terms. The parties have chosen slightly different places in the claim to fight this battle and have taken positions varying in their degree of aggressiveness. FlashPoint attempts to cram as much into the "image processing subsystem" as possible, and at the same time limit the "operating system." Respondents, on the other hand, make their arguments primarily under the guise of construing "operating system" and (for the most part) merely seek to prevent things, such as the kernel, from being categorically excluded from the "operating system." The parties also continue this dispute in various side skirmishes in "processing mode" and the claim phrase "said operating system is independent of said processing mode used by said image processing subsystem."

The parties agree that claimed "operating system" manages hardware resources of the digital device. (CIB at 17; RIB at 16.) FlashPoint characterizes the dispute as "whether the kernel and driver components found within the image processing subsystem are also part of the claimed 'operating system.'" (CIB at 17.) FlashPoint argues that Respondents' proposed construction is contrary to "how a person of ordinary skill in the art would understand the term 'operating system' as used in the '471 Patent." (*Id.*) FlashPoint submits that "operating system" means "different things in different contexts." (*Id.*) FlashPoint argues that while "the general understanding of operating system outside the context of the '471 Patent . . . can include the kernel and drivers…," the specific meaning of "operating system" in the context of the claims and specification of the '471 Patent is different. (CIB at 17.) Specially, FlashPoint contends (based on testimony of its expert) that the Digita Operating Environment ("Digita OE") that is mentioned in the specification as an example of an operating system worked consistent with FlashPoint's construction. (CIB at 17-18.) Moreover, FlashPoint argues that Respondents' construction would exclude the preferred embodiment. (CIB at 19.) FlashPoint contends that "operating system" should be construed to "include those portions of the system that sit above the interface that sits between the operating system and the image processing system." (CIB at 20.)

In its reply brief, FlashPoint offers completely re-characterized arguments.[2] In reply, FlashPoint now contends that the dispute is over whether the operating system includes

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[2] The ALJ separates these arguments because they are almost entirely distinct from the opening brief. The ALJ is left with the impression that the authors of FlashPoint's reply brief did not read its opening brief very closely

"components that directly control the hardware resources of the image processing subsystem (*e.g.*, kernel, drivers)." (CRB at 3.) FlashPoint argues that these components are more properly part of the image processing backplane (and, hence, the image processing subsystem). (CRB at 3.) FlashPoint argues that the "operating system" and "image processing subsystem" are separate and distinct and Respondents' construction would "conflate[] portions of the image processing subsystem (*e.g.*, the backplane software and drivers) with the operating system by interpreting the 'operating system' to include components that directly manage the image processing hardware." (CRB at 3.)

Respondents characterize FlashPoint's construction as an effort to limit the claimed operating system to only a portion of the operating system. (RIB at 16.) Respondents argue that FlashPoint seeks to exclude the kernel from the "operating system" even though the kernel, as "software that manage hardware resources of the digital device," meets FlashPoint's construction for "operating system." (RIB at 16.) Respondents argue that the kernel is part of the operating system under either the plain meaning or FlashPoint's construction. (RIB at 16.) Respondents argue that the intrinsic evidence including other claims and the prosecution history supports a broad reading of "operating system." (RIB at 16-17.) Respondents also note that FlashPoint's construction is counter to the ordinary meaning of "operating system" and there is no clearly expressed intent to deviate from the ordinary meaning of "operating system" in order to assign it

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because many of the positions in the reply brief contradict or radically alter positions in the opening brief. (*Compare* CIB at 18-19 (discussing actual implementation of Digita OE and why it supports claim construction) and CIB at 20 (stating Figure 4 and 5 do not "establish the relationship between the components in those diagrams") *with* CRB at 7-8 (claiming it never relied on the implementation of Digita OE for claim construction) and CRB at 9-10 (relying on Figure 4 and 5 to show position of drivers within "kernel-space"). These alterations are not explained and do not always appear to be directly in response to arguments Respondents made. In fact, the reply brief largely talks past Respondents' arguments. While the ALJ does not encourage parties to hold fast to losing positions, unexplained, radical changes (particularly by the Complainant construing its own patents) undermines the ALJ's confidence in that party's arguments.

a unique definition. Respondents also argue there is no evidence of any intent to act as its own lexicographer or to disclaim claim scope. (RIB at 18.)

The ALJ rejects FlashPoint's constructions. FlashPoint's ever shifting claim construction arguments make it difficult to know where to begin. However, the ALJ finds that regardless of whether you begin with the FlashPoint's original contention that the operating system should "include those portions of the system that sit above the interface that sits between the operating system and the image processing system" or its completely new construction that the operating system does not include "components that directly control the hardware resources of the image processing subsystem (*e.g.*, kernel, drivers)," FlashPoint's efforts to read significant limitations into the term "operating system" must fail.[3]

When the clutter of the changing arguments and Respondents' eagerness for a non-infringement ruling is cleared away, this becomes a much easier case. There is no dispute among the parties that general meaning of the term "operating system" does not include the limitations that FlashPoint seeks. Moreover, contrary to what FlashPoint tries to argue, Respondents do not appear to contend that ordinary meaning of operating system requires that the kernel and drivers must always be part of the operating system. Rather, Respondents offer evidence that shows that the kernel is usually part of the operating system, and that a construction that expressly excluded the kernel would be very idiosyncratic indeed, requiring some clear statement from patentee to act as its own lexicographer or disclaim claim scope. The ALJ agrees.

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[3] The confusion in the parties' arguments is not all fault of FlashPoint's shifts. Respondents add to the confusion by overreaching and seeking, in effect, a non-infringement ruling, that the kernel and drivers are part of the operating system, under the guise of claim construction. Respondents' arguments about whether a kernel is part of the operating system or not require applying the claim construction to the facts and are properly considered in the context of non-infringement, not here. Thus, the ALJ focuses on the narrow question of whether the term "operating system" should have its ordinary meaning or whether it should be limited in one of the ways that FlashPoint suggests.

The Federal Circuit has identified two situations where the patentee can deviate from the ordinary meaning of a claim term: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner*, 669 F.3d at 1365. Neither of those situations is present here. Indeed, FlashPoint does not attempt to argue either exists. FlashPoint does not meet the *Thorner* standard and that should be sufficient to resolve this dispute, but we need to go a bit further. This is because FlashPoint instead asserts that the "context" of the patent specification compels its construction. However, even under this broader approach there is no basis for reading these limitations into the claims.

FlashPoint's reliance on "context" fails because, even setting aside the *Thorner* requirements for definition or disclaimer, there is nothing in the intrinsic evidence that hints at FlashPoint's construction. Indeed, the extremely limited discussion of drivers and kernel in the specification and prosecution history suggests a broader construction is appropriate.

Unfortunately, the specification is not particularly helpful in definitively resolving what have become the essential questions of this case. This is perhaps because while background of the invention, summary of the invention, the summary at the end of the preferred embodiment, and the claims all focus on the importance of the operating system to the invention, they do so only at a very high level. The part of the specification that actually gets down to level of this dispute barely discusses the "operating system" at all. The few relevant portions of the intrinsic evidence that are relevant are not helpful to FlashPoint's efforts.

For example, the specification does tell us that: "In the preferred embodiment, CPU 344 runs an operating system capable of providing a menu-driven graphical user interface (GUI)) and software image processing. An example of such software is the Digita Operating Environment by FlashPoint Technology of San Jose, Calif." (JX-0001 at 5:49-54.) This is not particularly helpful by itself, but it does not suggest a definition of operating system that deviates significantly from the ordinary meaning of that term.

The only other discussion of the operating system describing its components explicitly tells us that: "Kernel 376 provides basic underlying services for the operating system of digital camera 100." (JX-0001 at 8:4-6.) FlashPoint argues that this supports its construction because it says "underlying services." The ALJ disagrees. As Respondents point out, simply because something provides "underlying services" does not mean it is not part of the operating system. For example, one can say that "the engine provides power for the automobile" or the "the suspension provides support for the automobile" and still understand that the engine and suspension are part of the automobile. Indeed, the "underlying support" statement in the specification suggests that the kernel is part of the operating system because it provides the underlying services to the operating system—it is the "underneath the hood," if you will, of the operating system. In any event, it does not necessarily support the narrow reading FlashPoint puts forward.

In addition to operating system and kernel, there is small discussion of drivers. The specification states: "Drivers 374 are for controlling various hardware devices within the digital camera 100, such as the motors used to adjust the lens to change focus." (JX-0001 at 7:66-8:1.) This statement also does not support FlashPoint's construction. FlashPoint does not contend that the "motors to adjust lens focus" are part of the "image processing subsystem" and there is no discussion of the "other" drivers that FlashPoint argues must be part of the "image processing subsystem."

Perhaps sensing this utter lack of explicit support, FlashPoint relies heavily on its expert and other extrinsic evidence to "interpret" the descriptions of the preferred embodiment to find support for its construction. This guided exploration of the specification with the expert follows two paths.

First, FlashPoint and its expert point to the specification's reference that the Digita OE is an example of an operating system. (CIB at 18.) FlashPoint contends that this example is important "because it highlights the fact that the patentee did not intend for the term 'operating system' to refer generally to the low-level functionality that is provided by the kernel and drivers." (CIB at 18.) In its opening brief, FlashPoint asserted that "consistent with the invention of the '471 Patent, the 'operating system' manages the 'image processing subsystem' indirectly through an interface." (CIB at 18.) [redacted] FlashPoint contends that "t]he understanding that the kernel is below, and separate from the claimed 'operating system' is reflected in the specification, which states: '[k]ernel 376 provides basic *underlying* services for the operating system of digital camera 100.'" (CIB at 18 (emphasis added in brief).) Thus, FlashPoint argues that Respondents' contention that the kernel must be part of the claimed operating system should be rejected. [redacted]

[redacted] *Cf. SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc) ("Infringement, literal or by equivalence, is determined by comparing an accused product not with a preferred embodiment described in the specification, or with a commercialized embodiment of the patentee, but with the properly and previously construed claims in suit."); *see also White Consolidated Indus., Inc. v. Vega Servo-Control, Inc.*, 713 F.2d 788 (Fed. Cir. 1983) (confidential source code of commercial product cannot enable).

Instead, FlashPoint now asserts that it was relying on the use of the term "operating environment" (although, it was not) to demonstrate that "the '471 Patent equates the term 'operating system' with an 'operating environment,' to show that the 'operating system' does not refer to low level software that directly uses the image processing hardware as interpreted by Respondents." This leap, with no other textual support, to effectively rewrite the claims to substitute the narrower "operating environment" for "operating system" would be perilous under the best of circumstances, *see Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F. 3d 1379, 1383 (Fed. Cir. 2008) ("Courts cannot rewrite claim language."), but seems downright fatal when the only references are in what is repeatedly referred to as "the preferred embodiment," *see Kara Tech. Inc. v. Stamps.com, Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009). Indeed, it is persuasive that the patentee knew of the narrower term and expressly rejected it in favor of the broader "operating system." Thus, FlashPoint's first path appears to be a dead end for its construction.

Second, relying on its expert, FlashPoint asserts that construing the claimed "operating system" to include the drivers and kernel, which it contends are components of the image processing subsystem, would improperly read out the preferred embodiment. (CIB at 18-19 (citing CX-0614.C at Q/A 81).) FlashPoint argues that the preferred embodiment "contemplates the addition of a DSP and JPEG hardware, which would require the addition of drivers." (CIB at 19.) FlashPoint contends that "[i]f the drivers were part of the 'operating system,' the claimed independence of between the 'operating system' and 'processing mode of the image processing subsystem' could never be achieved because the operating system would include the parts of the image processing subsystem required to change when one image processing subsystem is swapped out for another." (CIB at 19.) FlashPoint argues that Respondents' experts have admitted that a person of ordinary skill in the art in 1999 would understand that, when hardware is changed, drivers are also changed. (CIB at 19.) FlashPoint also points to "admissions" that it then claims that Respondents' experts have made that various figures in the patent that embody the invention would require switching the drivers. (CIB at 19.) FlashPoint contends that these "admissions" support its construction of "operating system" that excludes the drivers and configuration software "which would be swapped out when changing the image processing subsystem." (CIB at 19-20.) The ALJ does not find FlashPoint's arguments persuasive because they go far beyond the disclosure and discussion of the actual patent to a world of speculation about how the preferred embodiment might work. As Respondents' experts testified, there were equally plausible ways to construct the preferred embodiments that would meet Respondents' construction. (RX-2184C at Q/A 193; Tr. 193:19-194:9; 719:7-720:7.) Thus, FlashPoint's speculation about how the preferred embodiment might work does not compel its narrower construction and also is a dead end for its construction.

In light of the paucity of support in the intrinsic record, the ALJ rejects FlashPoint's gloss on the construction of "operating system," and simply construes "operating system" as having its plain and ordinary meaning of "software that manages hardware resources of the digital device."

3. "image processing subsystem" (Claim 1)

FlashPoint	hardware, software, or a combination of hardware and software that performs image processing tasks
Respondents	hardware, software, or a combination of hardware and software for processing captured raw image data and compressing the processed image data

The parties continue their dispute regarding the line between the "image processing subsystem" and the "operating system" into their disputes over the construction of "image processing subsystem." The parties oddly do not seem to fight over the actual claim constructions they propose. Rather, their dispute has devolved into several side disputes not reflected in their proposed constructions. As FlashPoint admits, the parties "agree that the image processing subsystem is made up of hardware, software, or a combination of hardware and software." (CIB at 11.) Respondents agree. (RIB at 27.) FlashPoint contends that Respondents' requirement that the image processing subsystem "must process raw image data and perform compression" is "immaterial." (CIB at 11.) Instead, FlashPoint offers two "material" disputes that it contends remain. (CIB at 12.) First, FlashPoint argues that the parties dispute whether the definition of "image processing" adopted by the patent examiner during the reexamination should apply. (CIB at 12.) Second, FlashPoint contends that the parties dispute whether the "image processing subsystem includes the driver and configuration software that coordinates the functioning and communication of various image processing stages and handles the data flow between those various stages." (CIB at 12.)

In support of its second point, FlashPoint argues that the '471 Patent consistently describes that the image processing subsystem includes "modules that perform image processing (*i.e.*, manipulate image data) as well as software (*e.g.*, drivers, configuration software) that coordinates the functioning and communication of the various image processing states and handles the data flow between those stages." (CIB at 13.) FlashPoint points to various embodiments in the specification that it claims supports this contention. (CIB at 13.) Further, FlashPoint argues for the mixed hardware and software embodiment, "a person of ordinary skill in the art would understand that drivers would need to be added to this hardware/software architecture because of the addition of the DSP and JPEG hardware relative to the software architecture described in the '471 Patent." (CIB at 13.) FlashPoint contends that "[t]hese added drivers would be part of the image processing subsystem, as they 'coordinate[] the functioning and communication of various image processing modules.'" (CIB at 13.) FlashPoint also argues that for the hardware only embodiments the drivers would also need to be changed relative to the hardware/software embodiments. (CIB at 14.) FlashPoint asserts that Respondents' experts "agree that the software that controls the image processing subsystem, *e.g.*, drivers and configuration software, is part of the image processing subsystem." (CIB at 14.) FlashPoint contends that "[t]his understanding is critical, because it acknowledges that changing the drivers when swapping from one image processing subsystem to another merely represents a change to the image processing subsystem." (CIB at 14.) FlashPoint argues that "because the '471 Patent teaches that the image processing subsystem is separate and distinct from the operating system, a change to the driver would not result in a change to the operating system claimed and described in the '471 Patent." Thus, FlashPoint concludes that "the ALJ should construe 'image processing subsystem' to include the hardware, software, or combination of hardware and software that performs image processing, in addition to the software that coordinates the functioning and communication of the various image processing stages and handles the data flow between various stages of the image processing subsystem (*e.g.*, drivers, configuration)…." (CIB at 14.)

Respondents argue that their construction, which is based on FlashPoint's arguments during the reexamination should be adopted. (RIB at 27.) Respondents complain that FlashPoint's construction that the "drivers and configuration software" is improper. (RRB at 4.) Respondents argue that while the '471 Patent discusses and depicts drivers, but never states that drivers are part of the image processing subsystem or even the "image processing backplane" as FlashPoint now contends. (RRB at 4.) Moreover, Respondents argue that in their infringement analysis, FlashPoint goes even further to include the kernel in the image processing subsystem, which Respondents argue is not supported by any intrinsic evidence. (RRB at 5.) Respondents also cite to various testimony that they argue supports their contention. (RRB at 5-6.) Finally, Respondents note that FlashPoint's argument that a person of ordinary skill would understand that the drivers would need to be changed when the image processing hardware is changed does not support FlashPoint's argument that the drivers are necessarily part of the image processing subsystem. Respondents contend that a device can be designed consistent with the claims and preferred embodiments where the drivers are neither part of the kernel of the operating system nor part of the image processing backplane. (RRB at 6.)

The ALJ notes at the outset that there are several problems with FlashPoint's briefing of its claim construction proposal. First, it is not entirely clear what FlashPoint's actual "construction" of this term is. On page 11 of its opening brief, it offers one "proposed construction," but on page 14 it ask the ALJ it offers a much more fulsome construction. Given most of its argumentation appears to be directed at that more fulsome construction, the ALJ assumes that is what FlashPoint is actually proposing. Second, FlashPoint asks the ALJ to adopt the patent examiner's construction of "image processing" used in the reexamination, but FlashPoint never states in its brief what that definition actually was.

The ALJ notes that the parties' proposed constructions largely overlap. The ALJ has located what he believes is the definition of "image processing," which is that "image processing" is the "analysis, manipulation, storage, and display of graphical images from sources such as photographs, drawings, and video." (JX-0021.0007.) Respondents do not appear to dispute that definition. (RIB at 73.) Thus, the ALJ accepts that definition. With that resolved, the principal dispute between the parties appears to be whether the image processing subsystem includes "software that coordinates the functioning and communication of the various image processing stages and handles the data flow between various stages of the image processing subsystem (*e.g.*, drivers, configuration)." The ALJ does not believe that the "image processing subsystem" necessarily includes or excludes this software, and so rejects FlashPoint's construction.

Beginning with the claim language, the phrase "image processing subsystem" suggests that it is a smaller part of larger device and it is primarily focused on image processing. FlashPoint's construction would add significant activities that are not necessarily "image processing" to the "image processing subsystem," which would seem to suggest that they are improperly incorporating software into the "image processing subsystem" that does not necessarily have to be there. The claim language certainly does not forbid all the software FlashPoint seeks to incorporate into the "image processing subsystem," but it does not require it either.

The specification uses the term "image processing subsystem" very broadly stating that:

> One subsystem of particular interest is the image processing subsystem that is used for analyzing and manipulating captured image data in a variety of ways, including linearization, defect correction, white balance, interpolation, color correction, image sharpening, and color space conversion. In addition, the subsystem typically coordinates the functioning and communication of the various image processing stages and handles the data flow between the various stages.

(JX-0001 at 1:30-40.)

This broad functional description is consistent with how the term "image processing subsystem" is used throughout the specification. Indeed, the specification's focus is on the existence of many different types of "image processing subsystems." (*See, e.g.*, JX-0001 at 8:29-45 (discussing the three different modes or types of image processing subsystems).) There is nothing in this broad language that requires certain components, such as drivers or configuration software be part of the image processing subsystem. Moreover, the specification's sparse use of drivers says nothing that requires that the "drivers" be part of the "image processing subsystem." (*See* JX-0001 at 7:66-8:4 ("Drivers 374 are for controlling various hardware devices within the digital camera 100, such as the motors used to adjust the lens to change focus. Hardware abstraction layer (HAL) defines a standard interface between toolbox 373/drivers 374 and the implementation hardware specific to the make and model of the digital camera."). None of this discussion requires that the drivers be part of the "image processing subsystem."

In the end, FlashPoint seeks to do with respect the '471 Patent the same thing it accuses Respondents of doing with respect to the other asserted patents. Namely, read limitations into the claims. There is no basis for requiring that the drivers and configuration be part of the image processing subsystem. FlashPoint does not object to any other part of Respondents' construction for this term. Accordingly, the ALJ adopts Respondents construction that the "image processing subsystem" is "hardware, software, or a combination of hardware and software for processing captured raw image data and compressing the processed image data."

4. "processing mode" (Claim 1)

FlashPoint	hardware and/or software configuration for image processing
Respondents	a specific architecture selected from the following types of architectures, *i.e.*, software architecture, software/hardware architecture, and hardware architecture

Once again, the parties largely agree on the construction, but have side disputes about what the constructions mean. FlashPoint characterizes the dispute as to "what constitutes a 'hardware,' 'software,' or 'hardware/software' processing mode." (CIB at 15.) FlashPoint argues that the terms "hardware" and "software" as used in the '471 Patent are "relative terms." (CIB at 15.) FlashPoint contends that "'software' does not mean that there is no hardware; rather, it is understood that the software would need some hardware, *e.g.*, a CPU, to run." (CIB at 15.) FlashPoint further argues that "hardware" refers to "dedicated hardware, as opposed to general purpose hardware to run software (*e.g.*, a CPU)." (CIB at 15.) FlashPoint asserts that "[t]he term 'processing mode' refers to the hardware and/or software components that are used to process or manipulate the image data." (CIB at 15.) FlashPoint contends that "different processing modes [can] correspond to the same architecture…" and "different configurations of software image processing modules can correspond to a software architecture." (CIB at 16.)

FlashPoint argues that Respondents appear to define the type of "processing mode" not only based only on the modules that perform image processing, but also on the software required to configure hardware image processing modules. (CIB at 16.) FlashPoint asserts that this reading would read out the preferred embodiments of the '471 Patent because the presence of the control software would result in the hardware image processing subsystem being classified as a hardware/software image processing mode. (CIB at 16.) FlashPoint argues that the ALJ should interpret "processing mode" to refer to the configuration of hardware and/or software used to perform image processing (*i.e.*, manipulate image data), and reject Respondents' argument that control software in the image processing subsystem defines the type of processing mode. In its reply brief, FlashPoint contends that it agrees with Respondents that processing mode corresponds to the architecture of image processing subsystem in a device and that the parties appear to be in agreement on that point. (CRB at 10.)

Respondents argue that FlashPoint's construction is inconsistent with the specification and the reexamination prosecution history. (RIB at 22.) Respondents argue that the image processing mode is the type of architecture built into a device. (RIB at 22-23.) Respondents further assert that FlashPoint disclaimed its current arguments and FlashPoint admitted that the "processing mode" is a type of architecture. (RIB at 23-24.) Respondents conclude that "a processing mode takes into account every image processing component that is enabled in the device as built, whether or not that component is used for every image processing task." (RIB at 25.) Respondents assert that the argument that the "'software required to configure hardware image processing modules' must be ignored when determining the 'image processing mode…'" is incorrect. (RRB at 7.) Respondents contend that their construction would not read out the preferred embodiment because in the hardware processing mode even the "image processing backplane" is implemented in hardware. (RRB at 7.)

The ALJ is somewhat at a loss to understand FlashPoint's arguments. FlashPoint's contention that "there can be different processing modes that correspond to the same architecture" (CIB at 16) does not make any sense in light of their arguments in their opening brief (CIB at 15), submitted in the reexamination, or their contention in their reply brief (CRB at 10) that they agree with Respondents that the processing mode corresponds to the architecture of the device. FlashPoint seems to have conceded to Respondents' construction except for one point: Whether a "hardware processing mode" can never include software or a "software processing mode" can never include hardware. There is nothing in the specification that commands such a wooden construction, nor do Respondents' point to anything. Without some specific support, the ALJ will not read this addition limitation into the claim. As for whether FlashPoint is correct that "control software" can be included in a hardware mode, those are factual questions that depend on the particular hardware and the particular software.

5. "said operating system is independent of said processing mode used by said image processing subsystem" (Claim 1)

FlashPoint	"said operating system is independent of said processing mode": an operating system that can support different processing modes through an interface without having to change the operating system
Respondents	the operating system remains unchanged regardless of which processing mode (*i.e.* architecture type) is used, so in effect one image processing subsystem could be swapped out and another swapped in without the operating system having to recognize that a change occurred

The parties' dispute regarding this phrase appears to be really a rehashing of their dispute about their constructions of "operating system" and "image processing subsystem." The parties agree that the "operating system" must be independent of the "image processing subsystem." The heart of the dispute is what constitutes the "operating system" and "image processing subsystem." If Respondents' definition of these two terms is adopted, then they argue that the "operating system" and "image processing subsystem" in the accused products are not "independent." (RRB at 6.) FlashPoint does not dispute this, but instead argues (as discussed above) that Respondents' definitions for "operating system" and "image processing subsystem" are incorrect. (CRB at 8-10.) With that understanding, the ALJ does not perceive any real difference (and the parties do not submit that one exists) between these two definitions. Respondents' construction is lifted almost verbatim from the end of the summary at the end of the specification. It is clear and concise. The ALJ does not find (and FlashPoint does not contend) that it reads any extraneous limitation into the claim. As for FlashPoint's contentions that Respondents seek to read the claimed "interface" out of the claims (CRB at 9), it suffers from the fundamental flaw (which infects nearly all of FlashPoint's constructions) of being based on the accused devices and not the intrinsic evidence. FlashPoint seems to begin every construction for this patent with how Respondents' products function and then endeavors to create a construction that will encompass those products. Inevitably, the only support for such a construction is *ipse dixit* of FlashPoint's expert. This simply isn't a proper methodology of claim construction. *NeoMagic Corp. v. Trident Microsystems, Inc.*, 287 F.3d 1062, 1074 (Fed. Cir. 2002) (holding "claims may not be construed with reference to the accused device"). Accordingly, the ALJ adopts Respondents' construction and construes the term to mean: "the operating system remains unchanged regardless of which processing mode (*i.e.*, architecture type) is used, so in effect one image processing subsystem could be swapped out and another swapped in without the operating system having to recognize that a change occurred."

6. "memory unit"

FlashPoint	(no construction)
Respondents	a piece, or a collection of pieces, of a type of memory

Respondents seek construction of the term "memory unit." (RIB at 27-28.) FlashPoint argues that no construction of the term is necessary. (CIB at 22.) Respondents assert that a construction of this term is necessary because FlashPoint does not apply the ordinary meaning of the term in its infringement analysis. (RIB at 27.) Respondents argue that FlashPoint "stretches the meaning of 'memory unit' to include all memory pieces of the device, including memory pieces of different types (*e.g.*, volatile and non-volatile)." (RIB at 28.) Respondents contend this reads the word "unit" out of "memory unit." Respondents assert that if "memory unit" referred to all memory pieces of the device, claim 1 would not separately recite the "data storage unit." (RIB at 28.) Moreover, Respondents argue that a person of ordinary skill in the art would not understand "memory unit" to cover different types of memory. (RIB at 28.) Rather, Respondents contend that "memory unit" would be understood as one or more memory pieces of the same type. (RIB at 28.) FlashPoint only submits that "the Parties agree that the volatile memory, or RAM, can satisfy the 'memory unit limitation[]" and "limiting the memory unit to RAM does not avoid infringement." (CRB at 10.) FlashPoint argues this because it offers two different infringement theories covering either construction. [redacted]

The ALJ does not believe that any construction of this term is necessary. A person of ordinary skill in the art would have no trouble understanding the meaning of "memory unit." Moreover, there is nothing in the claims that requires that the memory be single "type" of memory as Respondents contend. The word "unit" does not necessarily mean that the memory is a single type. It is conceivable that a memory unit could have separate forms of memory. The only requirement the plain meaning of the word "unit" imposes is that the "unit" be a distinct grouping of memory. Moreover, Respondents' argument that if the memory is not a single "type" it would read out the "data storage element" limitation is also not necessarily true. It is easy to conceive of a device with a "memory unit" that could include different "types" of memory, but still have a separate "data storage element" as required by the claims. Thus, the claim language does not support Respondents' construction. [redacted]

[redacted] The specification certainly supports the operating system and data structure being stored in non-volatile memory or DRAM. (*See* JX-0001 at 6:31-41 (discussing use of DRAM for various storage functions in the preferred embodiment).) Accordingly, the ALJ finds that there is no construction necessary of this term.

7. "coupled to"

FlashPoint	Includes both direct and indirect connections
Respondents	"directly and physically attached to"

FlashPoint argues that the plain meaning of "coupled to" does not require a "direct" connection as Respondents contend. (CIB at 22-23.) FlashPoint asserts that the specification teaches indirect contentions. (CIB at 23 (quoting JX-0001 at 5:40-41).) Respondents argue that if FlashPoint's construction is adopted that it "would lead to the absurd result that any two components that can pass data between them are 'coupled' to each other . . ., in which case these claim limitations would be no limitation at all." (RIB at 37.)

The ALJ agrees with FlashPoint that there is nothing that restricts "coupled to" to only "direct connections." *See Bradford Co. v. Conveyor N. Am., Inc.*, 603 F.3d 1262, 1270 (Fed. Cir. 2010). Respondents' only argument that it would lead to "absurd results" is not convincing because the term still requires that there be some connection. Whether the connection is sufficient to be "coupled to" is a factual question. Accordingly, the ALJ adopts FlashPoint's construction and holds that "coupled to" includes both direct and indirect connections.

8. "data structure"

FlashPoint	"data structure": an organized collection of data

Respondents	"data structure corresponding to said processing mode": buffers containing image data, wherein the buffers are part of the memory unit and configured for one of the three architecture types – software architecture, combined software and hardware architecture, or hardware architecture

Respondents seek a construction of the term "data structure." Respondents argue that "[t]he language of claim 1 makes clear that the 'data structure' is composed of buffers for managing image data, and therefore cannot be the data itself, as FlashPoint proposed." (RIB at 28.) Respondents contend that "[d]uring reexamination, FlashPoint also stated that the data structure manages image data, and therefore cannot be the data itself." (RIB at 28.) FlashPoint responds that it does not believe that any construction of this term is necessary. (CIB at 22.) FlashPoint argues that Respondents' definition is incorrect and mischaracterizes FlashPoint's proposed construction. (CIB at 22.) FlashPoint argues that 'the claim itself defines the data structure to include a plurality of buffers for managing said image data for said image processing system during image processing' and 'provid[e] an interface between said operating system and said image processing mode used by the image processing subsystem.'" (CIB at 22.) FlashPoint asserts that its definition does require that the "data structure" include a plurality of buffers, so there is not apparent dispute between the parties. (CRB at 10.)

The ALJ cannot discern what the dispute between the parties regarding this term is and why it has any significance to this investigation. The parties barely develop their claim construction arguments in their briefs, and largely seem to speak past each other. FlashPoint provides no justification or support for its proposed construction—"an organized collection of data." However, Respondents do not provide any justification for their rather comprehensive construction either. The ALJ rejects both constructions and finds that no construction of this term is necessary because the term has a well-established meaning in the art and there is no evidence in the intrinsic evidence that would warrant a different construction. *See Thorner*, 669 F.3d at 1365-67.

Beginning with claim language, the claim language itself provides detail of the role and purpose of the "data structure" by explaining that "said memory unit further having a **data structure** corresponding to said processing mode, said **data structure** comprising a plurality of buffers for managing said image data for said image processing subsystem during image processing, said **data structure** providing an interface between said operating system and said image processing subsystem, such that said operating system is independent of said processing mode used by said image processing subsystem…." (JX-0001 at 14:51-59.) The unasserted dependent claims of claim 1 explain that image data is "transferred" into "read out of" the "data structure" (claims 4 and 5). It is immediately apparent that both parties' constructions either conflict with or are redundant of the claim language. The claim language makes clear that the "data structure" is not the data itself (as FlashPoint obliquely admits in its briefs), but the logical and memory structures that contain the data and interact with the various subsystems within the device. Thus, the construction "an organized collection of data" cannot be correct.

At the same time, Respondents' construction contains a number of limitations that simply repeat other language from the claim, such as the requirement that the "data structure" include "buffers" and be "part of the memory unit." The claim already provides those requirements, so adding that to the construction of "data structure" is unnecessary and confusing. Finally, the requirement Respondents seek to impose that the "data structure" be "configured for one of the three architecture types – software architecture, combined software and hardware architecture, or hardware architecture" appears to be an effort to shoehorn a limitation argued with respect to other claim terms into data structure. There is no evidence in the claim language that the patentee intended to use the term "data structure" in such an idiosyncratic way. The ALJ finds no support in the claim language for adding this last requirement because the term "data structure" has a plain and well-understood meaning in the art that does not include such an explicit requirement of three architecture types. If that limitation should be included with respect to this term, it must find support elsewhere because there is none in the claim language.

The specification also demonstrates that FlashPoint's definition is inadequate. The specification is similar to the claim language and states that the "data structure" is for "managing the image data for the image processing subsystem during image processing" (JX-0001 at 2:42-43) and that it "provides an interface between the operating system and the image processing subsystem" (*Id.* at 2:44-45). In addition, the specification explains that data is transferred into the "data structure" from the spooler (*Id.* at 2:49-50) and that the "data structure" is "created" and "initialized" before the data is transferred into it (*Id.* at 3:1-10). Furthermore, the specification explains that the "data structure" is "flexible enough that different imaging processing subsystems can be implemented without affecting the software/hardware architecture that surrounds the subsystem…" and that "[t]he data structures provide a well-defined interface for entering and exiting the image processing subsystem without changing or perturbing the upstream and downstream elements of the digital camera." (*Id.* at 3:18-26.) This is clearly not a collection of data but a tool for managing and handling the data.

As for Respondents' construction, Respondents cite to nothing in the specification that requires narrowing it beyond its plain and ordinary meaning. Indeed, the ALJ finds that the specification is clear data structure is used in its plain and ordinary meaning. Many of the limitations that Respondents seek already exist in other claim limitations. The claims and specification contain no evidence that the patentee intended to depart from the plain and ordinary meaning of this term.

Finally, the prosecution history also supports the rejection of FlashPoint's construction and the adoption of plain and ordinary meaning. For example, during the reexamination, FlashPoint explained that "the data structure is used to manage image data as the image data is being processed . . ." and that "[t]he data structure manages the image data by providing a vehicle in which the image processing system can store and access information during image processing." (JX-0004 at 1319.) This statement is consistent with the plain and ordinary meaning of this term and demonstrates that the construction "an organized collection of data" is incorrect.

Respondents merely seek to impose extraneous limitations into the well-known term "data structure" and the ALJ rejects their construction as unnecessary. While FlashPoint's definition has the benefit of being simple, it is simply not correct and inconsistent with the intrinsic evidence. Accordingly, the ALJ determines that neither party has shown any intrinsic evidence that warrants giving the term "data structure" anything other than its plain and ordinary meaning.

C. The '190 Patent

1. Level of Skill in the Art

FlashPoint argues that the person of ordinary skill in the art at the time of the invention would have had a bachelor's degree in electrical engineering or a related field and five years of work experience, or a Master's degree in electrical engineering or related degree with two years of work experience in the design and operation of consumer electronics devices and their software. (CIB at 79-80 (citing CX-0614.1C at Q/A 36).) Respondents argue that the level of ordinary skill would be a bachelor's degree in computer science, or a related degree, with five years of work experience in the design and operation of consumer electronic devices and their software, or a master's degree in computer science, or a related degree, with two years of work experience. (RIB at 78 (citing RX-1084.4C at Q/A 89; RX-1330).)

As with the '471 Patent, the parties do not press the significance of the differences between their respective definitions of the level of skill in the art for the '190 Patent, nor does the ALJ perceive them to be important to the resolution of this investigation. The parties differ slightly on the education of the person of ordinary skill. FlashPoint offers an electrical engineer or related field and Respondents offer a computer scientist. Both sides require at least a bachelor's degree and five years of work experience the design of consumer electronic devices and software for such devices. However, both sides also agree a master's degree with only two years of work experience will also do.

The ALJ does not perceive any important difference between an electrical engineer with this type of work experience and a computer scientist, nor do the parties offer any. Moreover, it appears that each side's skilled artisan would fit into the "related degree" catch-all that both definitions include. Accordingly, the ALJ finds that because the two definitions are essentially the same, that a person of ordinary skill would have a bachelor's degree in electrical engineering or computer science or a related field with five years of work experience in the design and operation consumer electronic devices and their software or a master's degree in electrical engineering or computer science or a related field with two years of work experience. (CX-0614.1C at Q/A 36; RX-1084.4C at Q/A 89; RX-1330.)

2. "Interactive Instructions"/ "a sequence of interactive instructions"

FlashPoint	Prompts that guide a user to perform specific functions

Respondents	a series of textual commands that requires displaying a first instruction to prompt the user to perform a first specific operation, and once the first specific operation is performed, automatically providing a second instruction to prompt the user to perform another specific operation

There are three principal disputes between the parties are 1) whether the "interactive instructions" should be limited to "textual commands" or not; 2) whether subsequent instructions can only be display after the user performs the specific operation prompted by the previous instruction; and 3) whether the term includes the presentation of multiple options to a user for making a selection (*i.e.*, a form). FlashPoint argues that there is no support in the intrinsic record for such limitations.

Beginning with the "textual commands" limitation, FlashPoint argues that Respondents seek to improperly import a limitation from the specification into the claims. (CIB at 81.) FlashPoint asserts that the specification confirms that "interactive instructions" are not limited to textual prompts. (CIB at 81.) FlashPoint also contends, based on the testimony of its expert, that its construction is how a person of ordinary skill would understand the term. (CIB at 82.) Respondents, on the other hand, point to statements in the prosecution history that refer to "a series of text instructions" that mention "text instructions" in the context of the "present invention." (RIB at 80-81.) Respondents also point to examples from the specification showing the use of text instructions. (RIB at 81.)

The ALJ declines to limit the "interactive instructions" to text. The plain meaning of "interactive instructions" is broad enough to encompass both "textual" and "non-textual" instructions. In addition, there is nothing in the claims or specification that evidence any manifest disclaimer of claim scope. *See Thorner*, 669 F.3d at 1366. The few citations that Respondents give to the specification are simply examples from the preferred embodiment. This is insufficient to limit the claims. *See Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327

(Fed. Cir. 2002) (declining to limit claim scope unless the patentee has demonstrated a clear intention to limit the claim scope using "words or expression of manifest exclusion or restriction"). As for the statements from the prosecution history, Respondents argue that applicants characterized the use of "text instructions" as "the present invention," thereby limiting the scope of the claims. (RIB at 80 (quoting JX-0011.00296.) However, "in order for prosecution history disclaimer to attach, the disavowal must be clear and unmistakable." *3M Innovative Prop. Co. v. Tredegar Corp.*, --- F.3d ----, 2013 WL 3984988, at *8 (Fed. Cir. Aug. 6, 2013); *see also Lazare Kaplan Int'l, Inc. v. Photoscribe Tech., Inc.*, 628 F.3d 1359, 1370 (Fed. Cir. 2010); *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003). The alleged disclaimer that Respondents rely on is anything but clear and unmistakable. The statement was made by the applicants in a background "Summary of the Invention" section of a response to an office action. The applicants did not expressly characterize use of the "text instructions" as the "present invention." It used the term "present invention" in the sentence before the discussion of text instructions. Moreover, nothing in the discussion demonstrates any intent to limit claim scope. Thus, the ALJ declines to find these statements limit the scope of the claims.

Respondents next contend that "a sequence of interactive instructions" requires that the second instruction be automatically provided only after the user performs the specific operation prompted by the first instruction. (RIB at 79.) Specifically, Respondents rely on the following statement from the reexamination:

> As clearly described in the specification and the claim language itself, the 'sequence of interactive instructions' effectively requires displaying a first instruction to prompt the user to perform a first specific operation, and once the first specific operation is performed, automatically providing a second instruction to prompt the user to perform another specific operation.

(JX-0012.006129.) Respondents further argue that FlashPoint's expert conceded that this interpretation is correct. (RIB at 80 (citing Tr. 308:24-309:18).) FlashPoint apparently offers no real argument against this contention. (*See* CRB at 39-41.) The ALJ finds that this is a clear and unmistakable definition offered by FlashPoint during the prosecution history. *See Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266-67 (Fed. Cir. 2012). Accordingly, the ALJ agrees with Respondents that the "sequence of interactive instructions" requires "displaying a first instruction to prompt the user to perform a first specific operation, and once the first specific operation is performed, automatically providing a second instruction to prompt the user to perform another specific operation."

Finally, the parties dispute whether the claims include "the presentation of multiple options to a user for making a selection" and forms. (RIB at 81.) Respondents rely on statements FlashPoint made during the reexamination to distinguish the prior art Zaurus device. Respondents argue that in arguing the claims were patentable over Zaurus during reexamination, that FlashPoint "distinguished the display of 'a sequence of interactive instructions' from displaying alternative options or a form where multiple fields are presented at once." (RIB at 81.) Respondents identify two pertinent sections from the prosecution history. First, Respondents argue that "FlashPoint distinguished displaying alternative options to a user for correcting an errant character, where the user is free to decide on the next step rather than being instructed to perform a further operation[.]" Respondents cite the following discussion from the reexamination:

> According to Zaurus, when the user selects the mistakenly converted letter, alternative options are presented to the user for selection. However, there is no indication that an updated instruction is automatically provided once the user's selection is made. On page 29, the pertinent section of Zaurus reads as follows:
>
> > In the event of a [illegible, one character means 'mistaken'], you will be asked about other candidates when you touch that character.

> > First-class text data is ultimately achieved if you select the correct characters one after another (emphasis added).
>
> Clearly, the user is required to individually select and correct mistaken characters and the cited portion of Zaurus fails to disclose a 'sequence of interactive instructions' as claimed in claim 13.

(JX-0012.6186.)

Respondents also assert that FlashPoint argued that displaying a form that allows a user to fill in the blanks to complete the form does not constitute "a sequence of interactive instructions":

> With regard to composing forms on pages 80 and 81, Zaurus simply discloses allowing a user to select an icon and open a form when the form is opened, all of the blanks for the form are presented to the user. As such, the user can simply fill in the blanks to complete the form. On page 80, the pertinent section of Zaurus reads as follows:
>
> > Compositions can be composed just by inputting according to the listed items. With regards to the method of input, when the respective form is touched, for example, when 'business trip report is touched, items that are appropriate for 'business trip report' appear such as 'date prepared,' the 'destination,' 'name of the reporter,' 'purpose of the business trip,' 'date of the business trip,' and 'description.' (emphasis added).
>
> Since all of the items for the report are simply presented to the user when the user selects the form, Zaurus fails to disclose any 'sequence of interactive instructions' as claimed in claim 13.

JX-0012.6186 (emphasis in the original). Respondents argue that FlashPoint is improperly interpreting its claims to cover either option, where the user is free to decide the next step, or where the user can fill in the blanks. (RIB at 82.)

FlashPoint contends that it did not disclaim anything. FlashPoint asserts that it said that "there is no indication that an updated instruction is automatically provided once the user's selection is made," and thus, "Zaurus fails to disclose the 'sequence of interactive instructions as claimed in claim 13." (CRB at 40 (quoting JX-0012.06130 (emphasis added).) FlashPoint argues that this did not disclaim presentation of alternative options to the user because to do so would have excluded its preferred embodiment. (CRB at 40.) FlashPoint also argues that its statements regarding the Zaurus form did not constitute a disclaimer because FlashPoint contends it only stated that simply presenting a labeled form, with nothing more, does not provide interactive instructions that are automatically updated in response to the user performing an operation that was prompted by the previous instruction. (CRB at 40.) FlashPoint argues that there was no disclaimer as to filling in multiple fields of a form; rather, FlashPoint asserts that there is only a recognition that purely static field labels do not constitute interactive instructions that automatically update in response to the user filling them out. (CRB at 40.) FlashPoint argues that Zaurus does not disclose any means for setting a user's focus onto a particular field (*e.g.*, a blinking cursor in or highlighting around field labels) to prompt a user to enter particular information. (CRB at 40-41.) FlashPoint also argues that Zaurus does not disclose labels updating in any way upon being filled out (*e.g.*, disappearing or reappearing, or the blinking cursor and highlighting automatically moving to different fields). (CRB at 41.) Thus, FlashPoint contends that "automatically updating user's focus onto a particular field to prompt a user to enter particular information can still meet the interactive instructions limitation." (CRB at 41.)

The parties' arguments are unclear because both are seeking a ruling not framed exactly by way of a claim construction (*i.e.*, definition) but rather a ruling whether certain features found in the accused devices are within the claim scope. The ALJ agrees largely agrees with FlashPoint that there was not a broad disclaimer, as Respondents contend, of claim scope arising from FlashPoint's discussion of the Zaurus reference. The Federal Circuit has made clear that disclaimers of claim scope during prosecution will only arise when the disclaimer is "both clear and unmistakable." *3M Innovation*, 2013 WL 3984988, at *8. Moreover, the ALJ must resolve ambiguities in the prosecution history in favor of the patentee. *Id.* at *15.

As FlashPoint explains, the two statements regarding the Zaurus reference are susceptible to narrower readings than Respondents put forward. With respect to the character correction discussion on page 6186 of the reexamination file history, FlashPoint is correct that the discussion does not disclaim all alternatives, but can be interpreted more narrowly. A fair reading of the character correction argument is that Zaurus did not present a "series of interactive instructions" because each incorrect character had to be selected separately, the alternatives for correction were presented to the user in response to the selected incorrect character, and after the user made the selection there was no indication in the Zaurus reference that any further instructions were presented to the user. (*See* JX-0012.06186.) FlashPoint argued that this was not a "series of interactive instructions" even though the user could select one character after another because even though there were multiple instructions there was no disclosure of updating the instructions after the selection. Thus, the disclaimer is not that alternatives can never be within the scope of the claims, but that if alternatives are presented and the user selects an option and no further updates are made to the instructions, then that is not a "series of interactive instructions." However, while FlashPoint is correct that there is not a broad disclaimer, Respondents are certainly correct that FlashPoint did argue that an instruction provided in response to a user's selection that provides no further instructions is not a series even if the user makes (or could make) a series of independent selections. Thus, the fair reading of this statement is that the claims of the '190 Patent require that once an instruction is provided and a selection is made, a subsequent updated instruction must be provided. The ALJ believes that this is captured in the claim language already, so no modification of the construction is necessary.

As for the discussion of the form feature of the Zaurus reference found on page 6186 of the reexamination file history, the ALJ agrees with FlashPoint that it did not disclaim any and all forms, but that it did explain that simply presenting a form with blanks to a user for them to fill in data does not constitute an interactive instruction. FlashPoint makes factual arguments related arguing that a form with a "flashing cursor" to "guide" the user through the form as being an example of a form that was not disclaimed. The ALJ declines to accept that factual argument that a "flashing cursor" is an interactive instruction. The ALJ finds it sufficient to say that FlashPoint is correct that the only clear and unmistakable disclaimer in the discussion of the form embodiment is that when a form is presented to the user with multiple fields that form alone is not an interactive instruction. Thus, the ALJ declines to read in the limitation that Respondents seek that any form or presentation of alternatives can never be within the scope of the claims, which they seem to contend. However, the ALJ declines FlashPoint's invitation to hold that certain things are interactive instructions. Those are factual questions that must be resolved in the context of the accused devices.

3. "formatted document"

FlashPoint	a document including text, images, and instruction on how to assemble the image and text for display that is readily interchangeable among users using a variety of computer implemented methods
Respondents	a file containing image(s), text, and additional information that dictates how the image(s) and text will appear on a display

The parties agree that a "formatted document" includes text, images, and instructions on how to assemble the image and text for display. (CIB at 83; RIB at 84.)) The principal differences between the constructions are: (1) FlashPoint seeks to include the requirement that the "formatted document" be readily interchangeable among users using a variety of computer implemented methods; (2) whether the "formatted document" is a file that exists outside of the process and device that generates it; and (3) whether the appearance of the "formatted document when displayed is defined upon generation. (CIB at 83; RIB at 85.)

FlashPoint argues that it has shown that the "formatted document" as described in the specification is one that is readily interchangeable among users. (CIB at 83.) FlashPoint asserts that the specification of the '190 Patent states that "[t]he present invention provides an inexpensive method and system for capturing images and generating a formatted electronic document which includes or references those images. The document is readily interchangeable among users using a variety of computer implemented methods...." (CIB at 83.) FlashPoint argues that it is improper to limit the "formatted document" to a file. (CRB at 42.) FlashPoint relies on claim differentiation noting that several of the dependent claims (claims 18 and 45) specifically claim that the "formatted document" is a type of file. (CRB at 42.) FlashPoint also disputes Respondents' requirement that the "formatted document" have a "defined appearance." (CRB at 41.) FlashPoint contends that the specification only requires that the "formatted document" have a "desired appearance" not a "defined" one. (CRB at 41.) FlashPoint argues that "whether or not a recipient of the formatted document opts to follow each such included instruction is wholly irrelevant in that the asserted independent claim does not include any such requirement." (CRB at 42.) FlashPoint asserts that claim 13 only requires generating a formatted document, not displaying it. (CRB at 42.) FlashPoint also relies on claim differentiation based on dependent claim 24 and contends that claim 24 requires that "the formatted document . . . when accessed and interpreted in light of the predefined model, causes a document to be displayed that includes the text and the at least one image in a desired format." (CRB at 42.)

Respondents argue that the "formatted document" must be file that can be edited to store text and images. (RIB at 85.) Respondents contend that "consistent with this ordinary meaning, the '190 Patent describes the formatted document as a file, with an enduring existence outside the process and device that generate it. (RIB at 85.) Respondents also argue that during the reexamination, FlashPoint repeatedly argued that the "formatted document" is "ready for sharing." (RIB at 86.) Respondents contend that for a "formatted document" to be "ready for sharing," it must have a "defined appearance." (RIB at 86.) Respondents argue that the whole point of using a "predefined model" is to predefine the appearance of the formatted document. Respondents contend that "to have a 'formatted document' with [an] undefined appearance is not only contrary to the very notion of a 'formatted' document, but also inconsistent with the objective of the '190 Patent." (RIB at 86.)

The ALJ finds that neither construction is correct. First, the ALJ agrees with FlashPoint that there is no requirement that the claims be limited to a "file." The ALJ agrees that the plain meaning of the term document could be broader than the term "file." Moreover, FlashPoint is correct that dependent claim 18 claims an "internet page description file." This suggests that a "document" is broader than a "file." While the ALJ agrees with Respondents that all of the examples and discussion in the specification relates to "formatted documents" as files, that alone is insufficient to limit the claims. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (collecting cases) ("Even 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 expression of manifest exclusion or restriction." (quotation marks omitted)). The principle evidence that Respondents rely on to impose this limitation is expert testimony. In the absence of any intrinsic evidence to support such a construction, the ALJ declines to rely on extrinsic evidence to impose this limitation. In the end, Respondents' arguments and expert testimony would be more persuasive if directed to whether or not the claims are enabled if "formatted document" includes non-file documents (whatever those are, because FlashPoint provides no guidance as to the scope of this term). *See Bayer Cropscience AG v. Dow Agrosciences LLC*, --- F.3d ---, 2013 WL 4712725, at *6-*7 (Fed. Cir. Sept. 3, 2013) (considering potential enablement problems in construing claims where "record regarding such problems was extensively developed"); *see also Liebel-Flarsheim v. Medrad, Inc.*, 481 F.3d 1371, 1378-80 (Fed. Cir. 2007) (finding no enablement after giving claims broad reading). But Respondents do not raise that argument in their brief.

Second, the ALJ does not understand the purpose of FlashPoint's effort to include the "readily interchangeable" limitation into the claims. However, to the extent it does not appear to be opposed by Respondents and is supported by the specification, the ALJ will allow it. (*See, e.g.*, JX-0010 at 2:61-65 ("The document is readily interchangeable among users using a variety of computer implemented methods, such as, for example, email, LAN/WANs, or the Internet."); *see also* 4:36-39; 7:12-15; 14:59-61.)

Finally, the parties dispute whether the "formatted document must have a "defined appearance." FlashPoint goes so far as to assert that "whether or not a recipient of the formatted document opts to follow each such included instruction is wholly irrelevant [to claim 13]." (CRB at 42.) The ALJ agrees with FlashPoint that nothing requires that the "formatted document" have a "defined appearance." However, Respondents are correct that the document must contain commands that define its appearance. So, FlashPoint is not correct that the commands are irrelevant. If the recipient ignored them, then that would not necessarily violate the claim, but if the document did not contain them, then it would. So, there is no reason to incorporate Respondents' limitation into the claim. Thus, the ALJ finds that a modified construction best reflects the plain meaning of the claim. Accordingly, the ALJ construes the term "formatted document" to mean: "a document including text, images, and instructions on the appearance of the image and text for display that is readily interchangeable among users using a variety of computer implemented methods."

4. "predefined model"

FlashPoint	a set of commands that determine the appearance of the formatted document
Respondents	a pre-existing set of commands that control the formatting of a document as it is being automatically generated, thereby providing a 'blue print' for the appearance of the document when displayed

FlashPoint argues that its construction is supported by the intrinsic evidence while Respondents' construction seeks to read a number of limitations into the claim. FlashPoint asserts that Respondents' construction "require that the predefined model be indefinitely fixed." (CIB at 85.) FlashPoint contends that "'predefined,' as it is used in the specification means that at the time the user goes to generate a formatted document, the model has been defined." (CIB at 85-86.) FlashPoint asserts that "[t]o the extent [Respondents] intend[] 'fixed/pre-existing set of commands' to mean that the model is always fixed and never changed, such a construction is not supported by the specification." (CIB at 86.) FlashPoint also contends that Respondents' "automatically generated" limitation is incorrect because "one of ordinary skill in the art would understand that the instructions relating to formatting control how to assemble the images and text when the formatted document is being displayed." (CIB at 86.) FlashPoint argues that "[a]lthough the 'formatted document' is created as the user follows the interactive instructions, the document is not in its formatted form until it is displayed." (CIB at 86.) FlashPoint also asserts that its construction "inherently requir[es] that the model exist prior to the formatted document being generated." (CRB at 43.) FlashPoint further asserts that "[t]he 'predefined model' refers to the program instructions which generate the formatting instructions that accompany the 'formatted document,' and not the formatting instructions themselves." (CRB at 43.)

Respondents argue that FlashPoint's construction fails to give meaning to the word "predefined." (RIB at 86-87.) Respondents assert that "predefined" means that the model must exist before the formatted document is generated. (RIB at 87.) Respondents note that FlashPoint's expert conceded that the model must have been defined at the time the user goes to generate a formatted document. (RIB at 87 (quoting CX-614.1C at Q/A 963.) Respondents contend that this is reflected in their construction, which requires a "pre-existing set of commands" and makes clear that the "predefined model" serves as a "blueprint" for controlling the formatting of the document generated. (RIB at 87.) Thus, Respondents assert "the pre-defined model must exist before the formatted document is created so that it can control how the document is formatted as it is created." (RIB at 87.) Respondents point to extensive discussion in the intrinsic record that they assert supports their construction. (RIB at 87-88.) Respondents argue that "FlashPoint's construction, which does not require a 'pre-existing' set of commands that controls formatting of the document 'as it is being automatically generated' invites mischief." (RIB at 88.) Respondents contend that the '190 Patent distinguishes between the "predefined model" and formatting commands that accompany the formatted document, which are generated as a result of using the predefined model. (RIB at 88.) Respondents argue that FlashPoint conflates the "predefined model" with formatting commands that accompany the formatted document. (RIB at 88.) Respondents assert that "[s]uch formatting commands are not the 'predefined model' and could have been generated with the use of a 'predefined model'—as they are in the '190 Patent—or without any predefined model." (RIB at 88.) Respondents contend that the "predefined model" is the blueprint that determines which formatting commands will accompany the document, but the "predefined model" itself does not accompany the document. (RIB at 88.)

Respondents further note that FlashPoint concedes that "predefined" means "that at the time the user goes to generate the formatted document, the model has been defined." (RRB at 32 (quoting CIB at 85-86).) However, Respondents argue that "FlashPoint's actual construction omits this requirement." (RRB at 32.) Respondents reject FlashPoint's argument that they require that the "predefined model be indefinitely fixed" because "[n]othing in Respondents' construction requires the set of commands used to control the formatting or a document to be fixed indefinitely." (RRB at 32-33.) Respondents assert that "[r]ather, such a set of commands must merely pre-exist the generation of the document." (RRB at 33.) As for the "as it is being automatically generated" requirement, Respondents argue that this is consistent with how the term was used by both FlashPoint and the examiner during the reexamination and should be adopted. (RRB at 33.)

The ALJ largely agrees with Respondents' construction. Beginning with claim language, FlashPoint's construction completely ignores both the words "predefined" and "model." For example, HTML is a set of commands that defines the appearance of a document, but it defies common usage to call the HTML language as a whole a "predefined model." Rather, the common meaning of words a "predefined model" requires something more; it requires a pre-existing way of arranging those commands. Thus, the claim term itself suggests substantial problems with FlashPoint's construction and supports Respondents' construction.

The strongest support for Respondents' construction comes from FlashPoint's statements during the reexamination (this also summarizes the key portions of the specification dealing with this term). During the reexamination, FlashPoint stated that:

> ***The predefined model is effectively a set of commands that control the formatting of the document as it is being generated.*** The predefined model is defined as follows in the specification at column 7, lines 34-39, as follows:
>
> > ***The predefined set of commands which determine the formatted appearance of a web page [i.e., formatted document] are referred to as a model.*** The model is designed (e.g., by the user, a third party developer, or the like) to give the resulting web page its distinctive appearance.
>
> The predefined model is more than simply the resulting formatting. ***The predefined model is a set of commands that cause the formatted document to be generated with the desired formatting.*** The following example provided in the specification beginning at column 7, line 65 is illustrative of the nature and use of the predefined model:
>
> > The model functions as a "blue print" which describes the appearance and logical structure of the resulting web page described by the HTML file. As the images are captured and text information entered, the images and text are tagged with HTML commands in accordance with the model.
> >
> > In executing a script in accordance with the present invention, camera 110 generates an HTML file including the resulting images, wherein the HTML file is formatted in accordance with the script's predefined model. The model defines the formatting and positioning information which determine the overall appearance of the web page. For example, with a directed image capture script, as the directed image capture sequence "steps" the user through a series of image captures, the script automatically formats the descriptive information or annotations entered by the user in accordance with the model so that they appear in a desired manner in with respect to the corresponding picture (for example, specifying that the title of the image be centered above the picture and in a relatively large font, while the annotations are justified below the picture in a smaller font). Thus, once the user has

> progressed though and completed a given directed image capture sequence, camera 110 has generated the corresponding formatted HTML file.
>
> ***Clearly the predefined model is more than the resulting formatting of a preloaded and preformatted document, and is instead a set of commands that controls the formatting of the document as it is being generated***. A further example is provided beginning at column 10, line 29. ***A review of the specification for the Present Patent reveals a consistent use of the predefined model to aid the automatic generation of a formatted document.***

(JX-0012.06132-6133 (emphasis added).)

The examiner adopted this interpretation later in the reexamination in his allowance of the claims stating: "The term 'predefined model' is defined (7:34-39) as a set of commands that control the formatting of the documents as the document is being generated." (JX-0012 at 16913.)

The ALJ considers these unqualified statements during the prosecution to be exceptionally clear and guide the construction of this term. *See Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1266-67 (Fed. Cir. 2012). FlashPoint unequivocally argued to the USPTO that the "predefined model" as described in the '190 Patent must be (a) "a set of commands that control the formatting of the document as it is being generated;" (b) "predefined;" (c) "determine the appearance of the formatted document;" and (d) "aid the automatic generation of a formatted document." FlashPoint concedes many of these points in its reply brief (*see* CRB at 43), but none of them are reflected in its construction of the term. They are, however, largely reflected in Respondents' construction.

FlashPoint's only real complaints about Respondents' construction are that (1) "[t]o the extent [Respondents] intend[] 'fixed/pre-existing set of commands' to mean that the model is always fixed and never changed, such a construction is not supported by the specification[]" (CIB at 86); and (2) Respondents' "automatically generated" limitation is incorrect because "one of ordinary skill in the art would understand that the instructions relating to formatting control how to assemble the images and text when the formatted document is being displayed[]" (CIB at 86). Neither of these complaints has any merit. First, there is nothing in Respondents' construction that requires that the model be "always fixed and never changed." In any event, Respondents have disavowed such a contention and agree that the "predefined model" only need "pre-exist the generation of the document." (RRB at 33.) The ALJ notes that section of the specification referred to by FlashPoint in the reexamination as offering a "definition" refers to a "predefined set of commands" (JX-0011 at 7:33). The ALJ believes using "predefined" in the construction is somewhat circular and, given that Respondents answered FlashPoint's concerns to the word "pre-existing" and FlashPoint has largely conceded to Respondents' contentions regarding this term, the ALJ will use the term "pre-existing."

Second, the ALJ finds that the "automatically" portion of the definition is not completely correct. FlashPoint stated during the prosecution that the "predefined model" does "control the formatting of the document as it is being generated," but it did not say "automatically generated." FlashPoint did argue, however, that the "predefined model" does "aid the automatic generation of a formatted document." Thus, the ALJ believes to be more consistent with FlashPoint's actual assertions during prosecution to remove "automatically" from before generated but to add that the "predefined model" does "aid the automatic generation of the formatted document."

The ALJ further finds that it is not necessary to include the term "blue print" in the definition. While that was mentioned in the specification and prosecution history, it was never offered as definition of the term or explicitly conceded by FlashPoint as with the other points. Moreover, the ALJ finds that the remainder of the construction is clear without including the term "blue print." The ALJ does not believe that this term adds anything to the construction and serves to inject ambiguity into the construction. The ALJ does find that it is clearer to adopt the language from Col. 7, lines 33-39, that FlashPoint referred to as a "definition" of the term that the predefined model "determines the appearance of the [formatted document]." The ALJ does not believe this alters Respondents' construction in any material way, but simply makes it clearer. Accordingly, the ALJ construes the term "predefined model" to mean a "pre-existing set of commands that aid the automatic generation of the document and control the formatting of a document as it is being generated, thereby determining the appearance of the formatted document." The ALJ finds that this construction best comports with the intrinsic evidence, particularly the discussion in the reexamination discussed above and the discussions in the specification regarding this term. (JX-0010 at 7:65-8:1, 3:9-25, 11:9-13, 7:34-39, 10:36-38, 12:16-18.)

5. "program instructions"

FlashPoint	Plain and Ordinary Meaning
Respondents	Plain and Ordinary Meaning, i.e., a script

Respondents argue that the plain and ordinary meaning of this term is limited to a "script" and excludes compiled computer code relying on technical dictionary definitions for this term. (RIB at 99.) Respondents further note that every embodiment of the '190 Patent uses a script. (RIB at 99.) Respondents also argue that the language in the specification that indicates drivers, the kernel, and startup instructions comprise program instructions does not require a broader construction. (RRB at 34.) Respondents assert that this language "merely describes the functionality of the drivers, kernel, and startup/configuration without specifying the manner in which the program instructions (*i.e.*, source programs) for these modules are translated into machine code (*e.g.*, through interpretation or compilation) or the time of such translation (*e.g.*, prior to operation or during operation)." Respondents contend that "even if FlashPoint is correct that digital imaging devices store drivers, kernels, and starup/configuration as compiled code—a proposition for which it has provided no evidence—neither the extrinsic nor intrinsic evidence supports construing 'program instructions' as compiled code." (RRB at 34.)

FlashPoint argues that the intrinsic evidence makes clear that "program instructions" includes non-script programming languages. (CIB at 87.) FlashPoint asserts that the original claims for the '190 Patent recited "a script" and that the applicants amended these claims to recite "program instructions" stating that "[c]laims 1 and 14 have been also amended to cancel references to 'a script' in order to claim other types of programs." (CIB at 87.) FlashPoint also notes that claim differentiation also supports its construction. FlashPoint argues that dependant claim 8 recites "allowing a user to load a script onto the digital imaging device." (CIB at 87.) In addition, claim 15, which depends from claim 13, recites "wherein step a) further includes the step of providing the program instructions as a text-based script." (CRB at 49.) Moreover, certain claims of the '190 Patent use the term "script" explicitly, which further demonstrates that "program instructions" is not limited to a script. (CIB at 87.)

The ALJ agrees with FlashPoint that the plain and ordinary meaning of "program instructions" is not limited to "scripts" as Respondents contend although the ALJ believes it is a close case. Beginning with the intrinsic evidence, the claim language suggests a broader construction for "program instructions." For example, claim 8 recites "allowing a user to load a script onto the hand-held digital camera, the script comprising a set of program instructions[.]" (JX-0010 at 15:54-60.) This language suggests that "scripts" are narrower than "program instructions." *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360-61 (Fed. Cir. 2008) (claim differentiation can inform claim construction). In addition, claim 15, which depends on claim 13, recites "wherein step a) further includes the step of providing the program instructions as a text-based script, and wherein the hand-held digital imaging device guides the user through the sequence of interactive instructions by a computer system interpreting the text-based script." This language also suggests that the term "program instructions" is broader than "scripts." The specification also supports a broader construction. For example, the specification uses "program instructions" broadly when it states that: "Non-volatile memory 350, which may typically comprise a conventional read-only memory or flash memory, stores a set of computer-readable program instructions to control the operation of camera 110." (JX-0010 at 5:45-48.) In addition, the specification states that:

> Drivers 612 comprise program instructions for controlling various camera 110 hardware components, such as motor 234 (FIG. 2) and a flash (not shown). Kernel 614 comprises program instructions providing basic underlying camera operating system services including synchronization routines, task creation, activation and deactivation routines, resource management routines, etc. Startup/configuration 616 comprises program instructions for providing initial camera 110 start-up routines such as the system boot routine and system diagnostics. When the camera 110 is first turned on and booted up, the startup/configuration 616 module begins to execute and loads the drivers 612, the kernel 614, the control application 602, and system files containing configuration information into DRAM 346. Thereafter, operation of the camera is passed to the control application 602. In an alternative embodiment, the software 600 may executed out of ROM 350 in order to reduce the size of DRAM 346.
>
> The script for directed image capture sequence 618 may be loaded into the digital camera 110 from the removable memory 354 (FIG. 3), a host computer, or a network, and stored in DRAM 346 to run in place of the control application 602. Once loaded into the camera, the script may be selected by the user from a menu where it is displayed for selection, and is thereafter executed by the control application 602 by passing the script to the script interpreter 610. The script interpreter 610 then translates and executes the script instructions comprising the directed image capture sequence 618 one-by-one.

(JX-0010 at 9:65-10:28.)

Thus, this language from the specification appears to indicate that the patentee intends to use "program instructions" broadly to include both scripts and compiled software such as drivers and kernel. Finally, the prosecution history also provides evidence that supports the broader construction. During prosecution, original independent claims 1 and 14 were amended to cancel references to "script" and replaced with "program instructions." (JX-0011.00248.) The applicants explained that the amendment was "in order to claim other types of programs." (JX-0011.00248.) Thus, the intrinsic evidence taken together suggests that the patentee intended to use "program instructions" to encompass both scripts and compiled code.

The only really arguments that Respondents offer are that all of the embodiments use scripts for the interactive instructions and a dictionary definition. However, the fact that all of the embodiments use scripts is not, by itself, very persuasive. *See Liebel-Flarsheim Co.*, 358 F.3d at 906 ("Even 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 expression of manifest exclusion or restriction." (quotation marks omitted)). As for the dictionary definitions, the ALJ finds that this extrinsic evidence is not persuasive given the way the term is used in the specification. *See Phillips*, 415 F.3d at 1321. The ALJ does admit that the dictionary definition does suggest a narrower construction and that the specification and prosecution history (the reexamination in particular) does almost exclusively deal with the use of scripts. Moreover, the ALJ further agrees that the language discussing program instructions and the kernel and drivers is not entirely clear as to what exactly it is referring. However, given that the specification suggests non-script embodiments, the dependent claims suggest a broader definition, and the use of "program instructions" in the specification can be read to be consistent with a broader construction, the ALJ declines to read the claims restrictively. Accordingly, the ALJ gives the term "program instructions" its plain and ordinary meaning and finds that it is not limited to scripts as Respondents contend.

6. "automatically updating the interactive instructions"

FlashPoint	(no construction)
Respondents	displaying new, different instructions without additional action by user

FlashPoint offers no construction or argument regarding this term and its expert merely testifies that the claim term should be given its ordinary meaning. (CX-614C at Q/A 918.) Respondents argue that their construction is consistent with the plain and ordinary meaning of this claim term. (RIB at 83.) Respondents also contend that their construction is consistent with FlashPoint's statements during the reexamination which distinguished choosing an option to enter a greeting or signature, where the user was then free to choose another option, from "automatically updating the interactive instructions." (RIB at 83.)

Respondents' argument focuses on statements made by FlashPoint during the reexamination where FlashPoint distinguished a prior art reference (the Zaurus reference) stating:

> Zaurus simply discloses an option to automatically add a greeting or signature to the body of an email message. In operation, a user would select the option 'automatic text addition,' enter the greeting or signature and indicate whether to add the additional message before or after the body of the email message. On page 61, the pertinent portion of Zaurus reads as follows:
>
> > With color Zaurus's Internet mail, you can automatically add text such as your address or a greeting before or after your message. By selecting "automatic text addition," you can add your additional message and select whether you want to add it before or after the main message.
>
> There is no indication that an instruction to select the placement of the additional text is automatically provided in response to the user performing an operation that was prompted by a prior instruction.

(RIB at 83.) Respondents further point to a statement by the Examiner that he accordingly understood "automatically updating the interactive instructions" to mean that "a new instruction is provided in response to a user performing an operation that was prompted by a previous instruction." (RIB at 83.).

The ALJ agrees with Respondents that a construction is necessary for this term. However, the ALJ does not completely agree with Respondents' construction. In particular, Respondents provide no support or explanation for their addition of the word "different" to their construction. The ALJ is not certain what precisely is mean by "different." The ALJ believes that the definition agreed to by the examiner and FlashPoint during the reexamination best captures the plain and ordinary meaning of this term. Accordingly, the ALJ construes the term to mean "a new instruction is provided in response to a user performing an operation that was prompted by a previous instruction."

7. "capture information from the user"

FlashPoint	(no construction)
Respondents	record knowledge or intelligence input by the user

FlashPoint offers no construction or argument regarding this term and its expert merely testified that it should be given its ordinary meaning. (CX-614C at Q/A 971-72.) Respondents argue that their proposed construction is consistent with the ordinary meaning of the term and is supported by FlashPoint's statements during the reexamination. (RIB at 84.) Respondents contend that during the reexamination FlashPoint argued to the Patent Office that "'capturing information from the user,' as used in the claims, connotes the extraction of knowledge or intelligence from the user, not simply receiving control input, such as selecting an image from a group of images." (RIB at 84 (quoting JX-0013.3820.) Respondents assert that FlashPoint continued stating: "Taken in content, the phrase 'capturing information from the user' clearly and literally means the act of recording knowledge or intelligence from the user." (RIB at 84 (quoting JX-0013.3820-21).) Respondents argue that their construction reflects FlashPoint's own characterization of the claim language during the reexamination. (RIB at 84.)

The ALJ agrees with Respondents. During the reexamination, FlashPoint sought to overcome a rejection by the Patent Office that claim 13 (among others) were anticipated by a reference. In its arguments for patentability, FlashPoint explicitly defined the "capture information from the user" limitation as follows:

> "Capturing information from the user," as used in the claims, connotes the extraction of knowledge or intelligence from the user, not simply receiving control input, such as selecting an image from a group of images. Taken in context, the phrase "capturing information from the user" clearly and literally means the act of recording knowledge or intelligence from the user. Throughout the specification, the ['190 Patent] consistently discusses the concept of capturing from the user descriptive information or annotations, generally in the form of text, to associate with an image…

(JX-0013.3820-3821.) A patentee's statements during prosecution can limit the scope of the claims. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004). The ALJ cannot image a much clearer statement in a prosecution history as to what the patentee believes the meaning of a claim term is. Moreover, the ALJ agrees with FlashPoint's statement to the examiner that this definition is consistent with how the term is used in the specification of the '190 Patent. Thus, the ALJ will hold FlashPoint to its statements to the Patent Office and construe the claim term "capture information from the user" to mean "record knowledge or intelligence input by the user."

D. The '538 Patent

1. Level of Skill in the Art

The parties definitions of the level of skill in the art differ, but they agree that those differences are not substantial. (*See* CIB at 131; RRB at 63.) FlashPoint argues that a person of ordinary skill at the time of the invention would have had a bachelor's degree in electrical engineering, computer engineering, or software engineering and a year of relevant experience in software development for digital imaging devices. (CIB at 131.) Respondents argue that a person of ordinary skill in the art would have a bachelor's degree in computer or electrical engineering and 3-5 years of experience in computer software and hardware systems design or an equivalent amount of education and experience. (RIB at 159 (citing RX-2174C at Q/A 7).)

The ALJ does not find that there is any significant difference between these two definitions. The sole difference is in the amount of work experience, but, as with the '471 Patent, the differences wash out because one definition requires less time but in a more specific field while the other definition requires more time in a much less specific field. Accordingly, the ALJ finds that a person of ordinary skill in the art at the time of the invention would have had a bachelor's degree in electrical or computer engineering or a related field, and either one year of relevant experience in software development for digital imaging devices or 3-5 years of experience in computer software and hardware systems design.

2. "digital camera"

FlashPoint	No construction necessary or "an electronic device, other than a personal computer, capable of capturing a digital image"
Respondents	"an electronic device, different from a personal computer, dedicated to capturing digital images using an image sensor"

Respondents seek a construction of digital camera that basically would limit "digital camera" to a device that is a "digital camera" and nothing else. FlashPoint argues that no construction is necessary or in the alternative, if a construction is deemed necessary, the ALJ should adopt one that excludes personal computers. Respondents argue that the specification "makes it clear that a digital camera is a type of a digital imaging device, yet is different from other types of digital imaging devices." (RIB at 140.) Respondents further contend that the '538 Patent "explains that a 'digital camera' is a 'camera,' and thus is dedicated to capturing digital images using an image sensor." (RIB at 140 (emphasis in original).) Respondents assert that the prosecution history confirms this because the claims originally recited a "digital imaging device" and the claims were amended to recite a "digital camera." (RIB at 140.) Respondents argue that FlashPoint repeatedly surrendered scope and limited the claims to "digital cameras." (RIB at 140-141.)

FlashPoint argues that Respondents' narrow construction should be rejected. FlashPoint asserts that its statements during the prosecution history make clear that the only distinction it drew during prosecution was that of portability. FlashPoint further argues that the original term "digital imaging device" includes a broad range of equipment, such as fax machines and bar code scanners.

The ALJ finds that this term should be simply given its plain and ordinary meaning. The ALJ rejects Respondents' contention that the term "digital camera" must be limited to a device that is dedicated to capturing images for several reasons. First, the ALJ perceives nothing in the plain and ordinary meaning of the term "digital camera" that requires that it be "dedicated" to capturing images. A digital camera certainly has that functionality, but nothing in the plain and ordinary meaning of the term that prevents a digital camera from having other functionality. Second, the ALJ discerns nothing in the claims and Respondents point to nothing that prevents the digital camera from having other functionality. Third, the specification only states that:

> Most digital cameras today are similar in size to and behave like conventional point-and-shoot cameras. Unlike conventional cameras, however, most digital cameras store digital images in an internal flash memory or on external memory cards, and some are equipped with a liquid-crystal display (LCD) screen on the back of the camera. Through the use of the LCD, most digital cameras operate in two modes, record and play, although some only have a record mode.

(JX-0006 at 1:21-30.) Nothing in this language indicates that the digital camera must be "dedicated" to capturing images.

Finally, the prosecution history does not evidence the clear and unmistakable intent to require "digital camera" be limited to only devices "dedicated" to capturing images. The claims as originally filed claimed a method for controlling user interaction in a "digital imaging device." (JX-0007.00035.) The claims were rejected in light of a combination Parulski patent (EP 661,658) and the Ogawa Patent (U.S. Patent No. 5,198,851). Parulski was directed to a system and method for creating personalized video games by having a camera system connected to personal computer that would record images and integrate them into a video game. (JX-0007.00147-152; JX-0007.00188-189.) Ogawa was directed to a camera that could operate with digital scripts. (JX-0007.148; JX-0007.00189.) In response to this rejection, the applicant amended the claims to replace "digital imaging device" with "digital camera." (JX-0007.00185.) The applicant stated that this amendment was "to make clear that the device is portable." (JX-0007.00188.) The claims were also amended to make clear "that the script is stored and run within the digital camera." (*Id.*) Specifically, the applicant argued that "[n]either Parulski or Ogawa teach a system in which scripts are stored and executed within a portable device, such as a digital camera recited in the amended claims." (JX-0007.0189.) The applicant repeatedly emphasized that it failed to teach a portable system. (JX-0007.0189.) The applicant distinguished Ogawa because the instructions were not run on the camera, but instead in a portable computer that had to be attached to the camera. (JX-0007.0189.) The claims were rejected again by the examiner as obvious in light of the combination of Parluski and Ogawa. (JX-0007.199-210.) The examiner agreed that portability was a "salient" feature of the invention, but argued that applicant failed to claim a "portable digital camera." (JX-0007.00207.) In response to this second rejection, the applicant again amended the claims. (JX-0007.00215.) The second amendment specified that the "digital camera" was "handheld" and that the display was "integrated" into the digital camera. (*Id.*) In his remarks, the applicant explained that "Parulski teaches executing programs on a PC, and Ogawa teaches executing programs on a terminal device." (JX-0007.00221.) Also, the applicant argued that "Parulski's system requires a PC display, and Ogawa's terminal device houses the display, rather than the camera." (*Id.*) While there was one final amendment, it did not relate to the "digital camera" limitation and the claims were allowed. Thus, it is clear that in the original prosecution, the amendments were all directed to three aspects of the device—portability, the ability to run and store the scripts on the device, and having the display as an integral part of the device. None of these aspects relate to the device being "dedicated" to capturing digital images or in any way suggest that the claims are limited to a digital camera "dedicated" to capturing images.

As for the reexamination, Respondents mischaracterize the record. During the reexamination, FlashPoint argued that a number of prior art references could not be combined with a hand-held digital camera reference because they were not analogous prior art. (JX-0008.04036-04040.) FlashPoint referred to a declaration by the named inventor, Mr. Anderson, that explained that at the time of the invention, hand-held digital cameras were not in the same field of endeavor as PCs, video-based systems, or medical imaging technology. (JX-0008.04037.) FlashPoint explained that:

> PC-based systems were considered irrelevant to digital camera developers in the late 1990s because of the great discrepancy in processing and display capabilities between the early digital cameras and PCs of the period. The digital camera were hindered by limited processing and display capabilities, while PCs had evolved to include relatively limitless power and were associated with increasingly larger displays, or even multiple displays. . . . Given the disparity in processing power and displays, PC-based systems were not considered to be in the same field of endeavor as the hand-held digital camera developer; and PC technology would not have commended itself to a hand-held digital camera developer.

(JX-0008.04038 (footnotes omitted).) Thus, the discussion Respondents attempt to rely on does not evidence an intent to disavow claim scope or limit the term "digital camera" to devices that only capture images. It simply argues that, at the time of the invention, digital cameras had limited abilities and various types of art would not have been analogous to a skilled artisan in the field of the invention. The ALJ does not find any intent to disclaim claim scope in the discussions cited by Respondents. Accordingly, the ALJ declines to limit the claims to devices that are "dedicated" to capturing digital images. *See 3M Innovative Prop. Co. v. Tredegar Corp.*, --- F.3d ----, 2013 WL 3984988, at *8 (Fed. Cir. Aug. 6, 2013) ("[I]n order for prosecution history disclaimer to attach, the disavowal must be clear and unmistakable."); *see also Lazare Kaplan Int'l, Inc. v. Photoscribe Tech., Inc.*, 628 F.3d 1359, 1370 (Fed. Cir. 2010); *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003).

As for the other limitations that Respondents propose, they provide no evidence or argument to support them. Thus, the ALJ declines to adopt them. As for FlashPoint's proposed construction, the ALJ finds that it does not add anything to the plain and ordinary meaning of the claim term. Accordingly, the ALJ adopts the plain and ordinary meaning of digital camera.

3. "directed image capture sequence"

FlashPoint	"instructions, which, when executed, guide a user through a series of image captures"
Respondents	"program instructions that guide the user to take and store a plurality of related and retrievable pictures"

FlashPoint bases its construction on the statement in the specification that "a directed image capture is a camera feature that provides the user with interactive instructions and feedback during capture mode to guide the user through a series of task-oriented image captures." (CIB at 135.) FlashPoint argues that its construction is also consistent with the plain meaning of the terms. (CIB at 135.) FlashPoint points to two main disputes between the parties. First, FlashPoint disputes Respondents' requirement that the pictures taken be "retrievable." (CIB at 136.) FlashPoint asserts that the intrinsic evidence does not require that the "image capture[s]" be retrievable and Respondents only support for this limitation is their expert's opinion. (CIB at 136.) Second, FlashPoint disputes Respondents' requirement that the instructions be "program instructions," which Respondents argue is limited to "human-readable," non-compiled code. (CIB at 136.) FlashPoint argues that neither party identified "program instructions" for construction and, in any event, Respondents' construction is improper. (CIB at 136.) FlashPoint contends that Respondents' construction of "program instructions" improperly limits the term to "scripts." (CIB at 136-137.) FlashPoint argues that such a construction would improperly limit the claims to the preferred embodiment and would be inconsistent with the dependent claims. (CIB at 137.) FlashPoint also argues that such a construction would be inconsistent with the specification that uses "program instructions" broadly. (CRB at 59-60.) FlashPoint also argues that the claims should not be limited to taking pictures of specific subjects because that would improperly read limitations into the claims. (CRB at 60.)

Respondents argue that their construction is most consistent with the claim language and intrinsic evidence. (RIB at 142-144.) First, Respondents contend that "program instructions" is term with a particular meaning in the art. (RIB at 143.) Respondents assert that plain meaning, as evidenced by various technical dictionaries, is "a computer instruction in a source program," which means non-compiled code, such as scripts. (RIB at 143.) Respondents argue that the intrinsic evidence supports this construction because the specification repeatedly refers to scripts. (RIB at 143.) Respondents also argue that FlashPoint limited the claims to scripts during the reexamination. (RIB at 143.) Second, Respondents contend that the '538 Patent is directed to using the "directed image capture sequence" for capturing images that are stored and retrieved for display on the LCD. (RIB at 143.) Otherwise, Respondents assert that the digital camera would be "pointless." (RIB at 144.) Respondents argue that the plain meaning of the word "sequence" implies multiple image captures. (RIB at 144.)

The ALJ rejects Respondents' construction. Beginning with the claim language, Respondents seek to read several limitations into the definition of "directed image capture sequence" that are already found in the claim. First, the claim already requires that the "directed image capture sequence compris[e] a set of program instructions…." (JX-0010 at 15:35-36.) Thus, Respondents' efforts to require that the "directed image capture sequence" be "program instructions" is redundant of the claim language. Second, the claim also already requires that the "interactive instructions . . . guid[e] the user through a series of related image captures…." Thus, there is no requirement in the term that the "directed image capture sequence" take multiple image captures; that is included elsewhere in the claim. As for the other limitations that Respondents seek to include in the term—that the "program instructions" are a script and the image captures be "retrievable," neither of those limitations finds support in the claim language. Indeed, the unasserted dependent claims indicate that the term "program instructions" is used broadly because claim 3 limits the "program instructions" to a "text-based script." (JX-0010 at 15:52-53.) In addition, claim 7 refers explicitly to "scripts" in place of "program instructions." (JX-0010 at 16:1-19.) As for the "retrievable" limitation, there is nothing in the claims that explicitly requires that the image captures necessarily be "retrievable." The use of the word "capture" certainly indicates that the images must be saved into memory, but there is no discussion about "retrieving." While the ALJ agrees that being able to retrieve the images that are captured is preferable, the ALJ does not see explicit support for reading such a limitation into this claim term. Thus, the ALJ finds that the claim language does not support Respondents' proposed construction.

As for the specification, the ALJ finds that the specification clearly explains what it means by "direct image capture" stating:

> Another use of displaying interactive instructions in the dynamic overlay bars 430 and 432 in accordance with the present invention is to direct the user through image capture sequences. The purpose of directed image capture sequences is to customize the camera's image capture process for a specific application. More specifically, ***a directed image capture is a camera feature that provides the user with interactive instructions and feedback during capture mode to guide the user through a series of task-oriented image captures.***

(JX-0010 at 9:15-24.) This is more consistent with FlashPoint's construction. There is no requirement that image captures be "retrievable" or that "program instructions" be limited to scripts. Indeed, the specification has no specific discussion of retrieving images or any requirement that images be retrievable. As for Respondents' efforts to limit the claims to scripts, the specification's discussion of "program instructions" is consistent with a broader reading of that term than Respondents' suggest. For example, the specification states that:

> Non-volatile memory 350, which may typically comprise a conventional read-only memory or flash memory, stores a set of computer-readable program instructions to control the operation of camera 110.

(JX-0010 at 5:6-10.) In particular, the specification describes "program instructions" as running a number of components that could not use "scripts" such as the kernel and drivers:

> Drivers 612 comprise program instructions for controlling various camera 110 hardware components, such as motor 234 (FIG. 2) and a flash (not shown). Kernel 614 comprises program instructions providing basic underlying camera operating system services including synchronization routines, task creation, activation and deactivation routines, resource management routines, etc. Startup/configuration 616 comprises program instructions for providing initial camera 110 start-up routines such as the system boot routine and system diagnostics…

(JX-10 at 10:21-30.) In addition, the specification explains that the use of scripts is a preferred embodiment. (*See* JX-0010 at 10:43-49 ("In a preferred embodiment, the directed image capture sequence 618 is implemented using a script, which is a program written with text-based commands that may be easily written by the user. As used herein, a script may be written in any interpreted language, such as Basic and Lisp, for example.").) This does not suggest that the patentee intended to limit the invention to scripts. On the contrary, the specification indicates that scripts are just one way to implement the claimed invention. For example, the specification states:

> In an alternative embodiment, a directed image capture sequence 618 may be implemented as a traditional application program, rather than a script. However, an application program is typically written by a software developer in a traditional computer language, such as C++, compiled, and stored in machine language, which is a more complicated process than adding new functions to the camera via a text-based interpreted script. (JX-0006 at 10:57-64.)

This statement clearly indicates that the patentee contemplated both script and non-script embodiments of the claimed invention.

The bulk of Respondents' citations to the specifications are to preferred embodiments of the invention. These do not limit the claims. *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008). Respondents also cite to the paragraph quoted in full above regarding alternative embodiments asserting that "[t]he specification distinguishes between compiled code and program instructions (such as scripts) and claims 'program instructions' in recognition of the flexibility of scripts." (RIB at 143.) This statement is a misrepresentation of what the specification says. This section of the specification does not discuss "program instructions" at all. It only discusses an alternative embodiment using C++, or another compiled language, and the preferred embodiment using scripts. This does not evidence any intent to limit "program instructions" to only scripts. *See Epistar Corp. v. Int'l Trade*

Comm'n, 566 F.3d 1321, 1335 (Fed. Cir. 2009) (holding that even a direct criticism of a particular technique did not rise to the level of clear disavowal). Indeed, it provides evidence that "program instructions" is broader than scripts and was used to indicate that the claims included both script and non-script embodiments. Thus, the ALJ finds that the specification strongly suggests that Respondents construction is incorrect.

Respondents only other piece of intrinsic evidence that they rely on is the prosecution history. During the prosecution, claim 1 (among others) was rejected as obvious in light of a combination of the Parulski patent and the Ogawa patent. (JX-0007.00188.) To overcome this rejection, the applicants made several arguments. Respondents rely on one these arguments. Specifically, Respondents rely on the statement by the applicants that "[n]either Parulski or Ogawa teach a system in which scripts are stored and executed within a portable device, such [as] the digital camera recited in the amended claims." (JX-0007.00189.) The ALJ finds that the mere reference to scripts in this sentence does not rise to the type of clear and unmistakable disavowal of claim scope that the Federal Circuit requires. *See 3M Innovative Prop. Co. v. Tredegar Corp.*, --- F.3d ----, 2013 WL 3984988, at *8 (Fed. Cir. Aug. 6, 2013) ("[I]n order for prosecution history disclaimer to attach, the disavowal must be clear and unmistakable."); *see also Lazare Kaplan Int'l, Inc. v. Photoscribe Tech., Inc.*, 628 F.3d 1359, 1370 (Fed. Cir. 2010); *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003). Moreover, when read in context, it is clear that the applicants, in fact, did not intend to disclaim non-script embodiments. From the context of the entire response to office action, it is clear that the principal bases for distinguishing the combination of Parulski and Ogawa was the portability of the digital camera and the ability to execute the program instructions on the camera, not the use of scripts versus the use of non-script techniques. (*See* JX-0007.00188-190.) Thus, not only is the statement that Respondents rely on insufficient to evidence the clear and unmistakable disavowal required by the case law, when read in context, it is clear that the point was not even raised or discussed in the prosecution history. (*Id.*) Thus, the prosecution history provides no basis for the Respondents' construction.

Finally, Respondents rely on a hodge podge of extrinsic evidence to support their construction. In support of their arguments that the claims are limited to scripts, Respondents rely on a combination of different technical dictionary definitions to support their construction. First, Respondents point to IEEE electrical engineering dictionaries that define the term "program instructions" as "a computer instruction in a source program. *Note*: A program instruction is distinguished from a computer instruction that results from assembly, compilation, or other interpretation process." (RX-2084.0003.) Second, Respondents note the Microsoft Computer Dictionary that defines "script" as "[a] type of program that consists of a set of instructions to an application or utility program." (RX-2987.0002.) The ALJ does not find either of these definitions suggest that the term "directed image capture sequence" should be limited only to scripts. This is particularly true where the specification clearly contemplates non-script embodiments. As for Respondents' "retrievable" requirement, Respondents rely on testimony by their expert that this requirement is implicit in the embodiments described in the specification. (RX-2147C at Q/A 53.) The ALJ does not find this argument or evidence particularly persuasive for reading the "retrievable" limitation into the claims particularly given the limited circumstances the Federal Circuit has identified for limiting otherwise broad claim terms. *See Thorner*, 669 F.3d at 1365.

Accordingly, the ALJ rejects Respondents' construction of the term "directed image capture sequence" and adopt FlashPoint's construction for this term. Thus, the term "directed image capture sequence" is construed to mean "instructions, which, when executed, guide a user through a series of image captures."

4. "interactive instructions"

FlashPoint	"prompts that guide a user to perform specific operations"
Respondents	"a set of related textual commands that call for the user to perform actions with respect to a captured image"

The principal dispute between the parties regarding this claim term is whether the "interactive instructions" must be "textual commands" or not. Respondents repeatedly argue that the '538 Patent "describes 'interactive instructions' as comprising a set of textual commands . . . that direct a user to capture various views of a subject. . . ."[4] (RIB at 144.) Respondents contend that the '538 Patent "expressly distinguishes icons or soft key labels from 'interactive instructions.'" (RIB at 144.) And that "'[i]cons,' by nature, are symbols and do not denote 'instructions.'" (RIB at 145.) Respondents argue that the '538 Patent "uses 'icons' for conveying 'status information'" and "are distinct from 'interactive instructions.'" (RIB at 145.) Also, Respondents assert that "soft key labels . . . are described . . . as 'options' that are displayed on the LCD screen, and thus are not 'instructions.'" (RIB at 145.) Respondents also rely on statements made during the prosecution history of applications that are related to the '538 Patent. (RIB at 145.) In particular, Respondents assert that during the reexamination of one of those related patents, the '575 Patent, FlashPoint distinguished "interactive instructions" from other visual "prompts," such as "status information." (RIB at 145.) Respondents contend that FlashPoint "made it clear that mere 'instructions such as 'PLAY,' 'ZOOM,' and 'EXPAND' . . .

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[4] The ALJ notes that Respondents repeatedly cite to a summary determination motion they filed before the hearing. However, the ALJ declines to consider any of these citations. The brief is not evidence. Moreover, it appears to be flagrant attempt to evade the page limits set by the ALJ in this investigation.

are not interactive instructions." (RIB at 146.) Respondents argue that FlashPoint's construction of "prompts that guide a user to perform specific instructions" is nothing more than an improper attempt to recapture what was surrendered. (RIB at 146.)

Respondents also argue that the claim language supports their requirements that the "interactive instructions" prompting the image capture must be "related." (RIB at 146.) Specifically, Respondents argue that the first reference to interactive instructions provides the antecedent basis for the second reference and the claim requires that the instructions be "updated." (RIB at 146.)

Respondents also make the point that FlashPoint's construction, "prompts that guide a user to perform specific operations," completely ignores the word "interactive" in an attempt to read it out of the claim. (RIB at 146.) Respondents argue that this definition attempts to recapture what was distinguished in the intrinsic record of the '538 Patent, *e.g.*, icons and soft keys. (RIB at 146.)

FlashPoint relies on the specification to support its construction. FlashPoint argues that Respondents' construction is improper because it attempts to limit "interactive instructions" to "textual" instruction and because they "call for the user to perform actions with respect to the captured image." (CIB at 138.)

The ALJ does not find either construction to be correct. First, the ALJ rejects Respondents' efforts to limit the "interactive instructions" to "textual" instructions. There is nothing in the plain and ordinary meaning of the term "instructions" that requires that they be "textual." The abstract explains that "interactive instructions" are displayed on the display screen and "prompt the user to perform specific operations…" and are also "automatically updated to thereby guide the user through a series of related image captures." (JX-0007 at

Abstract.) The specification further explains that "interactive instructions that guide the user through the mode-specific operations." (JX-0007 at 2:41-42.) The specification further explains the ultimate goal of the use of "interactive instructions" that "guide the user through complex tasks in accordance with the present invention" as "eliminat[ing] the need for help screens and for the user to remember complicated key sequences, and increases the ease of use and operation of the digital camera." (JX-0007 at 3:3-8.)

Respondents' citations to the description of the preferred embodiments that shows "textual" interactive instructions does not limit the claims. *See Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("The patentee is entitled to the full scope of his claims, and we will not limit him to his preferred embodiment or import a limitation from the specification into the claims."). Moreover, while Respondents are correct that the specification does distinguish between "soft keys" and "interactive instructions," the ALJ does not discern in those distinctions any disclaimer meant to limit "interactive instructions" in any way. But once again, the specification is clear that when it is drawing those distinctions it is discussing the preferred embodiment, which suggests that the patentee did not intend for those comments to limit the meaning of the term "interactive instructions." (*See* JX-0007 at 6:36-41.) The parties also cite to testimony by the various experts. However, the ALJ finds this testimony unpersuasive and given the clearness of the intrinsic record such testimony is unnecessary. Thus, the ALJ declines to rely on the various expert statements cited by the parties.

The parties also dispute about whether the instructions have to be "with respect to the captured image." FlashPoint offers no arguments why specifically it disagrees with this limitation. However, Respondents do not offer much argument in support of it either. The ALJ is not sure what Respondents mean by "with respect to a captured image." The specification is clear that the instructions "guide the user through the mode specific operations." This is slightly broader than "with respect to the captured image," which seems very specific. Also, Respondents construction seems slightly at odds with the preferred embodiment, which shows a set of "interactive instructions" guiding a user through a series of operations related to capturing images related to an insurance claim. (*See* JX-0006 at 9:25-33.) These instructions do not necessary relate to the "captured" image, but instead relate to images "to be captured." (*Id.*) FlashPoint's construction is slightly too broad in this respect as well. It only requires that the prompts relate to "specific operations." The claims and specification are clear that the operations being instructed relate to the "directed image capture sequence" being performed. In the end, the ALJ finds a slightly modified version of FlashPoint's construction that limits the "specific operations" to operations related to the "directed image capture sequence" being performed most aligns with the language of the specification and the plain and ordinary meaning of the term "interactive instructions." Thus, the ALJ construes interactive instructions to mean: "prompts that guide a user to perform specific operations related to the directed image capture sequence."

5. "overlay bar"

FlashPoint	"an area to display information"
Respondents	"a horizontally oriented rectangular area that appears on top of a background image, an."

Respondents argue that their construction is supported by the specification, which they argue consistently illustrates an "overlay bar" as a horizontally oriented rectangular area being displayed on a background image. (RIB at 147.) Respondents assert that FlashPoint's construction is so broad that it covers the entire area of the LCD screen for displaying information. (RIB at 147.) Respondents also contend that FlashPoint's construction would eliminate the term from the claims and ignores the embodiments taught in the '538 Patent that show the "overlay bar" as a horizontally oriented rectangular area on the display. (RIB at 147.)

FlashPoint argues that the plain and ordinary meaning of "overlay bar" requires that it must lie on top of the image otherwise displayed on the integrated display. (CIB at 139.) FlashPoint contends that "[i]n other words, the image on the screen is not resized in order to provide area to display the 'overlay bar.'" (CIB at 139.) FlashPoint argues that Respondents improperly rely on exemplary embodiments of the inventions of the '538 Patent depicted in the patent figures and thereby improperly importing limitations from the specification into the claims. (CIB at 139.)

The parties' arguments on this term are wholly inadequate. Neither side provides more than the most skeletal of arguments. The ALJ does not believe that either construction is correct. FlashPoint's construction is so broad as to be almost meaningless. While FlashPoint attempts to partially salvage their construction by admitting in their post-hearing briefs that the "overlay bar" must displayed over the image and the image must not be re-sized, the ALJ still finds it overly broad. Respondents' construction is also infirm. Respondents read a number of limitations such as that the "overlay bar" be "horizontally oriented" and "rectangular" and that it appear "on top of a background image," and that the "overlay bar" "include[] status information and/or interactive instructions." Some of these limitations are more justifiable than others. Nevertheless, the claim language provides substantial guidance on the meaning of this term. The term "overlay bar" implies that the "overlay bar" appears on top of or over the image being displayed and that it is some sub-area of the display. Thus, Respondents are correct that a "bar" would not take up the entire display as would be allowed under FlashPoint's proposed construction. Thus, the claim language itself implies something narrower than FlashPoint's very broad construction of "an area to display information." However, there is nothing in claim language that would require that the "overlay bar" be "horizontal" or "rectangular." As for Respondents' requirements that the "overlay bar" includes "status information and/or interactive instructions," the claim already requires that the "interactive instructions are displayed in the form of an overlay bar." Thus, Respondents other contentions are redundant of the existing claim language.

As for Respondents' reliance on the preferred embodiments, Respondents point to no language in the specification would limit the "overlay bar" to the preferred embodiments, so the ALJ declines to do so.

Given that both constructions are inferior to the plain language of the claims, the ALJ finds that the term "overlay bar" should be given its plain and ordinary meaning and rejects both constructions for the reasons stated above.

6. "integrated display"

FlashPoint	"a display that is housed in the same unit as the digital camera"
Respondents	"a display that is housed in the same unit as the digital camera"

The parties do not appear to dispute this term. (RIB at 142; CX-0615C at Q/A 61-67.) Indeed, it is unclear to the ALJ why it is necessary to construe this term. However, because it is agreed upon by the parties and is consistent with the plain and ordinary meaning of the term "integrated display," the ALJ adopts FlashPoint's and Respondents' construction of "integrated display." Accordingly, "integrated display" is construed to mean "a display that is housed in the same unit as the digital camera."

7. "series of related image captures"

FlashPoint	Plain and ordinary meaning
Respondents	"two or more related and retrievable images taken by the user"

The parties' dispute regarding this term centers on Respondents' requirement that the images be "retrievable" as was disputed in "direct image capture sequence." (CRB at 62.) The ALJ rejected that limitation above. For the same reasons, the ALJ rejects reading the "retrievable" limitation into this claim term. Accordingly, the ALJ simply construes the term "series of related image captures" as its plain and ordinary meaning.

V. INFRINGEMENT DETERMINATION

A. Applicable Law

In a Section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *Certain Flooring Products*, Inv. No. 337-TA-443, Commission Notice of Final Determination of No Violation of Section 337, 2002 WL 448690 at 59, (March 22, 2002); *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376 (Fed. Cir. 1998).

Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, *i.e.*, when the properly construed claim reads on the accused device exactly. *Amhil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. The Supreme Court has described the essential inquiry of the doctrine of equivalents analysis in terms of whether the accused product or process contains elements identical or equivalent to each claimed element of the patented invention. *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 40 (1997).

Under the doctrine of equivalents, infringement may be found if the accused product or process performs substantially the same function in substantially the same way to obtain substantially the same result. *Valmont Indus., Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1043 (Fed. Cir. 1993). The doctrine of equivalents does not allow claim limitations to be ignored. Evidence must be presented on a limitation-by-limitation basis, and not for the invention as a whole. *Warner-Jenkinson*, 520 U.S. at 29; *Hughes Aircraft Co. v. U.S.*, 86 F.3d 1566 (Fed. Cir. 1996). Thus, if an element is missing or not satisfied, infringement cannot be found under the doctrine of equivalents as a matter of law. *See, e.g.*, *Wright Medical*, 122 F.3d 1440, 1444 (Fed. Cir. 1997); *Dolly, Inc. v. Spalding & Evenflo Cos., Inc.*, 16 F.3d 394, 398 (Fed. Cir. 1994); *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538-39 (Fed. Cir. 1991); *Becton Dickinson and Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 798 (Fed. Cir. 1990).

The concept of equivalency cannot embrace a structure that is specifically excluded from the scope of the claims. *Athletic Alternatives v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996). In applying the doctrine of equivalents, the Commission must be informed by the fundamental principle that a patent's claims define the limits of its protection. *See Charles Greiner & Co. v. Mari-Med. Mfg., Inc.*, 92 F.2d 1031, 1036 (Fed. Cir. 1992). As the Supreme Court has affirmed:

> Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to

> individual elements of the claim, not to the invention as a whole. It is important to ensure that the application of the doctrine, even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety.

Warner-Jenkinson, 520 U.S. at 29.

To prove direct infringement, FlashPoint must prove by a preponderance of the evidence that each of the accused products either literally infringe or infringe under the doctrine of equivalents the asserted claims of the asserted patents. *Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 261 F.3d 1329, 1336 (Fed. Cir. 2001).

A party can also indirectly infringe a patent. To prevail on a claim for indirect infringement, a patentee must first demonstrate direct infringement, and then establish that the "defendant possessed the requisite knowledge or intent to be held vicariously liable." *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272–73 (Fed. Cir. 2004). The knowledge requirement must be met by a showing of either actual knowledge or willful blindness. *Global–Tech Appliances, Inc. v. SEB S.A.*, — U.S. ——, 131 S. Ct. 2060, 2068 (2011).

Under 35 U.S.C. § 271(b), "[w]hoever actively induces infringement of a patent shall be liable as an infringer." "To prove induced infringement, the patentee must show direct infringement, and that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1363 (Fed. Cir. 2012) (internal quotations omitted).

The Supreme Court has held that "induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement." *Global-Tech*, 131 S. Ct. at 2070. In so holding, the Supreme Court rejected the Federal Circuit's "deliberate indifference" to a "known risk" test. *Id.* at 2071. It explained that the "knowledge" required under § 271(b) could be satisfied by a showing of actual knowledge or "willful blindness." *Id.* at 2068–71. The

Supreme Court explained that a defendant acts with willful blindness if she "subjectively believe[s] that there is a high probability that a fact exists" and "take[s] deliberate actions to avoid learning of the fact." *Id.* at 2070, 2070 n.9. In contrast, a defendant who "merely knows of a substantial and unjustified risk of [ ] wrongdoing" acts recklessly, and a defendant who "should have known of a similar risk, but in fact, did not" acts negligently. *Id.* at 2071. "Inducement requires evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities." *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (*en banc*).

Under 35 U.S.C. § 271(c), "[w]hoever offers to sell or sells within the United States or imports into the Unites States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be specifically made to or specially adapted for use in the infringement of the patent, and not a staple article or commodity suitable for substantial non-infringing use, shall be liable as a contributory infringer." "Contributory infringement imposes liability on one who embodies in a non-staple device the heart of a patented process and supplies the device to others to complete the process and appropriate the benefit of the patented invention." *Vita–Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1327 (Fed. Cir. 2009). To state a claim for contributory infringement, an infringer must sell, offer to sell or import into the United States a component of an infringing product "knowing [the component] to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non infringing use." 35 U.S.C. § 271(c); *see Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1320 (Fed. Cir. 2009). As with induced infringement, a claim for contributory infringement must also contain allegations of the requisite knowledge of the patent-in-suit at the time of infringement. *Global-Tech*, 131 S. Ct. at 2068. In addition, the patentee bears the burden of proving that the accused products have no substantial non-infringing uses. *See Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1363 (Fed. Cir. 2006).

A seller of a component of an infringing product can also be held liable for contributory infringement if: (1) there is an act of direct infringement by another person; (2) the accused contributory infringer knows its component is included in a combination that is both patented and infringing; and (3) there are no substantial non-infringing uses for the accused component, *i.e.*, the component is not a staple article of commerce. *Carborundum Co. v. Molten Equip. Innovations, Inc.*, 72 F.3d 872, 876 (Fed. Cir. 1995).

B. Representativeness of the Exemplary Products

FlashPoint must show by a preponderance of the evidence that the products its experts analyzed are indeed "representative" of unanalyzed products. *See Lucent Technologies, Inc. v. Gateway, Inc.*, 543 F.3d 710, 723 (Fed. Cir. 2008) ("A patentee may rely on either direct or circumstantial evidence to prove infringement."); *see also Certain Semiconductor Chip Packages With Minimized Chip Package Size And Products Containing The Same (II)*, Inv. No. 337-TA-605, Initial Determination at 55-57 (December 1, 2008) (reversed by the Commission on other grounds). Indeed, complainant cannot ignore that "the burden of proof on infringement, which falls on . . . the patentee[, and the patentee] cannot simply 'assume' that all of [respondents'] products are like the one [complainant's experts] tested and thereby shift to [respondents] the burden to show that is not the case." *L&W, Inc. v. Shertech, Inc.*, 471 F.3d 1311, 1318 (Fed. Cir. 2006). However, while it is true that FlashPoint may not "simply assume" that the representative products encompass the untested products, "there is nothing improper about an expert testifying in detail about a particular device and then stating that the same analysis applies to other allegedly infringing devices that operate similarly, without discussing each type of device in detail." *See TiVo, Inc. v. Echostar Comm. Corp.*, 516 F.3d 1290, 1308 (Fed. Cir. 2008); *see also Union Carbide Chemical & Plastic Technology Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1376-1377 (Fed. Cir. 2005); *San Huan New Materials High Tech, Inc. v. Int'l Trade Comm'n*, 161 F.3d 1347, 1359-60 (Fed. Cir. 1998).

C. The '471 Patent

FlashPoint has alleged that respondents ZTE, Huawei, and HTC infringe claims 1, 2, and 4 of the '471 Patent.

1. Respondents' Products

Respondents raise several arguments in support of their contention that FlashPoint's representative products are not representative. First, Respondents argue that FlashPoint's analysis relied on Android version 4.0, but offers only conclusory testimony on why this is representative of the 13 different versions of Android that run on Respondents' accused devices. (RIB at 7.) Second, Respondents argue that each manufacturer further customizes the Android version running on their accused devices to suit their particular needs and FlashPoint's expert only offered testimony that the software is not modified in "many relevant aspects." (RIB at 7.) [redacted] Instead, Respondents note that some of the products run processors by different manufacturers. (RIB at 8.) [redacted] Thus, for all these reasons, Respondents contend that FlashPoint's representative products arguments should be rejected. FlashPoint does not appear to address Respondents' arguments at all.

Beginning with the last argument first, the ALJ agrees with Respondents that to the extent the products use processors from different companies, FlashPoint has not shown that the "representative products" are in fact representative. [redacted] Respondents' briefs offer only the most cursory of arguments, string citing large blocks of expert testimony. [redacted]

2. The Accused Products Do Not Infringe

The ALJ agrees with Respondents that their products do not infringe. Specifically, the ALJ agrees that Respondents' Accused Products do not have an operating system that is independent of the processing mode of the image processing subsystem under the proper constructions of "operating system," "image processing subsystem" and "said operating system is independent of said processing mode used by said image processing subsystem." The ALJ agrees with Respondents that FlashPoint's infringement theory relies on its gloss on the "operating system," which improperly and categorically excludes components such as the kernel. The ALJ agrees that there is no genuine dispute that components of the operating system, including the kernel, must change in Respondents' Accused Products in the event the processing mode of the image processing subsystem is changed.

As discussed *supra* Section IV.B.4, the processing mode is determined by the architecture of the device, *i.e.*, whether it is built to perform image processing using hardware, software, or a combination of hardware and software. (Tr. 180:3-7.) A device that can use hardware and software components for image processing has a single architecture: a hybrid hardware/software architecture. (Tr. 183:9-184:4.) [redacted]

[redacted] FlashPoint does not dispute [redacted]

[redacted] These facts are largely undisputed.

What is disputed is whether the drivers and kernel are part of the operating system or the image processing system. The ALJ finds that applying the construction of "operating system" of "software that manages the hardware resources of the digital device" that the kernel and device drivers of the accused devices are part of the operating system for several reasons. First, it is undisputed that generally the kernel is "the piece of software that most directly interacts with the hardware." (Tr. 221:20-222:15.) Moreover, FlashPoint's expert generally characterized the kernel as "the seed, the center part of the operating system" and that "if a computer system in general had a kernel, [it] would [be] expect[ed]. . . to be part of the operating system." (Tr. 454:18-455:9; *see also* CX-744C at Q/A 184.) Indeed, some sources have characterized that "the core of the operating system is the **kernel**." (RX-2385 at 3 (emphasis in original); Tr. 338:8-339:25.)

Second, Respondents submitted extensive evidence from their experts establishing that [redacted]

> [redacted]
>
> [redacted]
>
> [redacted]

[redacted]

Dr. Oliver and Dr. Sonko testified in a similar manner. (RX-2172C at Q/A 176-193; RX-2060.4C Q/A 506-524.) Furthermore, at the hearing, Dr. Medvidovic further explained that architecture of the Android operating system differs significantly from the claimed invention in that the Android operating system cannot accomplish the goal of the '471 Patent [redacted]

The ALJ further agrees with Respondents that Dr. Mangione-Smith, on the other hand, offers a result-oriented infringement theory. The ALJ agrees that he improperly declares those components of the operating system that are dependent on the processing mode [redacted] to be outside the operating system precisely because they are dependent on the processing mode:

[redacted]

(CX-614.1C at Q/A 84; see also RX-2172C at Q/A 191; RX-2184C at Q/A 203-04.) The ALJ agrees with Respondents that following such circular reasoning, the operating system always would be independent of the processing mode since there are always some components of the operating system that are independent of the processing mode. (RX-2184C at Q/A 204.) The ALJ agrees that this reasoning is flawed. (*Id.*) If some components of the operating system must be changed, then the operating system is not independent of the processing mode; it is thus impossible to use a different processing mode with the same operating system, which is the objective of the '471 Patent and required according to the plain language of both sides' proposed claim constructions. (*Id.*)

FlashPoint's arguments to the contrary largely rehash its claim construction arguments. FlashPoint suggests that Respondents' experts admitted that [redacted] However, FlashPoint misrepresents what both experts said. [redacted] As the ALJ discussed, the drivers may or may not be part of the image processing subsystem depending on the architecture of the image processing subsystem and operating system. [redacted]

[redacted] This does not help FlashPoint. FlashPoint's remaining arguments merely rehash its claim construction arguments that have been rejected. (CRB at 13-14; CIB at 26-28).

The ALJ finds that [redacted] falls within the construction for "operating system" adopted by the ALJ. (RX-2184C at Q/A 205; RX-2172C at Q/A 175; CX-534C at 18.)

[redacted]

The ALJ notes that despite FlashPoint's best efforts, Respondents' Accused Products simply work quite different from what is taught and claimed in the '471 Patent. [redacted] However, this argument falls well short of the mark for several reasons. First, none of the alleged admissions cited by FlashPoint go anywhere near as far as the conclusion FlashPoint reaches. [redacted] The plain language of the claims requires independence of the "operating system" and "image processing subsystem," and Respondents devices simply do not meet that limitation. Accordingly, the ALJ finds that Respondents' devices do not infringe claim 1 of the '471 Patent.

3. Dependent Claims

Claims 2 and 4 depend on independent claim 1. Inasmuch as each claim limitation must be present in an accused device in order for infringement to be found (either literally or under the doctrine of equivalents), a device cannot infringe a dependent claim if it does not practice every limitation of the independent claim from which it depends. *See Warner-Jenkinson Co.*, 520 U.S. at 40; *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1359 (Fed. Cir. 2007). Furthermore, the Federal Circuit explained that:

> One may infringe an independent claim and not infringe a claim dependent on that claim. The reverse is not true. One who does not infringe an independent claim cannot infringe a claim dependent on (and thus containing all the limitations of) that claim.

Wahpelton Canvas Co., Inc. v. Frontier, Inc., 870 F.2d 1546, 1552 (Fed. Cir. 1989). Thus, as the ALJ has found that independent claim 1 is not infringed, then dependent claims 2 and 4 are also not infringed.

D. The '190 Patent

FlashPoint has alleged that respondents ZTE, Huawei, and HTC induce infringement of claim 13 of the '190 Patent.

1. Representative Products

Respondents argue that the products FlashPoint contends are representative are not representative for purposes of the '190 Patent. (RIB at 8-10, 11-12.) FlashPoint's expert testified they were representative. (CX-614.1C at Q/A 1102, 1432, 1607.) This evidence, while minimal, is sufficient to carry FlashPoint's burden by a preponderance of the evidence.

2. Claim 13

FlashPoint argues that Respondents infringe through the accused devices to send MMS messages. The ALJ finds that FlashPoint has failed to show that the accused products infringe claim 13 of the '190 Patent. Specifically, the ALJ finds that FlashPoint has at least failed to show that the accused products meet the following claim limitations:

- "Predefined Model"
- "formatted document"

FlashPoint argues that all of the accused devices "transfer[] the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device." (CIB at 92-94; 100-101; 105-106.) Specifically, FlashPoint contends that when the user presses the "send" button in the messaging application after composing the MMS message, the accused devices transfer the text and images into a format defined by the Open Mobile Alliance MMS standard. (CIB at 92-94; 100-101; 105-106.) [redacted]

[redacted]

FlashPoint argues that the MMS messages are [redacted] FlashPoint contends that the accused products generates the MMS message in accordance with the predefined model defined by the OMA standards. (CIB at 92-94; 100-101; 105-106.)

Consistent with both parties proposed construction, the ALJ held that in order to be a "formatted document," a document must include instructions for assembling the text and image(s) for display. (Section IV.C.3, *supra*; CX-614.1C at Q/A 933.) The ALJ agrees with Respondents and finds that FlashPoint fails to identify any "instruction[s] on how to assemble the image and text for display" in the MMS message sent by the Accused Products. (*See, e.g.*, CX-614.1C at Q/A 1122-26 (emphasis added).) Instead, FlashPoint relies on OMA MMS Encapsulation Protocol v1.2 to claim that all MMS messages must contain such instructions in a "presentation part." FlashPoint fails to acknowledge, however, that the protocol explicitly identifies such "presentation part" as optional. (Tr. 492:19-22; CX-418 at 13; *see also* RX-2184C at Q/A 314.) Nor has FlashPoint presented any evidence that this optional feature is actually used in the Accused Products. (*Id.*)

The ALJ finds that the evidence shows that, in fact, the presentation of multimedia content in MMS messages sent by the Accused Products is determined by the recipient device. (*See, e.g.*, RX-2173C at A212-15; RX-2059.3C at A464-65; RX-2184C at A328, A447; RDX-4007C at 7; RDX-5213.) When a user sends out the same MMS message from one of

Respondents' Accused Products, the message is displayed differently depending on the recipient device. (*Id.*) Although there is no requirement that the receiving device display the formatted document the same, there is a requirement that the "predefined model" "control the formatting of a document *as it is being generated*, *thereby determining the appearance of the formatted document*. When the formatting is entirely dependent on the instructions contained in the receiving device, the predefined model is not controlling the formatting of the formatted document "as it is being generated" and also does not "determin[e] the appearance of the formatted document." Thus, the MMS messages cannot satisfy the "formatted document" limitation.

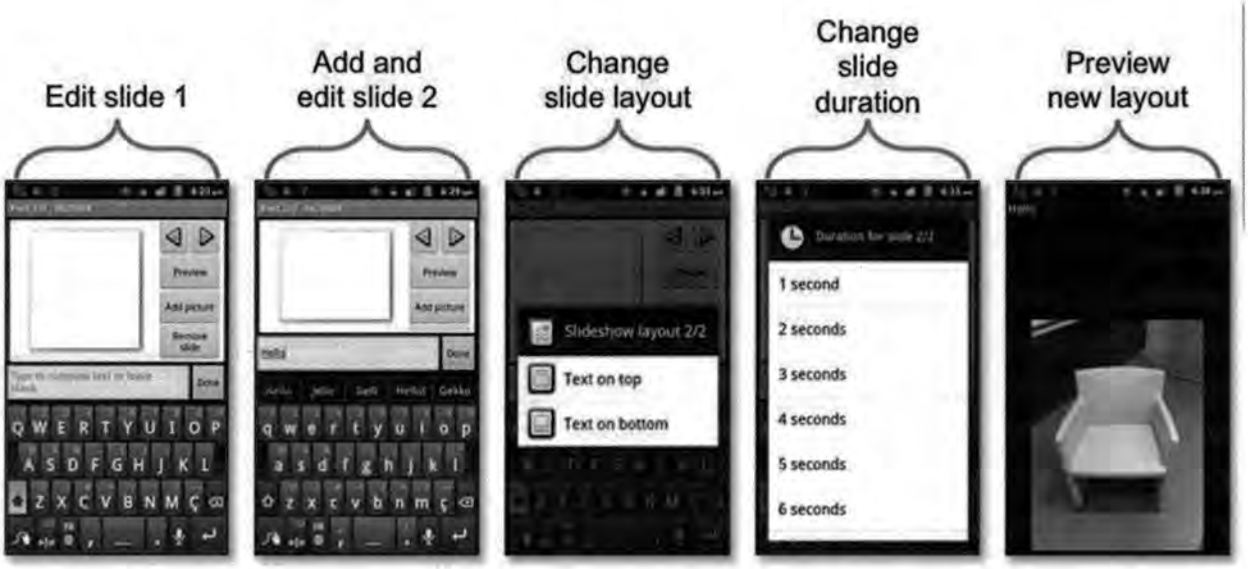
The ALJ further finds that Respondents' Accused Products do not format a document "in accordance with a predefined model". This is true for two reasons: the formatting of the document is not defined prior to its creation and there is no set of commands that determines the formatting of the document when it is displayed.

FlashPoint alleges that the Open Mobile Alliance (OMA) MMS v1.2 protocol determines the formatting of MMS messages by formatting MMS messages using an SMIL presentation part. The MMS protocol specifies how to exchange MMS messages between computers over a network, but does not impose any specific formatting. (RX-2184C at Q/A 314-319.) [redacted] The ALJ agrees and finds that this cannot be the predefined model.

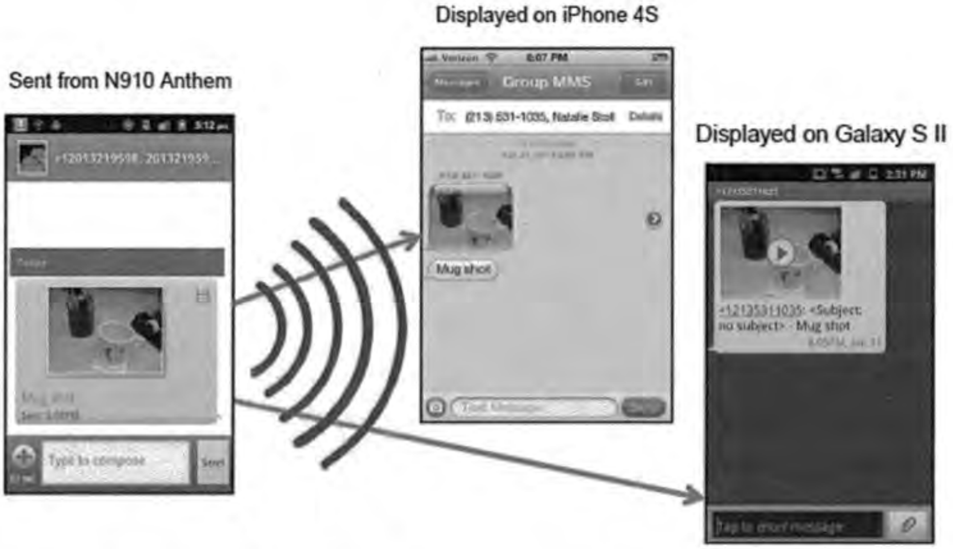
In addition, the ALJ notes that FlashPoint first cites an OMA MMS "conformance document" to claim that MMS messages are structured as a "slide show," with each slide containing a text region and a video / image region. (CIB at 93, 100, 111.) A conformance document, however, is "not a statement about what all MMS messages must or must not have," but only describes test cases. (Tr. 1275:24-1276:9.) Thus, by itself it is not evidence of infringement by the accused devices. *See Fujitsu Ltd. v. Netgear, Inc.*, 620 F.3d 1321, 1327-29 (Fed. Cir. 2010).

Moreover, FlashPoint provides no evidence of the content of any SMIL part allegedly used to format the MMS messages. The ALJ finds that There is no evidence, for instance, that any SMIL presentation part allegedly present in the MMS messages sent by the Accused Products contains "instructions on the appearance of the text and images for display," as required by ALJ's construction of "formatted document." All of the evidence of record shows that the appearance of an MMS message sent by the Accused Products is determined by the recipient device.

Furthermore, the ALJ finds that to the extent an MMS message ever includes formatting, the lack of any formatting imposed by the MMS protocol is demonstrated by the fact that the user can decide how to lay out the MMS message when creating it in Accused Products. For example, it is undisputed that in the ZTE Anthem a user can decide whether text is positioned above or below the slides in a slideshow and the duration of display for each slide (*see* excerpt from RDX-5212 below; Tr. 381:17-24), and it is similarly undisputed that in the [redacted] (RX-2184C at Q/A 326; RX-2173C at Q/A 304; RDX-4007C at 18.)


Edit slide 1
Add and edit slide 2
Change slide layout
Change slide duration
Preview new layout
Preview
Add picture
Remove slide
Done
Slideshow layout 2/2
Text on top
Text on bottom
1 second
2 seconds
3 seconds
4 seconds
5 seconds
6 seconds

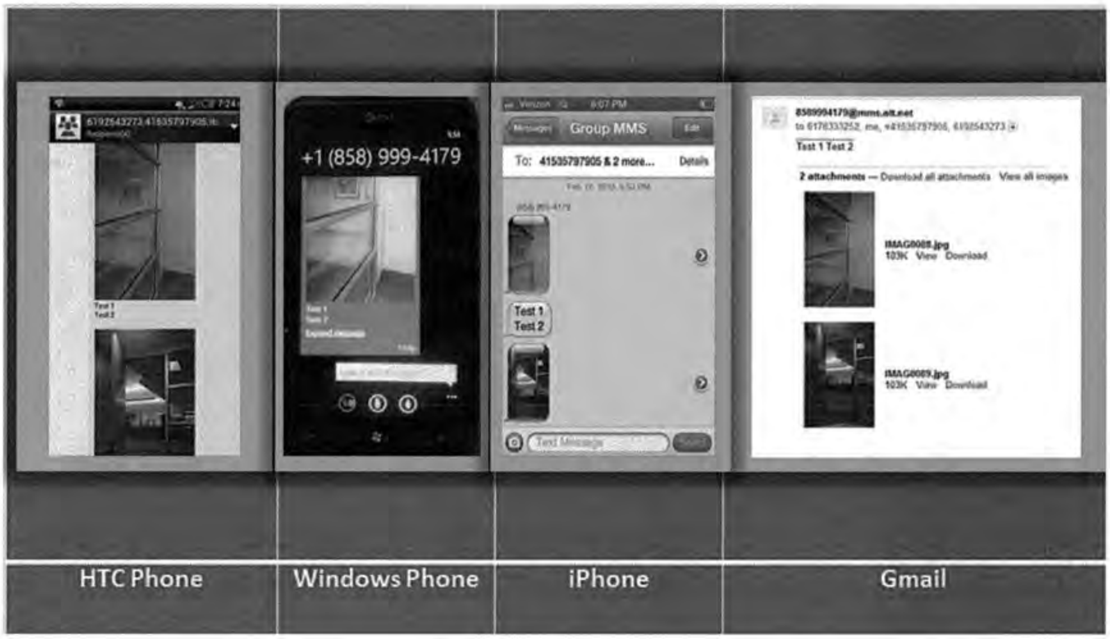
Moreover, the ALJ finds that in Respondents' Accused Products an MMS message is not created with a set of commands that will determine its appearance because the appearance is ultimately determined by the recipient device. (RX-2059.3C at Q/A 465; RX-2173C at Q/A 305; RX-2184C at Q/A 329.) Dr. Medvidovic explained that, as compared to HTML documents which may be displayed slightly differently in different browsers, the formatting of an MMS message can vary significantly because the MMS standard permits recipient devices to have a significant impact on formatting. (Tr. 1099:4-1100:17.) Respondents have illustrated these significant differences in formatting in demonstrative exhibits. (RDX-2116-18; RDX-4007C at 7; RDX-5213.) For example, RDX-5213 (excerpted below) shows how a single MMS message, sent from the ZTE Anthem, is formatted very differently in a Samsung Galaxy S III as compared to an Apple iPhone 4S. (RX-2184C at Q/A 328; Tr. 1102:6-1103:21.) While there is no requirement that the formatted document always have the same appearance this is evidence that there is no "predefined model" that "control[s] the formatting of a document as it is being generated, thereby determining the appearance of the formatted document." Instead, the accused devices simply send information that is assembled at recipient device in a manner defined by the recipient device and not the sending device.


Displayed on iPhone 4S
Sent from N910 Anthem
Displayed on Galaxy S II
Group MMS
To: (213) 531-1035, Natalie Stoll
Type to compose
Send

Mug shot

+12135311035: <Subject: no subject> - Mug shot

As displayed on the Galaxy S III, there is a yellow background, the phone number and lack of subject are indicated below the picture, there is an arrow in the picture, and the time and date are indicated in the bottom right corner of the yellow background area. By comparison, on the iPhone 4S, the message text is in a separate bubble with a white background below the picture, the phone number is on top of the picture, the time and date are centered above, and at the top of the screen the device indicates that the MMS was sent to a group. These displays are markedly different, and thus it is clear that the formatting was not determined by any predefined model. [redacted]



Moreover, the ALJ notes that in its opening brief, the entirety of FlashPoint's contention that the Accused Products for each Respondent have a "predefined model" is one sentence stating that the device "generates the MMS message in accordance with the predefined model defined by the OMA standards." (CIB at 93, 101, 106, 111.) The portions of Dr. Mangione-Smith's witness statement which FlashPoint cites do not even address the predefined model, but rather how information captured from the user is transferred to the alleged formatted document. (CX-614.1C at Q/A 1123-26, Q/A 1456-64, Q/A 1632-40, Q/A 1883-84 (cited in CIB at 92, 100, 106, 111). Indeed, in his testimony, Dr. Mangione-Smith refers to the OMA MMS v1.2 protocol, but does not explain how this reflects a predefined model on the Accused Products that imposes a particular formatting. (*Id.*) Thus, the ALJ further finds that FlashPoint's conclusory, unsupported allegation cannot sustain its burden of proving that this claim element is met in the Accused Products. *See Novartis Corp. v. Ben Venue Labs., Inc.*, 271 F.3d 1043, 1051-55 (Fed. Cir. 2001).

E. The '538 Patent

[redacted]

1. Representative Products

FlashPoint's infringement expert analyzed two HTC products, [redacted] HTC argues that "[a]lthough [FlashPoint's expert] testified that he looked at information other HTC Accused Products, at no point did he provide any testimony that (1) any other products infringed any claims, [redacted] (RIB at 12.) [redacted] position." [redacted] HTC contends that "at least some of the products 'analyzed by Dr. Stevenson are incapable of performing the very functions that he relied on for infringement." (RIB at 12.) [redacted]

The ALJ agrees with HTC. FlashPoint does not address this argument in either of its briefs. In the interest of completeness, the ALJ reviewed the witness statement of Dr. Stevenson regarding infringement of the '538 Patent. (CX-0615.1 at Q/A 109-318.) In that testimony, FlashPoint's expert testifies that he reviewed the manuals for "other devices HTC produced in this Investigation" (Q/A 118) and that he reviewed the source code of a number of different HTC devices (Q/A 119). [redacted] There is nothing to bridge the gap between these products and all of the other HTC products that FlashPoint has accused of infringement. This gap is especially glaring because the next section (starting at Q/A 319) of his testimony deals with "Pantech Representative Products." [redacted] The ALJ further finds that FlashPoint has offered no evidence that these products are "representative" of the other products FlashPoint accuses of infringement. [redacted]

2. Intent to Induce

As was explained above, the Patent Act provides that a party who "actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). "A finding of inducement requires both knowledge of the existence of the patent and 'knowledge that the induced acts constitute patent infringement.'" *Commil USA, LLC v. Cisco Sys., Inc.*, 720 F.3d 1361, 1367 (Fed. Cir. 2013) (quoting *Global–Tech*, 131 S.Ct. at 2068); *see also DSU Med. Corp.*

v. JMS Co., 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc) (explaining that an "alleged infringer must be shown . . . to have knowingly induced infringement," not merely knowingly induced the acts that constitute direct infringement" (citation omitted)). "The knowledge requirement of *Global–Tech* may be satisfied by showing actual knowledge or willful blindness." *Commil*, 720 F.3d at 1366. In reaching this conclusion the *Global-Tech* expressly distinguished actual knowledge and willful blindness from recklessness and negligence explaining that:

> [A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing and who can almost be said to have actually known the critical facts. By contrast, a reckless defendant is one who merely knows of a substantial and unjustified risk of such wrongdoing and a negligent defendant is one who should have known of a similar risk but, in fact, did not.

Id. at 2070–71 (citations omitted). The Federal Circuit explained that "the Court acknowledged that the facts that must be adduced to find willful blindness prevent such a finding on facts that support only recklessness or negligence." *Commil*, 720 F.3d at 1366 (citation omitted). The Supreme Court permitted "a finding of knowledge when there is merely a 'known risk' that the induced acts are infringing." *Global Tech*, 131 S.Ct. at 2071.

"[L]iability for active inducement may be found 'where evidence goes beyond a product's characteristics or the knowledge that it may be put to infringing uses, and shows statements or actions directed to promoting infringement.'" *Ricoh Co. v. Quanta Computer Inc.*, 550 F.3d 1325, 1341 (Fed. Cir. 2008) (quoting *Metro–Goldwyn–Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 935 (2005)). As the Supreme Court explained in *Grokster* in the context of infringement under the copyright laws, "[e]vidence of active steps ... taken to encourage direct infringement, such as advertising an infringing use or instructing how to engage in an infringing use, show an affirmative intent that the product be used to infringe." 545 U.S. at 936 (internal quotation marks and citations omitted).

FlashPoint's opening brief contains only the most skeletal discussion of the intent requirement for active inducement. (CIB at 140-141.) The discussion of inducement cites to no evidence. (CIB at 140-141.) In its reply brief, FlashPoint argues that HTC has had actual knowledge of the patent since March 8, 2008, when FlashPoint filed an action in the District of Delaware (Case No. 08-CV-00140). FlashPoint asserts that it was unnecessary to provide the complaint because it is a public document "providing the citation is sufficient." (CRB at 72.) FlashPoint argues that HTC's intent to induce infringement is established because it continues to offer instructions to practice the method. (CRB at 73.) FlashPoint also argues that designing new devices and testing the feature establish intent to induce. (CRB at 72.) HTC argues that FlashPoint has failed to show that HTC has knowledge of the patent and it knowingly induces infringement. (RIB at 148.) [redacted] In its reply brief, HTC argues to no evidence to support a finding that it has knowledge of the patent or knowingly induces infringement.

[redacted] FlashPoint's attitude towards providing inducement is exceedingly cavalier. In its opening brief, it cited no evidence to support any of the elements needed to prove inducement. In its reply brief, it directs the ALJ to look up its evidence on PACER. [redacted] First, it is undisputed that the 2008 Delaware litigation contained allegations of infringement of the '538 Patent. Thus, FlashPoint has shown that HTC had knowledge of the patent. *See Certain Digital Televisions and Certain Products Containing the Same and Methods* *of Using Same*, Inv. No. 337-TA-617, Comm'n Op. at 12 (April 23, 2009). [redacted] *See Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1364 n.4 (Fed. Cir. 2006). [redacted] The only "support" it offers is attorney argument that HTC designed and produced new infringing devices since learning of the patent. However, it doesn't cite a single piece of evidence to support that contention. [redacted] In the face of such scant evidence, the ALJ can only find inducement for those products that FlashPoint offered any evidence. [redacted]

3. Acts of Direct Infringement

Inducement of infringement requires that there be a showing of an underlying act of direct infringement. *See Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1326 (Fed. Cir. 2004). "Direct infringement can be proven by circumstantial evidence." *Vita–Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1326 (Fed. Cir. 2009) (citing *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986)); *see also Alco Standard Corp. v. Tenn. Valley Auth.*, 808 F.2d 1490, 1503 (Fed. Cir. 1986) ("Although the evidence of infringement is circumstantial, that does not make it any less credible or persuasive."). "Circumstantial evidence must show that at least one person directly infringed an asserted claim during the relevant time period." *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, While "a finding of infringement can rest on as little as one instance of the claimed method being performed during the pertinent time period[,]" *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009), the Federal Circuit has explained that "instruction manuals, extensive sales, and testimony by an expert that the claimed method was used by him, his wife, and likely others was 'barely sufficient' in that case to permit a jury to find underlying direct infringement," *Mirror Worlds, LLC v. Apple Inc.*, 692 F.3d 1351, 1361 (Fed. Cir. 2012).

[redacted]

Given the guidance in *Mirror Worlds*, it is unclear if this evidence would be sufficient. [redacted]

In light of this evidence, the ALJ finds that FlashPoint has presented sufficient evidence to establish acts of direct infringement.

4. Claim 1

[redacted]

a) "A method for controlling user interaction in a hand-held digital camera, the hand-held digital camera having an integrated display, the method comprising the steps of:"

[redacted]

[redacted]

b) "storing a directed image capture sequence comprising a set of program instructions in the hand-held digital camera;"

[redacted]

[redacted]

[redacted]

c) "executing the directed image capture sequence in the hand-held digital camera to display interactive instructions on the integrated display that prompt the user to perform a first operation; and"

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

The ALJ finds that when the user presses the capture button as instructed, the first image is captured and the instruction updates, making it "interactive." (CX-0615.1C at Q/A 237). [redacted] This is also an interactive instruction. (CX-0615.1C at Q/A 237-238). [redacted]

The ALJ finds that an instruction is "interactive" within the meaning of the claim if it updates in response to the user performing the prompted action. (CX-0615.1C at Q/A 80). The ALJ notes that Dr. Acton, testified that determining whether an instruction is interactive depends on what happens when the user follows the first prompt. (Tr. 1430:25 – 1431:8.) [redacted]

d) "in response to the user performing the first operation, automatically updating the interactive instructions to prompt the user to perform a second operation, thereby guiding the user through a series of related image captures, while minimizing the number of key sequences the user must memorize in order to perform the operations,"

[redacted]

[redacted] Panning the device results in the second and subsequent image captures. (*Id.*)

[redacted] The following screenshots show that the instructions are interactive.

[redacted]

[redacted] Further, the prompts comprise interactive instructions because the first prompt is updated in response to the user performing the first operation. (Tr. 1430:25 – 1431:8.)

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

e) wherein the interactive instructions are displayed in the form of an overlay bar that is on the integrated display, and the interactive instructions are updated by updating the overlay bar.

[redacted]

[redacted] As discussed above, these prompts constitute "interactive instructions" under either FlashPoint's or HTC's proposed constructions.

[redacted]

[redacted] As discussed above, these prompts constitute "interactive instructions" under either FlashPoint's or HTC's proposed constructions.

5. Claim 19

a) The First Four Elements of Claim 19 are Identical to the First Four Elements of Claim 1.

The ALJ notes that Claim 1 and claim 19 share all but the final element of the claim. (CX-615.1C at Q/A 199-200, 297-298.) Specifically, claim 1 requires that the interactive instructions be updated by updating the overlay bar. In other words, for claim 1, a change to the overlay bar must occur in response to the user performing the first action. (*Id.*) But claim 1 does not require that the overlay bar be translucent. Claim 19 does require that the device display at least one translucent overlay bar. (*Id.*) But claim 19 does not require that the interactive instructions be updated by updating the overlay bar. (*Id.*) The ALJ adopts the discussion of the first four elements laid out with respect to claim 1 above.

b) "d) displaying a first translucent overlay bar in the integrated display."

[redacted]

[redacted] As discussed above, these prompts constitute "interactive instructions" under either FlashPoint's or HTC's proposed constructions.

5. Claim 19

a) The First Four Elements of Claim 19 are Identical to the First Four Elements of Claim 1.

The ALJ notes that Claim 1 and claim 19 share all but the final element of the claim. (CX-615.1C at Q/A 199-200, 297-298.) Specifically, claim 1 requires that the interactive instructions be updated by updating the overlay bar. In other words, for claim 1, a change to the overlay bar must occur in response to the user performing the first action. (*Id.*) But claim 1 does not require that the overlay bar be translucent. Claim 19 does require that the device display at least one translucent overlay bar. (*Id.*) But claim 19 does not require that the interactive instructions be updated by updating the overlay bar. (*Id.*) The ALJ adopts the discussion of the first four elements laid out with respect to claim 1 above.

b) "d) displaying a first translucent overlay bar in the integrated display."

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

VI. VALIDITY

A. Background

1. Burden of Proof

One cannot be held liable for practicing an invalid patent claim. *See Pandrol USA, LP v. AirBoss Railway Prods., Inc.*, 320 F.3d 1354, 1365 (Fed. Cir. 2003). However, the claims of a patent are presumed to be valid. 35 U.S.C. § 282; *DMI Inc. v. Deere & Co.*, 802 F.2d 421 (Fed. Cir. 1986). Although a complainant has the burden of proving a violation of section 337, it can rely on this presumption of validity.

Respondents have the burden of proving invalidity of the patent. This "burden is constant and never changes and is to convince the court of invalidity by clear evidence." *i4i v.*

Microsoft Corp, 131 S. Ct. 2338, 2243 (2010) (citing Judge Rich in *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F. 2d 1350, 1360 (CA Fed. 1984)). Respondents' burden of persuasion *never shifts*. *Id.* The risk of "decisional uncertainty" remains on the respondent. *Technology Licensing Corp. v. Videotek, Inc.,* 545 F.3d 1316, 1327 (Fed. Cir. 2008); *see also PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1303, 1305 (Fed. Cir. 2008); *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1360 (Fed. Cir. 2007). Thus, it is Respondent's burden to prove by clear and convincing evidence that any of the alleged prior art references anticipate or render obvious the asserted claims of the patents in suit. Failure to do so means that Respondents lose on this point. *Id.* (stating, "[I]f the fact trier of the issue is left uncertain, the party with the burden [of persuasion] loses.").

Respondents also bear the burden of going forward with evidence, *i.e.*, the burden of production. *Id.* This is "a shifting burden the allocation of which depends on where in the process of a trial the issue arises." *Id.* However, this burden does not shift until a respondent presents "evidence that might lead to a conclusion of invalidity." *Pfizer*, 480 F.3d at 1360. Once a respondent "has presented a prima facie case of invalidity, the patentee has the burden of going forward with rebuttal evidence." *Id.*

2. Anticipation

A patent may be found invalid as anticipated under 35 U.S.C. § 102(a) if "the invention was known or used by others in this country, or patented or described in a printed publication in this country, or patented or described in a printed publication in a foreign country, before the invention thereof by the applicant for patent." 35 U.S.C. § 102(a).[5] A patent may be found invalid as anticipated under 35 U.S.C. § 102(b) if "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102(b). Under 35 U.S.C. § 102(e), a patent is invalid as anticipated if "the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent." 35 U.S.C. § 102(e). Anticipation is a question of fact. *Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d 1165, 1177 (Fed. Cir. 1993) ("*Texas Instruments II*"). Anticipation is a two-step inquiry: first, the claims of the asserted patent must be properly construed, and then the construed claims must be compared to the alleged prior art reference. *See, e.g.*, *Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003). It is axiomatic that claims are construed the same way for both invalidity and infringement. *W.L. Gore v. Garlock, Inc.*, 842 F.2d 1275, 1279 (Fed. Cir. 2008.)

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[5] The ALJ notes that a number of the provisions (and the numbering) of Title 35 have changed with the passage the Leahy-Smith America Invents Act. Because this patent is governed by the prior provisions of the Patent Act as it

"Claimed subject matter is 'anticipated' when it is not new; that is, when it was previously known. Invalidation on this ground requires that *every element and limitation* of the claim was *previously described in a single prior art reference*, either *expressly or inherently*, so as to place a person of ordinary skill in possession of the invention." *Sanofi-Synthelabo v. Apotex, Inc.*, 550 F.3d 1075, 1082 (Fed. Cir. 2008) (emphasis added) (citing *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1379 (Fed. Cir. 2003) and *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1267-69 (Fed. Cir. 1991)).

To anticipate, a single prior art reference must be enabling and it must describe the claimed invention, *i.e.*, a person of ordinary skill in the field of the invention must be able to

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was in force when the asserted patents issued, the ALJ cites only to the relevant provisions as they were before the AIA.

practice the subject matter of the patent based on the prior art reference without undue experimentation. *Sanofi*, 550 F.3d at 1082. The presence in said reference of *both* a specific description and enablement of the subject matter at issue are required. *Id.* at 1083.

To anticipate, a prior art reference also must disclose all elements of the claim within the four corners of said reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *see also Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1345 (Fed. Cir. 2007) (stating, "Anticipation is established by documentary evidence, and requires that every claim element and limitation is set forth in a single prior art reference, in the same form and order as in the claim."). Further, "[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Id.* (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)). The Federal Circuit explained this requirement as follows:

> The meaning of the expression 'arranged as in the claim' is readily understood in relation to claims drawn to things such as ingredients mixed in some claimed order. In such instances, a reference that discloses all of the claimed ingredients, but not in the order claimed, would not anticipate, because the reference would be missing any disclosure of the limitations of the claimed invention 'arranged as in the claim.' But the 'arranged as in the claim' requirement is not limited to such a narrow set of 'order of limitations' claims. Rather, *our precedent informs that the 'arranged as in the claim' requirement applies to all claims and refers to the need for an anticipatory reference to show all of the limitations of the claims arranged or combined in the same way as recited in the claims, not merely in a particular order*. The test is thus more accurately understood to mean 'arranged or combined in the same way as in the claim.'

Id. at 1370 (emphasis added). Therefore, it is not enough for anticipation that a prior art reference simply contains all of the separate elements of the claimed invention. *Id.* at 1370-71 (stating that "*it is not enough [for anticipation] that the prior art reference discloses part of the* *claimed invention, which an ordinary artisan might supplement to make the whole*, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention." (emphasis added)). Those elements must be arranged or combined in said reference in the same way as they are in the patent claim.

If a prior art reference does not expressly set forth a particular claim element, it still may anticipate the claim if the missing element is inherently disclosed by said reference. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002); *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherent anticipation occurs when "the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." *Id.* In other words, inherency may not be established by probabilities or possibilities. *See Continental Can*, 948 F.2d at 1268. Thus, "[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.*

The critical question for inherent anticipation here is whether, as a matter of fact, practicing an alleged prior art reference necessarily features or results in each and every limitation of the asserted claim at issue. *See, e.g.*, *Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1320 (Fed. Cir. 2004).

If there are "slight differences" between separate elements disclosed in a prior art reference and the claimed invention, those differences "invoke the question of obviousness, not anticipation." *NetMoneyIN*, 545 F.3d at 1071; *see also Trintec*, 295 F.3d at 1296 (finding no anticipation and stating that "the difference between a printer and a photocopier may be minimal and obvious to those of skill in this art. Nevertheless, obviousness is not inherent anticipation."). Statements such as "one of ordinary skill may, in reliance on the prior art, complete the work required for the invention," and that "it is sufficient for an anticipation if the general aspects are the same and the differences in minor matters is only such as would suggest itself to one of ordinary skill in the art," *actually relate to obviousness*, not anticipation. *Connell*, 722 F.2d at 1548.

3. Obviousness

Included within the presumption of validity is a presumption of non-obviousness. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 714 (Fed. Cir. 1984). Obviousness is grounded in 35 U.S.C. § 103, which provide, *inter alia*, that:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negative by the manner in which the invention was made.

35 U.S.C. § 103(a). Under 35 U.S.C. § 103(a), a patent is valid unless "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). The ultimate question of obviousness is a question of law, but "it is well understood that there are factual issues underlying the ultimate obviousness decision." *Richardson-Vicks Inc.*, 122 F.3d at 1479; *Wang Lab., Inc. v. Toshiba Corp.*, 993 F.2d 858, 863 (Fed. Cir. 1993).

Obviousness is a question of law based on underlying facts, as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). "The Graham factors are (1) the scope and content of the prior art, (2) the difference between the prior art and the claimed invention, (3) the level of ordinary skill in the field of the invention, and (4) any relevant objective considerations." *Soverain Software LLC v. NewEgg, Inc.*, --- F.3d ----, 2013 WL 216406, at *2 (Fed. Cir. January

22, 2013). "The Graham Court explained that 'the ultimate question of patent validity is one of law.'" *Id.* (citing *Graham*, 383 U.S. at at 17).

"Generally, a party seeking to invalidate a patent as obvious must demonstrate 'by clear and convincing evidence that a skilled artisan would have been motivated to combine the teaching of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698, 706-707 (Fed. Cir. 2012) (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)); *see also Amgen, Inc. v. F. Hoffman–LA Roche Ltd.*, 580 F.3d 1340, 1362 (Fed. Cir. 2009) ("An obviousness determination requires that a skilled artisan would have perceived a reasonable expectation of success in making the invention in light of the prior art." (citations omitted)). "The Supreme Court has warned, however, that, while an analysis of any teaching, suggestion, or motivation to combine known elements is useful to an obviousness analysis, the overall obviousness inquiry must be expansive and flexible." *OSRAM*, 701 F.3d at 707.

Obviousness may be based on any of the alleged prior art references or a combination of the same, and what a person of ordinary skill in the art would understand based on his knowledge and said references. If all of the elements of an invention are found, then:

> a proper analysis under § 103 requires, inter alia, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. *Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure.*

Velander v. Garner, 348 F.3d 1359, 1363 (Fed. Cir. 2003) (emphasis added) (internal citations omitted).

The critical inquiry in determining the differences between the claimed invention and the prior art is whether there is a reason to combine the prior art references. *See C.R. Bard v. M3 Sys.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998). For example:

> *[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art*. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, *it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered*, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 418-19 (2007) (emphasis added). The Federal Circuit case law previously required that, in order to prove obviousness, the patent challenger must demonstrate, by clear and convincing evidence, that there is a "teaching, suggestion, or motivation to combine. The Supreme Court has rejected this "rigid approach" employed by the Federal Circuit in *KSR Int'l Co. v. Teleflex Inc.*, 500 U.S. 398, 415 (2007). The Supreme Court stated:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. Sakraida and Anderson's-Black Rock are illustrative–a court must ask whether the improvement is more than the predictable use of prior art elements according to their established function.
>
> Following these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement. Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands

> known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicitly. See *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusions of obviousness"). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.
>
> [. . .]
>
> The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advance that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.

KSR, 550 U.S. at 417-419. The Federal Circuit has harmonized the KSR opinion with many prior circuit court opinions by holding that when a patent challenger contends that a patent is invalid for obviousness based on a combination of prior art references, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success in doing so." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007)(citing *Medichem S.A. v. Rolabo S.L.*, 437 F.3d 1175, 1164 (Fed. Cir. 2006)); *Noelle v. Lederman*, 355 F.3d 1343, 1351-52 (Fed. Cir. 2004); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1121 (Fed. Cir. 2000) and *KSR*, 550 U.S. at 416 ("a combination of elements 'must do more than yield a predictable result'; combining elements that work together 'in an unexpected and fruitful manner' would not have been obvious"). Further, a suggestion to combine need not be express and may come from the prior art, as filtered through the knowledge of one skilled in the art. *See Certain Lens-Fitted Film Pkgs.*, Inv. No. 337-TA-406, Order No. 141 at 6 (May 24, 2005).

"Secondary considerations," also referred to as "objective evidence of non-obviousness," must be considered in evaluating the obviousness of a claimed invention, but the existence of such evidence does not control the obviousness determination. *Graham*, 383 U.S. at 17-18. A court must consider all of the evidence under the *Graham* factors before reaching a decision on obviousness. *Richardson-Vicks Inc.*, 122 F.3d at 1483-84. Objective evidence of non-obviousness may include evidence of the commercial success of the invention, long felt but unsolved needs, failure of others, copying by others, teaching away, and professional acclaim. *See Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 894 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 857 (1984); *Avia Group Int'l, Inc. v. L.A. Gear California*, 853 F.2d 1557, 1564 (Fed. Cir. 1988); *In re Hedges*, 783 F.2d 1038, 1041 (Fed. Cir. 1986); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565 (Fed. Cir. 1986), *cert. denied*, 479 U.S. 1034 (1987). The burden of showing secondary considerations is on the patentee and, in order to accord objective evidence substantial weight, a patentee must establish a nexus between the evidence and the merits of the claimed invention; a *prima facie* case is generally set forth "when the patentee shows both that there is commercial success, and that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the patent." *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995); *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988), *cert. denied*, 488 U.S. 956 (1988); *Certain Crystalline Cefadroxil Monohydrate*, Inv. No. 337-TA-293, Comm'n Op. (March 15, 1990). Once a patentee establishes nexus, the burden shifts back to the challenger to show that, *e.g.*, commercial success was caused by "extraneous factors other than the patented invention, such as advertising, superior workmanship, etc." *(Id.)* at 1393.

Generally, a prior art reference that teaches away from the claimed invention does not create *prima facie* case of obviousness. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994; *Certain Rubber Antidegradants*, Inv. No. 337-TA-533 (Remand), Final ID (Dec. 3, 2008) (stating, "*KSR* reaffirms that obviousness is negated when the prior art teaches away from the invention.")). However, the nature of the teaching is highly relevant. *Id.* "A reference may be said to *teach away when* a person of ordinary skill, upon reading the reference, would be *discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant*." *Id.* (emphasis added). For example, "a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *Id.*

The Federal Circuit has recently explained, moreover, that the obviousness inquiry requires examination of all four Graham factors. *E.g.*, *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1375 (Fed. Cir. 2012). Indeed, courts must consider all of the Graham factors prior to reaching a conclusion with respect to obviousness. *In re Cyclobenzaprine Hydrochloride Extended–Release Capsule Patent Litig.*, 676 F.3d 1063, 1076–77 (Fed. Cir. 2012) (collecting cases). At all times, the burden is on the defendant to establish by clear and convincing evidence that the patent is obvious. *Id.* at 1077–78.

B. '471 Patent

Respondents argue that all of the asserted claims of the '471 Patent are invalid under 35 USC §§ 102 and/or 103 in view of U.S. Patent No. 7,050,143 to Silverbrook; U.S. Patent No. 5,687,376 to Celi ("Celi") and the Windows 95 System. (RIB at 69-78.)

1. Silverbrook

Respondents argue that using FlashPoint's claim constructions, all asserted claims of the '471 Patent are either anticipated by or rendered obvious in view of Silverbrook or rendered obvious by Silverbrook in view of the "Digital Photography Clicks" article by Brian Dipert ("Dipert") . (RIB at 69.) Respondents argue that the system disclosed in Silverbrook implemented scripts; performed image processing tasks in the CPU (which uses software), in the VLIW processor (which uses a combination of hardware/software), or using a combination of the two. (RIB at 69.) Respondents argue that Silverbrook was one of the references asserted against the '471 Patent in reexamination and that in order to overcome two rejections, FlashPoint insisted that the '471 Patent used the term "processing mode" to mean "the form, or type, of architecture used by the image processing subsystem – not the function, or program, provided by the image processing subsystem." (RIB at 70.) As a result, the examiner issued a reexamination certificate. (RIB at 70.) Respondents argue that FlashPoint now argues for a different definition, construing "processing mode" as "hardware and/or software configuration for image processing," and argues that there "are many possible processing modes for each architecture type." Respondents argue that if this new construction of "processing mode" is adopted by the ALJ, Silverbrook anticipates the '471 Patent for the same reasons discussed by the examiner. (RIB at 70-71.)

Respondents assert that FlashPoint has only contested that Silverbrook does not meet the following limitations: 1) a data structure corresponding to said processing mode and 2) data structure providing an interface, such that said operating system is independent of said processing mode used by said image processing subsystem. (RIB at 71.) Respondents then set forth how Silverbrook disclosed a data structure corresponding to the processing mode (buffers that correspond to the processing mode) and a data structure providing an interface (different Vark scripts to use the combination hardware/software VLIW, the software run by the CPU, or both, while using the same operating system). (RIB at 71-72.)

FlashPoint argues that Respondents' arguments that rely on the same arguments already rejected by the USPTO during reexamination must fail. (CRB at 35.) FlashPoint further argues that Silverbrook does not contemplate multiple image processing modes with different data structures for each mode, but instead discloses the ability to switch between and image processing function and a non-image processing function. (CRB at 36.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence that the '471 Patent is anticipated or obvious in light of Silverbrook or obvious in light of Silverbrook and Dipert. Silverbrook was already considered by the Examiner during reexamination of the '471 Patent so Respondents carry a particularly heavy burden. *See Impax Labs., Inc. v. Aventis Pharm., Inc.*, 468 F.3d 1366, 1378 (Fed. Cir. 2006) ("When the prior art was before the examiner during prosecution of the application, there is a particularly heavy burden in establishing invalidity."). The ALJ finds that Respondents have failed to meet this heavier burden in several ways. First, Respondents provide no element by element analysis of Silverbrook and instead simply state that "if FlashPoint's construction of processing mode was adopted, Silverbrook anticipates the '471 patent for the same reasons discussed by the examiner."

RIB at 70-71. Clearly, this does not meet the clear and convincing standard as it simply refers the ALJ back to the reexamination. In addition, Respondents provided not analysis whatsoever as to how Silverbrook and Dipert render the asserted claims of the '471 Patent obvious. Respondents' only reference to Dipert occurs on page 69 of its initial post hearing brief and there is no mention of Dipert in their reply brief (*see* RRB at 27-28.). Thus, the ALJ finds that Respondents have failed to show that the '471 Patent is obvious in light of this combination. In a similar manner, Respondents also fail to set forth any arguments as to how Silverbrook renders the '471 Patent obvious. Again, the only mention of Silverbrook rendering the '471 Patent obvious is on page 69 of its initial post hearing brief – there is no further analysis in the remainder of its brief. Consequently, the ALJ finds that Respondents have clearly failed to show by clear and convincing evidence that the '471 Patent is anticipated and/or obvious in light of Silverbrook and Dipert.

Moreover, even assuming that Respondents meager attempts at invalidation were somehow sufficient, they are also prefaced on FlashPoint's construction of "processing mode." (*See* RIB at 69-72.) As set forth *supra* in Section IV.B.4, the ALJ rejected FlashPoint's construction. As such, Respondents' arguments fail for that reason as well.

2. Celi

Respondents argue that Celi anticipates claim 1 of the '471 Patent. (RIB at 72.) Respondents argue that Celi disclosed a computer system that supports a plurality of graphics processing subsystems that could be implemented without special programming through the use of a series of modules, including a Video Manager, one or more translation modules and a memory buffer, that were placed between the operating system and the graphics processing subsystems to allow the selection, update and/or interchange of different graphics processing subsystems without any changes to the operating system. (RIB at 72.) Respondents argue that Celi also disclosed a system bus and a CPU coupled to the system bus; an image processing subsystem (IPS) that included filters, device drivers, graphics adapters, and a graphics library and performed various image processing functions such as mixing foreground and background colors, performing raster operation, and performing color translation. (RIB at 72-73.) The IPS could be a mixed hardware/software architecture or a purely hardware architecture.

Respondents argue that the Examiner incorrectly applied the definition of "image processing" from the *Microsoft Computer Dictionary* in concluding that Celi failed to disclose an IPS. Respondents assert that rhe graphics adapters, filters, device drivers, and graphics library disclosed in Celi performed the very image processing operations defined by the *Microsoft Computer Dictionary*. Respondents further assert that Celi disclosed a main memory coupled to the system bus and that included portions of the OS; the translation modules and the video manager, individually or collectively; and a flexible architecture (the ability to support a variety of hardware and/or software architecture for image processing) that allowed the OS to be independent of the processing mode of the IPS. (RIB at 73-74.) Respondents assert that also Celi disclosed representative data structures and a frame buffer that is a part of the main memory and is dedicated exclusively for storing the processed data for display. (RIB at 73-74.)

FlashPoint argues that Respondents' argument regarding Celi must fail because the examiner already considered this reference during reexamination and found that it did not invalidate the claims of the '471 Patent. (CRB at 36.) FlashPoint further argues that Respondents' arguments relating to the examiner's definition of "image processing subsystem" is unsupported by their own expert's testimony. (CRB at 36-37.) FlashPoint further argues that regardless of which claim construction is adopted, Respondents' expert testified that Celi does not disclose an image processing subsystem. (CRB at 37.) FlashPoint further asserts that Celi fails to disclose a data structure comprising a plurality of buffers for managing image data. (CRB at 37.)

As set forth *supra* in Section IV.B4, the ALJ adopted Respondents' claim construction for "image processing subsystem." As such, Respondents' arguments are inapposite as they rely on using FlashPoint's claim construction. Moreover, even if the ALJ were to consider Respondents' arguments, they suffer from the same flaws set forth *supra* in Section VI.B.2 related to Silverbrook, namely that they lack an element by element analysis. Respondents merely list the elements of the claims and conclusorily state that Celi contains such an element. *See* RIB at 72-74.

3. Windows 95

Respondents argue that the asserted claims of the '471 Patent are anticipated or rendered obvious by the Windows 95 System, under FlashPoint's claim constructions. (RIB at 74-78.) Respondents argue that the Windows 95 System was typical of conventional computer systems at that time, which allowed functionality to be implemented in hardware or software without changing the operating system, rendering the operating system independent of underlying functionality through the use of data structures. (RIB at 74-75.) Respondents assert that the Windows 95 System is prior art under at least 35 U.S.C. §§ 102(a) and 102(b) because its components were manufactured, sold, and known by others well before January 28, 1999, which is the alleged conception date of the '471 patent. (RIB at 75.)

Respondents argue that the Windows 95 System discloses a system for processing image data in a digital image device. (RIB at 76.) The Windows 95 System a main system bus as well as one or more I/O buses; a central processing unit; an image processing subsystem; and associated software for capturing, processing, and storing images. (RIB at 76-77.) The image processing subsystem was coupled to the CPU over the PCI bus in the Windows 95 System, and processed image data using hardware or software. (RIB at 76-77.)

Respondents argue that the Windows 95 System anticipates claim 1 because it had a memory unit coupled to the bus, which stored an operating system; a data structure in the memory unit in accordance with claim 1 where image frames were placed into the memory unit for further processing; the data structure provided an interface between the operating system and the image processing subsystem which allowed the operating system to be independent as illustrated by changing the capture cards without modifying the Windows 95 operating system software; and a disclosed a storage element for storing captured images. (RIB at 76-77.) Respondents assert that the Windows 95 System anticipates Claim 2 because it captured images from an NTSC video input source, and thus was a digital camera. (RIB at 77.) The Windows 95 System anticipates Claim 4 because in the Windows 95 System as data was being transferred from the BT-848 device on the Intel card to the image buffers in memory and the DMA controller, PCI bus master, and pixel data FIFO can each be spooler elements. (RIB at 77.)

The ALJ finds Respondents' failed to show by clear and convincing evidence that the '471 Patent is anticipated or obvious in view of the Windows 95 System. First, as with Celi, Respondents' arguments rely on adopting FlashPoint's claim construction. Since the ALJ did not adopt FlashPoint's claim construction, Respondents' arguments are inapposite. Furthermore, Respondents' arguments suffer from the same flaw as their previous arguments, namely that it is lacking in an element by element analysis and conclusorily states that the Windows 95 System discloses an element. In addition, Respondents' entire obviousness argument consists of a single sentence, *i.e.*, "[t]he Windows 95 System also rendered obvious claims 1-5 and 8 of the '471 Patent." RIB at 78. The ALJ finds that none of these arguments rises to the level of clear and convincing evidence.

C. '190 Patent

Respondents argue that the asserted claims of the '190 Patent are invalid under 35 USC §§ 102 and 103 in view of 5 separate prior art references. (RIB at 125-137.) Respondents further argue that the asserted claims of the '190 Patent are invalid under 35 USC § 103 in view of the IBM PalmTop PC 110, Canon CE 300 and the WebWizard. (RIB at 138-140.)

1. Saito

Respondents argue that the asserted claims of the '190 patent would have been anticipated or rendered obvious by Japanese Laid-Open Patent Application No. H09-298678 to Kazu Saito (Saito). (RIB at 125.) Respondents argue that Saito is prior art as it was filed on April 26, 1996 and published on November 18, 1997. (RIB at 125.)

Respondents argue that Saito discloses each and every limitation of claim 13 under either parties' proposed constructions. (RIB at 126.) Respondents further argue that to the extent that any element of claim 13 of the '190 patent is not found explicitly or inherently in Saito, the asserted claims of the '190 patent would have been obvious to one of ordinary skill in the art. (RIB at 125.) Respondents argue that Saito is sufficient to enable one of ordinary skill in the art to practice the claims of the '190 patent. (RIB at 125.)

Respondents argue that Saito discloses the two elements in dispute, namely "in response to the user performing the specific operations, automatically updating the interactive instructions " and "transferring the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device." (RIB at 126-127.) Respondents argue that Saito discloses the "in response to the user performing the specific operations, automatically updating the interactive instructions" element when after inputting a series of characters, and the only way for the camera to know that the user has finished entering characters is for the user to press the start switch. (RIB at 126-127.) According to Respondents, pressing the start switch is an integral part of how a user responds to an instruction such as "Input: Reference Number." (RIB at 126.) This is similar to FlashPoint's own camera technology that requires the camera to wait for the user to indicate through pushing a button that it has finished entering the name. (RIB at 127.)

As for "transferring the information captured from the user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device," Respondents argue that Saito expressly discloses the creation of a new relation file on the camera, and that this relation file contains text, image(s), and layout information that satisfies the "formatted document" element. (RIB at 127.)

Respondents argue that Saito discloses each and every element of claim 13 and proceed to list the elements of claim 13 and point to a corresponding element in Saito. (RIB at 129-131.)

FlashPoint argues that Saito does not anticipate or render obvious claim 13 of the '190 Patent. (CIB at 117.) FlashPoint argues that Saito fails to disclose "in response to the user performing the specific operations, automatically updating/update the interactive instructions" and "transferring/transfer the information capture from user to a formatted document, wherein the formatted document is formatted in accordance with a predefined model, such that the formatted document is automatically generated by the hand-held digital imaging device." (CIB at 118-120) Specifically, FlashPoint argues that the pressing of the start switch in Saito does not meet the limitation of "in response to the user performing the specific operations, automatically updating the interactive instructions" because Saito's instructions are unchanged until the user presses the start switch and does not disclose any instruction displayed on the screen prompting the user to press the start switch after inputting characters. (CIB at 118-119.) FlashPoint argues Saito also fails to disclose the "transferring/transfer the information capture from user to a formatted document…" because the file in Saito relied upon by Respondents merely discloses populating a pre-formatted database and does not provide instruction on how the information contained therein is formatted for display. (CIB at 119-120.) FlashPoint further argues that Saito is cumulative of a reference that was considered by the PTO, namely Kazuaki Ide, COLOR ZAURUS, Softbank Mook, Sharp KK ("Zaurus"). (CIB at 120-121.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence the '190 Patent is anticipated or obvious in view of Saito. As with Respondents' previous invalidity arguments, the ALJ finds Respondents' analysis lacking. Respondents provide no analysis or arguments as to how the '190 Patent is obvious in view of Saito except for the single conclusory sentence that "[t]o the extent that any element of the asserted claims of the '190 patent is not found explicitly or inherently in Saito, the asserted claims of the '190 patent would have been obvious to one of ordinary skill in the art." (RIB at 125.) Clearly, this does not meet the clear and convince standard, let alone constitute a valid argument.

While Respondents' anticipation arguments in this instance are slightly better as they set out each element of claim 13 in its arguments, the actual analysis for each element fails to meet the clear and convincing standard – rather Respondents conclusorily state that certain features satisfy the elements of the claim. For example, Respondents state:

> - Saito discloses limitation "adapted to capture information from the user," describing how, when the camera executes the script to provide instruction to the user, the sequence of interactive instruction is adapted to capture information such as a reference number and a comment from the user. RX-1084.4C at A171; RX-1264, [0016], [0019], figs 6-15.

RIB at 130. Respondents simply restate the claim element "adapted to capture information from the user" in describing the features of Saito ("the sequence of interactive instruction is adapted to capture information…from the user.").

Even assuming that Respondents' arguments suffice, the ALJ finds that Saito fails to disclose "in response to the user performing the specific operations, automatically updating/update the interactive instructions, such that a user is guided through a sequence of interactive instructions adapted to capture information from the user." Respondents argue that Saito meets the first limitation when it requires that the user input a series of characters and then press the start switch. (RIB at 126-128.) Respondents assert that the hard key start switch in Saito is the same as the softkey in the '190 Patent. (RIB at 127.) The ALJ finds that this sequence in Saito fails to meet the "in response to the user performing the specific operations, automatically updating/update the interactive instructions, such that the user is guided through a sequence of the interactive instructions adapted to capture form the user" limitation. As set forth above, the ALJ found that FlashPoint clearly and unmistakably disclaimed the embodiment that when a form is presented to the user with multiple fields that form alone is not an interactive instruction. (*See supra* Section IV.C.2.) Thus, the sequence that Saito prompts is of the same type of forms specifically disclaimed by the applicant during reexamination. (JX-0012.06186; RX1264__0015.)

Thus, the ALJ finds that Respondents have failed to show by clear and convincing evidence that Saito either anticipates or renders obvious claim 13 of the '190 Patent.

2. Creamer

Respondents argue that the asserted claims of the '190 Patent would have been anticipated or rendered obvious by U.S. Provisional Patent Application to Creamer et al. (Creamer) under FlashPoint's claim construction. (RIB at 131-133.) Respondents argue that Creamer discloses a hand-held digital camera capable of connecting to the internet and sending MIME-formatted E-Mails that include images stamped with time, date, and/or message information. (RIB at 131.) Respondents argue that under FlashPoint's construction, which includes "pre-defined model", Creamer discloses a formatted document that is formatted according to a predefined model—the MIME-formatted E-mail messages that include images as well as text. (RIB at 133.)

As set forth *supra* in Section IV.C.4, the ALJ declined to adopt FlashPoint's claim construction and, instead, construed "predefined model" to mean a "pre-existing set of commands that aid the automatic generation of the document and control of the formatting of a document as it is being generated, thereby determining the appearance of the formatted document." Consequently, Respondents' arguments relating to Creamer are inapposite to the extent they are based on the adoption of FlashPoint's claim construction.

3. Zaurus

Respondents argue that the asserted claims of the '190 Patent would have been anticipated or rendered obvious by the Color Zaurus reference ("Zaurus") under FlashPoint's constructions. (RIB at 136-137.) Respondents argue that under FlashPoint's infringement contentions a user's filling information into a message composition form infringes, which it exactly what Zaurus discloses. (RIB at 137-138.) Similarly, although FlashPoint claims that the ability to correcting errant characters one by one cannot be considered a "sequence of interactive instructions," FlashPoint apparently considers the mere ability to add slides one by one to constitute "a sequence of interactive instructions." (RIB at 137.) Respondents argue that FlashPoint cannot take one position for infringement and another for invalidity.

As set forth *supra* in Section V.C, the ALJ found that the accused products do not infringe the asserted claims of the '190 Patent. Specifically, the ALJ found that FlashPoint's infringement contentions relating to the accused products failed. Consequently, the ALJ finds Respondents' arguments inapposite to the extent they rely on FlashPoint's infringement contentions since the ALJ found those unpersuasive.

4. Parulski-963

Respondents argue that the asserted claims of the '190 patent are anticipated or obvious in view of U.S. Provisional Patent Application 60/037,963 to Parulski ("Parulski-963"). (RIB at 134-136.) Respondents argue that Parulski-963 discloses a digital camera with an LCD that allows a user to create a "utilization file" (*e.g.*, for a print order) through a user interface and a system for allowing users to send E-mails including the utilization file as well as text and images. (RIB at 134.) Respondents argue Parulski-963 discloses guiding the user through information entry operations using interaction menus and that such menus are displayed on an LCD screen such that the user is able to select among options in the menus by using buttons on the digital camera. (RIB at 134.) Respondents assert that Parulski-963 discloses at least two types of formatted documents: the utilization file and sending an order to a photo service provider via E-mail, where such E-mail would include both text and the images to be processed and that to the extent that FlashPoint's infringement arguments are accepted for the accused products' MMS messages, then the same arguments would apply for Parulski-963. (RIB at 135-136.) In other words, if the MMS message is a "formatted document" while it is being composed, then the utilization file and the email order are also "formatted document[s]" under FlashPoint's own analysis. (RIB at 135-136.)

As set forth *supra* in Section V.C, the ALJ found that the accused products do not infringe the asserted claims of the '190 Patent. Specifically, the ALJ found that FlashPoint's infringement contentions relating to the accused products failed. Consequently, the ALJ finds Respondents' arguments inapposite to the extent they rely on FlashPoint's infringement contentions since the ALJ found those unpersuasive.

5. WebWizard

Respondents argue that the asserted claims of the '190 patent would have been obvious to one of ordinary skill in the art in view of the IBM PalmTop PC 110 and Canon CE 300, in combination with Web Wizard. (RIB at 138-140.) Respondents assert that this combination of prior art references discloses each and every element of the asserted claims. (RIB at 138-139.) Respondents argue that the motivation to combine these references lies in the specification of the '190 patent where it "acknowledges the problem with prior methods of publishing images captured by digital cameras being too cumbersome for an ordinary camera user and identifies the need 'to make the user's experience with the digital camera as intuitive and 'hassle-free' as possible' including not having to get the captured images off the camera in order to generate a formatted electronic document which references those images." (RIB at 139.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence that the asserted claims of the '190 Patent are obvious in view of the IBM PalmTop PC 110 and

Canon CE 300, in combination with Web Wizard. Respondents arguments amount to nothing more than conclusory statements and cursory analysis. For example, Respondents' entire element by element analysis is as follows:

> Specifically, Dr. Adam Porter opined that the asserted claims of the '190 patent describe a hand-held digital imagining device that executes a script. The device displays instructions to a user, receives and stores information the user provides in response to the displayed instruction, and transfers the information into a document containing text and images such as an HTML file, which is generated in a particular format and can be viewed by other devices. The patented subject matter sought is essentially identical to this prior art.

(RIB at 138.) Respondents merely restate the elements in narrative form. The ALJ finds that Respondents' alleged motivation to combine all of these references is similarly conclusory and vague, *e.g.*, Respondents list the problems set forth in the specification of the '190 Patent and then simply state that "there was a practical reason" to combine the prior art references. (RIB at 139.) Respondents merely restate the summary of invention – they do not provide any actual motivation to combine these references. *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1290 (Fed. Cir. 2006) ("The Court of Appeals for the Federal Circuit's and its predecessor's "motivation to combine" requirement likewise prevents statutorily proscribed hindsight reasoning when determining the obviousness of an invention.") (citing *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006), ("[T]he 'motivation-suggesting-teaching' requirement protects against the entry of hindsight into the obviousness analysis."); *In re Fridolph*, 30 CCPA 939, 942, 134 F.2d 414, 1943 Dec. Comm'r Pat. 350 (1943) ("[I]n considering more than one reference, the question always is: does such art suggest doing the thing the [inventor] did."). Respondents' arguments simply disclose the element(s) that each prior art reference discloses and conclusorily and summarily states that there would have been a motivation to combine these references. The ALJ finds that this fails to rise to the level of clear and convincing evidence.

D. '538 Patent

1. Obvious in view of Thurlo, Branson, the APA, Gough, and Small

Respondents argue that claims 1 and 19 of the '538 Patent are obvious in light of U.S. Patent No. 5,835,772 to Thurlo ("Thurlo"); U.S. Patent No. 5,740,801 to Branson ("Branson"); the "Admitted Prior Art" or "the APA", which Respondents assert is "hand-held digital cameras with integrated display," (collectively, the "reexamination prior art" or "RPA") combined with U.S. Patent No. 5,638,504 to Gough ("Gough") and U.S. Patent No. 5,898,434 to Small ("Small"), which were not before the PTO during reexamination. (RIB at 159-160.)

Specifically, Respondents argue that the "overlay bar" limitation, which FlashPoint added during the reexamination to obtain allowance, was the innovative feature over the RPA. (RIB at 161.) Respondents argue that the Examiner failed to note that the "overlay bar" was already disclosed in the prior art and would have been obvious to one of ordinary skill in the art. (RIB at 161.) Respondents argue that the "overlay bar" was a well-known technique as evidenced in numerous prior art references, including Branson, Gough and Small. (RIB at 161.) Specifically, Gough teaches overlaying information over a base image in a graphical user interface. (RIB at 161.) Small teaches using a horizontal overlay bar that displays icons in a graphical user interface for a small screen. (RIB at 162.)

Respondents argue that the combination of RPA alone or in combination with both or either Small or Gough renders claim 1 obvious. (RIB at 162-163.) Respondents assert that the motivation to combine "exists in a desire to have the portability and convenience of an LCD screen acting as a live viewfinder in which the user can preview before taking a picture" and "to display the 'interactive instructions' taught by Branson on the LCD screen." (RIB at 162.) As for Gough and Small, Respondents argue that the motivation to combine the RPA with either of these two references due to the screen size limitation of the digital cameras and that the use of the overlay technique in Gough and Small would be used with the RPA based on the teachings in Branson, which taught prompting through a "graphical object or a text clue imposed on the displayed image." (RIB at 163.)

FlashPoint argues that Respondents have failed to meet the increased burden of showing that the claims are obvious in light of the cited prior art references because they were considered by the Examiner during the reexamination and were allowed over those references. (CRB at 74.) FlashPoint further argues that the combination of the references cited by Respondents fails to teach all the elements of the asserted claims. (CRB at 75.) Specifically, FlashPoint argues that Thurlo and the APA merely teach a hand held digital camera that stores program instructions; Branson is a personal computer system that teaches adding annotation overlay images to images that have already been captured (not those in the process of being captures); Small merely resizes the image and does not disclose any instructions; and Gough merely teaches overlaying one image on top of another in a computer system. (CRB at 75-76.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence that Thurlo, Branson, the APA, Small and Gough collectively or in varying combinations renders claims 1 and 19 obvious. First, as FlashPoint correctly notes, Respondents carry a particularly heavy burden since Thurlo, Branson and the APA were considered by the Examiner and also allowed over those specific references during reexamination. *See Impax Labs., Inc. v. Aventis Pharm., Inc.*, 468 F.3d 1366, 1378 (Fed. Cir. 2006) ("When the prior art was before the examiner during prosecution of the application, there is a particularly heavy burden in establishing invalidity.").

The ALJ finds that Respondents have failed to meet that heavy burden with its conclusory statements and cursory analysis. For example, Respondents summarily state that the Examiner overlooked the existence of the overlay bar in the prior art and that it would have been obvious to one of ordinary skill in the art without any explanation. *See* RIB at 161. However, as Respondents themselves note, the overlay bar was disclosed in Branson – a prior art reference specifically considered by the Examiner. Respondents fail to explain this contradiction – either the Examiner considered the overlay bar since it was disclosed in Branson or the Examiner did not. Similarly, Respondents' alleged motivation to combine all of these references is similarly conclusory and vague, *e.g.*, "[o]ne of ordinary skill would also have been motivated to display 'interactive instructions' taught by Branson on the LCD screen of the digital camera of Thurlo and the APA to direct a user to perform a directed image capture sequence." *See* RIB at 162. Respondents merely restate the summary of invention – they do not provide any actual motivation to combine these references. *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1290 (Fed. Cir. 2006) ("The Court of Appeals for the Federal Circuit's and its predecessor's "motivation to combine" requirement likewise prevents statutorily proscribed hindsight reasoning when determining the obviousness of an invention.") (citing *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006), ("[T]he 'motivation-suggesting-teaching' requirement protects against the entry of hindsight into the obviousness analysis."); *In re Fridolph*, 30 CCPA 939, 942, 134 F.2d 414, 1943 Dec. Comm'r Pat. 350 (1943) ("[I]n considering more than one reference, the question always is: does such art suggest doing the thing the [inventor] did."). The lack of any actual motivation to combine is all the more noticeable with regard to Branson since the evidence shows that it would be undesirable to have overlay bars imposed *during* image capture since it would obscure the image the surgeon was attempting to acquire. (CX-0743 Q&A 276.)

Respondents again fail to explain this contradiction. Moreover, given that Respondents' combination includes 5 different prior art references, a thorough explanation of the motivation to combine these varying prior art references is all the more necessary. Respondents' arguments simply disclose the element(s) that each prior art reference discloses and conclusorily and summarily states that there would have been a motivation to combine these references. The ALJ finds that this fails to rise to the level of clear and convincing evidence, let alone meeting the heavier burden imposed on Respondents since Thurlo, the APA and Branson were all considered by the Examiner during reexamination and the claims allowed.

As for claim 19, Respondents argue that since it is similar to claim 1, with the exception of the additional translucent overlay bar, it is obvious for the same reasons. (RIB at 164-165.) Respondents argue that the translucent overlay bar is disclosed in Branson (which discloses partly transparent overlays with annotations) and in Gough (which discloses use of translucency to display overlay eleemnts). (RIB at 165.) Respondents further argue that Gough teaches that the use of a translucent overlay expands the useful area of a limited size screen. (RIB at 165.) According to Respondents, "[a] skilled artisan would have been motivated to employ either Branson's or Gough's translucent overlay displaying techniques on an integrated display of the of the digital camera as taught in Thurlo in view of the APA. (RIB at 165.)

The ALJ finds that Respondents arguments for claim 19 fail for the same reason that they do for claim 1 and, consequently, Respondents have failed to show by clear and convincing evidence that claim 19 is obvious in view of Branson, Thurlo, the APA, Gough and Small. As for Respondents' argument relating to translucency, the ALJ finds those unpersuasive as well for the same reasons set forth above relating to claim 1 – Respondents arguments are conclusory in nature and lacking in any sort of thorough analysis. Such a cursory argument fails to rise to the level of clear and convincing evidence.

2. Obvious in view of Takiguchi, the APA, and Miller

Respondents argue that claims 1 and 19 would have been obvious in view of U.S. Patent No. 6,243,103 to Takiguchi ("Takiguchi"), U.S. Patent No. 6,147,703 to Miller ("Miller") and the APA. (RIB at 166.) Takiguchi discloses a system comprising a digital camera and a personal computer for prompting a user to capture panoramic images and synthesizing the images. (RIB at 166.). Miller discloses a user interface for a digital camera for capturing and reviewing images as well as providing interaction with the camera user. (RIB at 166.) Specifically, Respondents argue that, in addition to the integrated display in digital camera disclosed by the APA, Takiguchi discloses a panoramic image capturing-synthesizing system comprised of a digital camera and a personal computer; executing the application software on the operating system to perform a sequence of image capture operations; displaying a sensed image and a shutter button icon, for prompting a user to perform a first operation; displaying a second sensed image at a relative position with respect to the first sensed image in response to a user's pressing of a shutter button icon and informing a user how to move a camera and when to press the shutter button to obtain a second image. (RIB at 166-167.) Respondents further argue that Miller discloses displaying a graphical representation in the form of an overlay bar on an integrated display of a digital camera where the graphical representation may be displayed in a manner that does not obscure the presented image and the overlay bar can be automatically updated in response to the user's interactive instructions. (RIB at 167.)

Respondents argue that there is a motivation to combine these references "[b]ecause both Takiguchi and Miller relate to employing a digital camera to capture images and displaying interactive information on a screen to the user, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Takiguchi and Miller to present such interactive information to the user on an overlay bar, and to update the instructions by updating the overlay bar." (RIB at 167-168.)

FlashPoint argues that Respondents have failed to show by clear and convincing evidence that the combination of Takiguchi, Miller and the APA render claims 1 and 19 obvious. Specifically, FlashPoint argues that Takiguchi fails to disclose a directed image capture sequence or interactive instructions, fails to disclose overlay bars, and fails to disclose instructions stored on a non-portable personal computer. (CRB at 76-77.) FlashPoint argues that Miller fails to disclose overlay bars, interactive instructions, directed image capture sequence or interactive instructions. (CRB at 77.) FlashPoint asserts that Miller does not disclose an overlay bar because it does not show a bar lying on top of the image on the screen. (CRB at 77.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence that claims 1 and 19 are obvious in view of Takiguchi, Miller and the APA. While Respondents listed each of the elements disclosed by Takiguchi and Miller, their analysis again suffers from the same flaws as set forth *supra* in Section VI.D.1 namely that their statements are conclusory and lacking in any sort of detailed explanation or analysis. Moreover, Respondents have again failed to provide an adequate motivation to combine aside from merely restating the summary of the '538 invention ("[b]ecause both Takiguchi and Miller relate to employing a digital camera to capture images and displaying interactive information on a screen to the user, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Takiguchi and Miller to present such interactive information to the user on an overlay bar, and to update the instructions by updating the overlay bar") – they do not provide any actual motivation to combine these references. *Alza Corp.*, 464 F.3d at 1290 ("The Court of Appeals for the Federal Circuit's and its predecessor's "motivation to combine" requirement likewise prevents statutorily proscribed hindsight reasoning when determining the obviousness of an invention.").

The ALJ further finds that Takiguchi is directed to a system comprising a digital camera and a personal computer. (RX-1010; CX-0743C at Q&A 292-96.) Takiguchi states that "[i]in the system according to the following embodiment, an electronic camera as the image sensing means and a persona computer system (so-called PC system) as the image synthesizing means are separately arranged, and they are connected via SCSI interface." (RX-1010 at 4:24-29.)The '583 Patent is directed to a hand-held digital camera. As set forth *supra* in Section IV.D.2, the patentee's use of "hand-held digital camera" was key in overcoming the PTO's rejection. As the ALJ noted, the amendments were directed to portability, the ability to run and store the scripts on the device and having the display as an integral part of the device. *See supra* Section IV.D.2. Takiguchi requires the PC system, which is clearly separate, to perform the synthesis of the images into a panoramic system. (RX-1010 at 4:34-37.) The ALJ finds that Respondents have failed to explain how or why Takiguchi is different from the personal computer systems disclosed during prosecution that the applicants ultimately were able to traverse through amendment.

Thus, the ALJ finds that Respondents have failed to meet their burden of showing by clear and convincing evidence that claims 1 and 19 are obvious in view of Takiguchi, Miller and the APA.

3. Obvious in view of Takiguchi, the APA, Gough, and Small

Respondents argue that claims 1 and 19 would also have been obvious in view of Takaguchi, the APA, Gough and Small. (RIB at 168.) Respondents' entire argument relating to this combination relies on their previous arguments set forth *supra* and Respondents do not present any additional or new arguments. (RIB at 168-169.) For the same reasons those arguments failed *supra*, they also fail in this instance.

E. On Sale Bar

Under 35 U.S.C. § 102(b), a patent is invalid if the invention was offered for sale more than one year prior to the patent application filing date:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States

35 U.S.C. § 102(b). The Supreme Court established a two part test to determine whether on sale bar applies:

> [T]he on-sale bar applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial offer for sale. An inventor can both understand and control the timing of the first commercial marketing of his invention.
>
> Second, the invention must be ready for patenting. That condition may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.

Pfaff v. Wells Elecs, 525 U.S. 55, 67-68 (1998). An invention is reduced to practice when it works for its intended purpose. *Atlanta Attachment Co. v. Leggett & Platt, Inc.*, 516 F.3d 1361, 1366-1367 (Fed. Cir. 2008) (citations omitted). An invention is said to work for its intended purpose when there is a demonstration of its workability or utility. *Id.* (citations omitted). Respondents must show by clear and convincing evidence that the patented device was on-sale before such critical date. *EZ Dock v. Schafer Sys.*, 276 F.3d 1347, 1351 (Fed. Cir. 2002) (citations omitted).

Respondents argue that the '471, '190 and '538 Patents are invalid under the on sale bar. (RIB at 170.) [redacted]

FlashPoint argues that Respondents have failed to show by clear and convincing evidence that the asserted claims of the '471, '190 and '538 Patents are invalid under the on sale bar. (CIB at 170.) [redacted] FlashPoint argues, however, that Respondents have (1) failed to show that the claimed inventions were ready for patenting prior to their respective critical dates [redacted]

1. Commercial Offer for Sale

[redacted]

2. Ready for Patenting

The ALJ finds that Respondents have failed to show by clear and convincing evidence that the claimed inventions were ready for patenting. The reasons that Respondents' arguments fail for each individual patent will be discussed *infra* in the relevant section. Respondents' arguments also fail for reasons that are universal to their entire line of argument.

First, the ALJ finds that Respondents' arguments are lack the necessary detailed and specific analysis. Rather, many statements are conclusory in nature and do not rise to the clear and convincing standard, *e.g.*, "[t]he user interface document also disclose the use of translucent overlay bars." It is not clear whether the "transparent bar" disclosed in Figure 3 of RX-0311 is the same "translucent overlay bar" or "overlay bar" of the '538 Patent since there is no explanation or analysis accompanying Respondents' conclusory statements.

Even assuming that the ALJ were to accept Respondents' conclusory statements as true without any need for further explanation, the ALJ finds that FlashPoint is correct in that Respondents failed to show how commercial offers for sale relate to the '538, '471, and '190 Patents. [redacted] The ALJ finds that such a tenuous link fails to rise to the level of clear and convincing evidence. Moreover, the mere fact that certain features are described does not necessarily mean that the actual means of creating or using those features is the same as what is disclosed in the claimed invention. [redacted]

[redacted]

Rather, [redacted] However, Respondents do not explain how these separate documents created by different people for different purposes would all have come together to create the invention. There is no evidence that the inventors of the Asserted Patents reviewed, examined or even were aware of these documents. There is no evidence as to why one of ordinary skill in the art would look at all of the various documents to come up with a single invention. Respondents' arguments are, as FlashPoint describes, a "cobbl[ing] together" of various documents, without any articulated reason, to create their invention.

The mere fact that certain papers and contemporaneous documents mention the same features that are covered by the Asserted Patents does not necessarily mean that those features are the actual inventions claimed in the Asserted Patents. Moreover, the mere mention of those features does not rise to level of an enabling disclosure or evidence of reduction to practice. Given that there are various ways for a panoramic photograph to be captured, processed and displayed the mere mention of such a feature in the cited documents fails to rise to the level of clear and convincing evidence. Indeed, the mere mention of the feature does not disclose the inventions disclosed in the Asserted Patents. As FlashPoint correctly notes, the mere mention of certain features fails to disclose certain aspects of the actual invention claimed by the relevant claims of the asserted patents. (CRB at 80-82.)

[redacted] However, the ALJ finds that the mere citation to contemporaneous documents, without, at a minimum, any citations to any evidence as to whether the inventors actually had any knowledge or reviewed these documents to be unpersuasive. [redacted] For example, while there are six ALJs in the Office of Administrative Law Judges and all are tasked with addressing Section 337 investigations, the ALJ does not know what is transpiring the investigations of his other fellow ALJs. Absent some specific reason to seek such knowledge or some other mechanism for sharing such knowledge, *e.g.*, monthly meetings, the ALJ remains ignorant of what happens in those other investigations. Similarly, while all of these features are somewhat related, there is no evidence that the inventors or the authors of some of the contemporaneous documents were even aware of each other.

Finally, the ALJ would like to comment on Respondents innuendo in its reply brief. On page 82, Respondents argue that FlashPoint's alleged conception dates are incorrect based on the flawed investigation of one of FlashPoint's employees. (RRB at 82.) While such an argument is not problematic, the following statement from Respondents is:

> [redacted]

[redacted] The ALJ finds such an implication reflects less upon the witness and more upon the character and quality of counsel. [redacted] Indeed, this is not an instance of a paid expert witness or a potentially biased inventor – [redacted]

[redacted] The ALJ finds it extremely distasteful for Respondents counsel to impugn the integrity of an employee of a party to this investigation who was unwittingly drawn into this investigation. Again, this reflects less upon the witness and more upon the credibility and quality of Respondents' arguments.

a) The '538 Patent

Respondents argue that the asserted claims of the '538 Patent were ready for patenting prior to the critical date. (RIB at 174-177.) [redacted]

FlashPoint argues that the evidence Respondents rely upon are simply marketing requirement documents and design or mock-up images for the appearance of the device and do not enable one practice the claimed invention. (CRB at 89-90.) Similarly, Respondents reliance on a brief description of [redacted] also fails to explain how such a capture would be done as set forth in the '538 Patent. (CRB at 89.) FlashPoint further notes that the [redacted] FlashPoint argues that Respondents have simply "cobble[d] together" various documents and hypotheticals in an attempt to show that the '538 Patent was reduced to practice. (CRB at 90-91.)

The ALJ finds that Respondents have failed to show by clear and convincing evidence that the '538 Patent was reduced to practice prior to the critical date. As noted *supra*, the ALJ found serious flaws with Respondents arguments and supporting evidence. Even assuming, however, that the ALJ were to accept the evidence relied upon by Respondents, that Respondents' conclusory statements are sufficient, and that these documents had been considered by the inventors, the ALJ finds that Respondents have still failed to meet their burden of showing by clear and convincing evidence that the claims are invalid under the on sale bar.

Turning to the specific documents relied upon by Respondents, the ALJ finds that they fail to show that the inventions were ready for patenting before the critical date because they fail to adequately disclose certain aspects of the invention. [redacted]

Turning to the specific documents relied upon by Respondents, the ALJ finds that they fail to show that the inventions were ready for patenting before the critical date because they fail to disclose an enabling description. [redacted]

RX-311C also fails to disclose the "overlay bars" as disclosed by the '538 Patent. Specifically, the '538 Patent discloses an overlay bar or translucent overlay bar that displays interactive instructions and updated interactive instruction. ('538 Patent at claims 1 and 19.) [redacted]

Therefore, the ALJ finds that Respondents have failed to show by clear and convincing evidence that the '538 Patent was ready for patenting.

b) The '190 Patent

Respondents argue that the '190 Patent was ready for patenting prior to the critical date. (RIB at 177.) Specifically, Respondents rely on the same [redacted] for the '538 Patent and certain documents that describe the [redacted] in support of their argument. (RIB at 177-178.)

FlashPoint argues that the '190 Patent was conceived of around [redacted] which was after the April 13, 1997 critical date. (CRB at 86.) FlashPoint cites to an [redacted] that describes the idea embodied in the '190 Patent. (CRB at 86.) FlashPoint further argues that Respondents have failed to explain how the documents they have cited enable one of ordinary skill in the art to practice the invention claimed in the '190 Patent. (CRB at 87.) FlashPoint argues that some of the documents relied upon by Respondents simply describe "high-level ideas" and that other documents describing [redacted] fail to disclose certain features of the '190 Patent. (CRB at 87-88.) FlashPoint further argues that the '190 Patent was not reduced to practice until sometime after [redacted] (CRB at 88-89.)

The ALJ finds that Respondents have failed to prove by clear and convincing evidence that the '190 Patent was ready for patenting prior to the critical date. The ALJ finds that the evidence shows that the invention claimed in the '190 Patent was not conceived until after the critical date of April 13, 1997 – it was not conceived until [redacted]. (CX-0718.00001-2.) [redacted]

[redacted] As for the latter argument, the ALJ has already dismissed that argument as set forth *supra*. As for the Respondents' arguments relating to source code, the ALJ finds those unpersuasive as well. First, Respondents fail to point to any reason as to why source code prior to March 1997 should have been searched aside from the fact that perhaps, maybe, there may be something that could help Respondents show an earlier conception/reduction to practice date. Respondents point to no support that would warrant searching for source code at the earlier, *i.e.*, evidence that the inventors were working on or reviewing relevant source code prior to March 1997. In other words, the argument appears to boil down to: "FlashPoint did not do enough digging to help us find *some* sort of evidence." The ALJ declines to find FlashPoint at fault for failing to help Respondents with their fishing expedition.

Moreover, even assuming that FlashPoint (for some reason) should have searched for source code prior to March 1997, the ALJ finds that it is not clear how such evidence is relevant to the inquiry as to whether the invention of the '190 Patent was ready for patenting. There is no evidence linking the source code to the inventors – this argument suffers from the same flaws set forth *supra*, namely that Respondents ability to pull separate, unrelated documents for which there is no evidence that these documents were considered by the inventors or that the inventors were even aware of such documents is unpersuasive.

In addition, even assuming that the ALJ were to accept that the conception and reduction to practice dates occurred before the critical date, Respondents' arguments showing how the invention for the '190 Patent was ready for patenting fail for the same reason that they failed for the '538 Patent. Indeed, Respondents concede that the analysis for both patents is nearly identical so to the extent that the ALJ finds them unpersuasive for the '538 Patent, he finds them equally unpersuasive for the '190 Patent.

Therefore, the ALJ finds that Respondents have failed to show by clear and convincing evidence that the '190 Patent was ready for patenting prior to the critical date.

c) The '471 Patent

Respondents argue that the '471 Patent was ready for patenting prior to the critical date. (RIB at 180.) Respondents argue that the concept of abstraction of low-level hardware or software was known in the art [redacted] (RIB at 180-181.) Image processing subsystem features such as [redacted] were implemented in software and in hardware where the operating system was independent of whether [redacted] was implemented in hardware or software. (RIB at 181.) Respondents argue that [redacted] is an image analysis process within the definition of "image processing subsystem" in the '471 patent because the '471 patent defines "image processing subsystem" to include "analyzing and manipulating captured image data." (RIB at 181.) [redacted] Respondents further argue that one of the inventors declared that all features were "operable" in March 1996. (RIB at 182.) [redacted]

FlashPoint argues that that '471 Patent was conceived after the critical date of February 11, 1998 and that it was also not ready for patenting until after that date. (CRB at 83-86.) [redacted]

[redacted] FlashPoint argues that it was not even aware that its operating system would have issues with [redacted] until mid-1998. (CRB at 83-84.) FlashPoint further argues that one of the co-inventors drafted a document describing [redacted] which essentially describes the '471 Patent, in [redacted] – well after the critical date. (CRB at 84.) [redacted]

The ALJ finds that Respondents have failed to show by clear and convincing evidence that that '471 Patent was ready for patenting prior to the critical date. The ALJ finds that the evidence shows that the '471 Patent was not conceived until after [redacted]

[redacted]

Respondents' arguments against this evidence are similar to those for the '190 Patent and fail for the reasons set forth *supra*. Respondents also add that "[d]ocuments and source code created on or before March 1996, not considered by FlashPoint, rendered the claimed invention of the '471 Patent ready for patenting" and references a timeline demonstrative in their initial post-hearing brief. (RRB at 83.) The ALJ finds such a vague and conclusory statement to be utterly unpersuasive.

In addition, even assuming that the '471 Patent was conceived and reduced to practice prior to the critical date, the ALJ finds that Respondents have failed to prove by clear and convincing evidence that the '471 Patent is ready for patenting for the reasons set forth *supra*, namely that Respondents' arguments are conclusory and cursory and do not rise to the level of clear and convincing evidence.

VII. UNENFORCEABILITY[6]

Respondents argue that the '538 Patent and the '190 Patent are "unenforceable" for failure to name Ms. Dori Friend as an inventor. (RIB at 185-188.)

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[6] While Respondents have labeled this defense as "unenforceability" they do not appear to contend that the patent is unenforceable due to inequitable conduct for failure to join the proper inventors with deceptive intent. *See Advanced Magnetic Closures, Inc. v. Rome Fastener Corp.*, 607 F.3d 817, 828-32 (Fed. Cir. 2010) (explaining inequitable conduct and inventorship). Rather, they appear to contend that the patent is invalid under (pre-Leahy-Smith America Invents Act) 35 U.S.C. § 102(f) and because the Commission has no power to correct inventorship (under pre-AIA 35 U.S.C. § 256), the patent is unenforceable at the Commission.

"A person shall be entitled to a patent unless ... he did not himself invent the subject matter sought to be patented." 35 U.S.C. § 102(f) (2002). "Since the word 'he' refers to the specific inventive entity named on the patent, this subsection mandates that a patent accurately list the correct inventors of the claimed invention." *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1349 (Fed. Cir. 1998) (citations omitted). Section 116 of Title 35 of the United States Code states that "[w]hen an invention is made by two or more persons jointly, they shall apply for patent jointly." "There is a presumption that the inventors named on an issued patent are correct, so misjoinder of inventors must be proven by clear and convincing evidence." *Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1472 (Fed. Cir. 1997); *see also Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 980 (Fed. Cir. 1997) (stating that "[t]he burden of showing misjoinder or nonjoinder of inventors is a heavy one" (quoting *Garrett Corp. v. United States*, 422 F.2d 874, 880 (Cl. Ct. 1970))); *Price v. Symsek*, 988 F.2d 1187, 1191 (Fed.Cir.1993).

A person is "a joint inventor only if he contributes to the conception of the claimed invention." *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1359 (Fed. Cir. 2004) (citations omitted). "Conception is the touchstone of inventorship, and each joint inventor must contribute in some significant manner to the conception of the invention." *BJ Serv. Co. v. Halliburton Energy Serv., Inc.*, 338 F.3d 1368, 1373 (Fed. Cir. 2003) (citing *Burroughs Wellcome*, 40 F.3d at 1227-28. "Conception is the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is applied in practice." *BJ Serv.*, 338 F.3d at 1373 (citing *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994)). If a co-inventor contributed to the conception to even only one non-asserted claim, he is a joint inventor to the entire patent. *See Eli Lily*, 376 F.3d at 1361-62.

Conception "requires that the inventor appreciate that which he has invented." *Invitrogen Corp. v. Clontech Labs.*, 429 F.3d 1052, 1063 (Fed. Cir. 2005). Joint inventorship, therefore, arises only "when collaboration or concerted effort occurs—that is, when the inventors have some open line of communication during or in temporal proximity to their inventive efforts." *Eli Lilly*, 376 F.3d at 1359. Additionally, a joint inventor must:

> (1) contribute in some significant manner to the conception or reduction to practice of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art.

Pannu, 155 F.3d at 1351.

"Uncorroborated testimony alone cannot constitute clear and convincing proof." *BJ Serv. Co. v. Halliburton Energy Serv., Inc.*, 338 F.3d 1368, 1373 (Fed. Cir. 2003) (citing *Price*, 988 F.2d at 1194). What is required is "corroborating evidence of a contemporaneous disclosure that would enable one skilled in the art to make the invention." *Burroughs Wellcome Co. v. Barr Labs. Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994).

"Generally, in cases of nonjoinder, 35 U.S.C. § 256 affords a patentee the opportunity to correct inventorship on the patent." *Certain Liquid Crystal Display Devices and Products Containing the Same*, Inv. No. 337-TA-631, Initial Determination, at 51 n.10 (March 3, 2009). Thus, "[i]f the error occurred without deceptive intent and may be corrected, then non-joinder shall not invalidate the patent." *Id.* "However, correction of inventorship is not a possibility in this investigation because the administrative law judge does not have the authority to order correction of a patent." *Id.* (citing *Certain EPROM, EEPROM, Flash Memory, and Flash Memory Microcontroller Semiconductor Devices and Products Containing Same*, Inv. No. 337-TA-395, Order No. 69 (January 13, 2000)).

Respondents argue that the '538 Patent is unenforceable for failure to name Ms. Dori Friend as an inventor. (RIB at 185.) [redacted]

Respondents further argue that Ms. Friend's opinion that she is not in inventor is irrelevant since she is not an attorney. (RIB at 187.) Similarly, Respondents argue that Ms. Friends' testimony concerning the obviousness of the use of translucent bars is also irrelevant because translucency for editing pictures is different from translucency for the overlay bar. (RIB at 187.) Respondents also argue that the '190 Patent, which also claims translucent overlay bars, is unenforceable for also failing to name Ms. Friend as an inventor.

FlashPoint argues that Respondents have failed to show by clear and convincing evidence that Ms. Friend was omitted as an inventor. (CRB at 91.) FlashPoint argues that Respondents failed to address Ms. Friend's testimony that she did not perform any work on directed image capture sequences or hyper-text markup language document and does not consider herself to be a contributor to either the '538 Patent or the '190 Patent. (CRB at 91.) FlashPoint argues that Ms. Friend testified that she did not invent translucency and that it was well known in her field of art. (CRB at 91.) Moreover, FlashPoint notes that Ms. Friend testified that she could not recall whose idea it was to make the overlay bars translucent in one of the documents relied upon by Respondents and, consequently, such a document cannot meet the clear and convincing evidence standard. (CRB at 91-92.)

The ALJ finds that Respondents have failed to meet their burden of showing by clear and convince evidence that Ms. Friend should have been named as a co-inventor of the '538 and the '190 Patents. First, Ms. Friend's testimony relating to the prior existence of translucency and her assertion that she did not believe that she contributed to either invention cannot be summarily dismissed by Respondents without further explanation. (Tr. 916:22-918:20.) Even though Ms. Friend is not an attorney, she is still one of ordinary skill in the art in her field and, to the extent that she has provided any testimony relating to her field of art, such testimony cannot be summarily dismissed. In addition, the ALJ finds FlashPoint's arguments relating to RX-0018C to be persuasive as it shows that even Ms. Friend's own testimony reflects uncertainty surrounding that document. Such uncertainty fails to rise to clear and convincing evidence without more.

Moreover, Respondents point to no evidence that Ms. Friend was in regular communication with the inventors of either patent or that she even worked with any of the inventors on the '538 or the '190 inventions. *See Eli Lilly*, 376 F.3d at 1359 ("Joint inventorship, therefore, arises only 'when collaboration or concerted effort occurs—that is, when the inventors have some open line of communication during or in temporal proximity to their inventive efforts.'") Indeed, it appears that Ms. Friend did nothing more than "merely explain to the real inventors well-known concepts and/or the current state of the art," namely the use of translucency in her field of art. *Pannu*, 155 F.3d at 1351.

Therefore, the ALJ finds that Respondents have failed to show by clear and convince evidence that Ms. Friend should have been named a co-inventor on either the '190 or the '538 Patent.

VIII. DOMESTIC INDUSTRY

A. Applicable Law

In patent based proceedings under section 337, a complainant must establish that an industry "relating to the articles protected by the patent . . . exists or is in the process of being established" in the United States. 19 U.S.C. § 1337(a)(2). Under Commission precedent, the domestic industry requirement of Section 337 consists of a "technical prong" and an "economic prong." *Certain Data Storage Systems and Components Thereof*, Inv. No. 337-TA-471, Initial Determination Granting EMC's Motion No. 471-8 Relating to the Domestic Industry Requirement's Economic Prong (unreviewed) at 3 (Public Version, October 25, 2002) The "economic prong" of the domestic industry requirement is satisfied when the economic activities set forth in subsections (A), (B), and/or (C) of subsection 337(a)(3) have taken place or are taking place with respect to the protected articles. *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Commission Op. at 25 (February 17, 2011) ("*Printing and Imaging Devices*"). With respect to the "economic prong," 19 U.S.C. § 1337(a)(2) and (3) provide, in full:

> (2) Subparagraphs (B), (C), (D), and (E) of paragraph (1) apply only if an industry in the United States, relating to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established.

> (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned–
>
> (A) significant investment in plant and equipment;
>
> (B) significant employment of labor or capital; or
>
> (C) substantial investment in its exploitation, including engineering, research and development, or licensing.
>
> *Id.*

Given that these criteria are in the disjunctive, satisfaction of any one of them will be sufficient to meet the domestic industry requirement. *Certain Integrated Circuit Chipsets and Products Containing Same*, Inv. No. 337-TA-428, Order No 10 at 3, Initial Determination (Unreviewed) (May 4, 2000), citing *Certain Variable Speed Wind Turbines and Components Thereof*, Inv. No. 337-TA-376, Commission Op. at 15, USITC Pub. 3003 (Nov. 1996). The Commission has embraced a flexible, market-oriented approach to domestic industry, favoring case-by-case determination "in light of the realities of the marketplace" that encompass "not only the manufacturing operations" but may also include "distribution, research and development and sales." *Certain Dynamic Random Access Memories*, Inv. No. 337-TA-242, USITC Pub. 2034, Commission Op. at 62 (Nov. 1987) ("*DRAMs*").

To meet the technical prong, the complainant must establish that it practices at least one claim of the asserted patent. *Certain Point of Sale Terminals and Components Thereof*, Inv. No. 337-TA-524, Order No. 40 (April 11, 2005). The test for claim coverage for the purposes of the technical prong of the domestic industry requirement is the same as that for infringement. *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003); *see also Certain Doxorubicin and Preparations Containing Same*, Inv. No. 337-TA-300, Initial Determination at 109 (U.S.I.T.C., May 21, 1990) ("*Certain Doxorubicin*"), *aff'd*, Views of the Commission at 22

(October 31, 1990). "First, the claims of the patent are construed. Second, the complainant's article or process is examined to determine whether it falls within the scope of the claims." *(Id.)* As with infringement, the first step of claim construction is a question of law, whereas the second step of comparing the article to the claims is a factual determination. *Markman,* 52 F.3d at 976. The technical prong of the domestic industry can be satisfied either literally or under the doctrine of equivalents. *Certain Excimer Laser Systems for Vision Correction Surgery and Components Thereof and Methods for Performing Such Surgery*, Inv. No. 337-TA-419, Order No. 43 (July 30, 1999). The patentee must establish by a preponderance of the evidence that the domestic product practices one or more claims of the patent. *See Bayer,* 212 F.3d at 1247.

[redacted] Specifically, FlashPoint argues that its licensees have each made (a) significant investment in plant and equipment; (b) significant employment of labor and capital; and (c) substantial investment in research and development with respect to the domestic industry products.

Congress enacted 19 U.S.C. § 1337(a)(3) in 1988 as part of the Omnibus Trade and Competitiveness Act. *See Certain Plastic Encapsulated Integrated Circuits,* Inv. No. 337-TA-315, USITC Pub. No. 2574 (Nov. 1992), Initial Determination at 89 (October 16, 1991) (unreviewed in relevant part). The first two sub-paragraphs codified existing Commission practice. *See id.* at 89; *see also Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Commission Op. at 39 (June 29, 2007). Under Commission precedent, these requirements could be met by manufacturing the articles in the United States, *see, e.g.*, *DRAMs*, Commission Op. at 61, or other related activities, *see Schaper Mfg. Co. v. U.S. Int'l Trade Comm'n*, 717 F.2d 1368, 1373 (Fed. Cir. 1983) ("[I]n proper cases, 'industry' may encompass more than the manufacturing of the patented item. . . .").

In addition to subsections (A) and (B), there is also subsection (C). "In amending section 337 in 1988 to include subsection (C), Congress intended to liberalize the domestic industry requirement so that it could be satisfied by all 'holders of U.S. intellectual property rights who are engaged in activities genuinely designed to exploit their intellectual property' in the United States." *Certain Multimedia Display and Navigation Devices and Systems and Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Commission Op. at 7 (August 8, 2011) (quoting *Certain Digital Processors and Digital Processing Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-559, Final Initial Determination at 93 (unreviewed in relevant part) (May 11, 2007). Thus, "[u]nlike sub-parts (A) and (B), sub-part (C) of section 337(a)(3) 'does not require actual production of the article in the United States if it can be demonstrated that substantial investment and activities of the type enumerated are taking place in the United States.'" *Certain Personal Data and Mobile Communications Devices and Related Softwares*, No. 337-TA-710, Order 102: ID on Economic Prong at 4 (April 6, 2011) (unreviewed in relevant part) ("*Personal Data and Mobile Communications Devices*") (quoting H.R. Rep. No. 100-40, pt. 1, at 157 (1987)).

In *Printing and Imaging Devices*, the Commission held that "under the statute, whether the complainant's investment and/or employment activities are 'significant' is not measured in the abstract or absolute sense, but rather is assessed with respect to the nature of the activities and how they are 'significant' to the articles protected by the intellectual property right." *Printing and Imaging Devices*, Commission Op. at 26. The Commission further stated that:

> the magnitude of the investment cannot be assessed without consideration of the nature and importance of the

> complainant's activities to the patented products in the context of the marketplace or industry in question . . . . whether an investment is 'substantial' or 'significant' is context dependent. (*Id.* at 31.)

Indeed, the Commission has emphasized that "there is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic industry under the 'substantial investment' requirement" of section 337(a)(3)(C). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Commission Op. at 25 (May 16, 2008). Moreover, the Commission has stated that the complainant need not "define or quantify the industry itself in absolute mathematical terms." *Id.* at 26.

Section 337(a)(3)(C) provides for domestic industry based on "substantial investment" in the enumerated activities, including licensing of a patent. *See Certain Digital Processors and Digital Processing Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-559, Initial Determination at 88 (May 11, 2007) ("*Certain Digital Processors*"). Mere ownership of the patent is insufficient to satisfy the domestic industry requirement. *Certain Digital Processors* at 93. (citing the Senate and House Reports on the Omnibus Trade and Competitiveness Act of 1988, S.Rep. No. 71). However, entities that are actively engaged in licensing their patents in the United States can meet the domestic industry requirement. *Certain Digital Processors* at 93. In establishing a domestic industry under Section 337(a)(3)(C), the complainant does not need to show that it or one of its licensees is practicing a patent-in-suit. *See Certain Semiconductor Chips with Minimized Chip Package Size and Products Containing Same*, Inv. No. 337-TA-432, Order No. 13, at 11, (January 24, 2001) ("*Certain Semiconductor Chips*"). The complainant must, however, receive revenue, *e.g.* royalty payments, from its licensing activities. *Certain Digital Processors,* at 93-95 ("Commission decisions also reflect the fact that a complainant's receipt of royalties is an important factor in determining whether the domestic industry requirement is satisfied . . . [t]here is no Commission precedent for the establishment of a domestic industry based on licensing in which a complainant did not receive any revenue from alleged licensing activities. In fact, in previous investigations in which a complainant successfully relied solely on licensing activities to satisfy section 337(a)(3), the complainant had licenses yielding royalty payments.") (citations omitted). *See also Certain Video Graphics Display Controllers and Products Containing Same*, Inv. No. 337-TA-412, Initial Determination at 13 (May 14, 1999) (*"Certain Video Graphics Display Controllers"*); *Certain Integrated Circuit Telecommunication Chips and Products Containing Same Including Dialing Apparatus*, Inv. No. 337-TA-337, U.S.I.T.C. Pub. No. 2670, Initial Determination at 98 (March 3, 1993) (*"Certain Integrated Circuit Telecommunication Chips"*); *Certain Zero-Mercury-Added Alkaline Batteries, Parts Thereof and Products Containing Same*, Inv. No. 337-TA-493, Initial Determination at 142 (June 2, 2004) (*"Certain Zero-Mercury-Added Alkaline Batteries"*); *Certain Semiconductor Chips*, Order No. 13 at 6 (January 24, 2001); *Certain Digital Satellite System DSS Receivers and Components Thereof*, Inv. No. 337-TA-392, Initial and Recommended Determinations at 11 (December 4, 1997) ("*Certain Digital Satellite System DSS Receivers*").

In *Certain Multimedia Display & Navigation Devices & Systems, Components Thereof, & Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. (Aug. 8, 2011) ("*Navigation Devices*"), the Commission stated that a complainant seeking to rely on licensing activities must satisfy three requirements: (1) the investment must be "an investment in the exploitation of the asserted patent;" (2) the investment must relate to licensing; and (3) the investment "must be domestic, *i.e.*, it must occur in the United States." *Id.* at 7-8. The Commission stated that "[o]nly after determining the extent to which the complainant's investments fall within these statutory parameters can we evaluate whether complainant's qualifying investments are 'substantial,' as required by the statute." *Id.* at 8.

Under the first of the three requirements, the complainant must show a nexus between the licensing activity and the asserted patent. *Id.* at 9. When the asserted patent is part of a patent portfolio, and the licensing activities relate to the portfolio as a whole, the Commission requires that the facts be examined to determine the strength of the nexus between the asserted patent and the licensing activities. *Id.* The Commission provided a non-exhaustive list of factors to consider, such as (1) whether the licensee's efforts relate to "an article protected by" the asserted patent under Section 337 (a)(2)-(3); (2) the number of patents in the portfolio; (3) the relative value contributed by the asserted patent to the portfolio; (4) the prominence of the asserted patent in licensing discussions, negotiations, and any resulting licensing agreement; and (5) the scope of technology covered by the portfolio compared to the scope of the asserted patent. *Id.* at 9-10. The Commission explained that the asserted patent may be shown to be particularly important or valuable within the portfolio where there is evidence that: (1) it was discussed during licensing negotiations; (2) it has been successfully litigated before by the complainant; (3) it is related to a technology industry standard; (4) it is a base patent or pioneering patent; (5) it is infringed or practiced in the United States; or (6) the market recognizes the patent's value in some other way. *Id.* at 10-11.

Once a complainant's investment in licensing the asserted patent in the United States has been assessed in the manner described above, the next inquiry is whether the investment is "substantial." 19 U.S.C. § 1337(a)(3)(C). The Commission takes "a flexible approach whereby a complainant whose showing on one or more of the three section 337(a)(3)(C) requirements is relatively weak may nevertheless establish that its investment is 'substantial' by demonstrating that its activities and/or expenses are of a large magnitude." *Multimedia Display and Navigation Devices*, Comm'n Op. at 15. The Commission has indicated that whether an investment is "substantial" may depend on:

> (1) the nature of the industry and the resources of the complainant;
>
> (2) the existence of other types of "exploitation" activities;
>
> (3) the existence of license-related "ancillary" activities;
>
> (4) whether complainant's licensing activities are continuing; and
>
> (5) whether complainant's licensing activities are the type of activities that are referenced favorably in the legislative history of section 337(a)(3)(C).

Id. at 15-16. The complainant's return on its licensing investment (or lack thereof) may also be circumstantial evidence of substantiality. *Id.* at 16. In addition, litigation expenses may be evidence of the complainant's investment, but "should not automatically be considered a 'substantial investment in . . . licensing,' even if the lawsuit happens to culminate in a license." *John Mezzalingua Assocs., Inc. v. Int'l Trade Comm'n*, 660 F.3d 1322 (Fed. Cir. 2011).

B. Technical Prong

1. '471 Patent

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PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDED DETERMINATION ON REMEDY AND BONDING** has been served by hand upon the following parties as indicated on **November 5, 2013.**

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