IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

INTELLECTUAL VENTURES I, LLC and INTELLECTUAL VENTURES II LLC,	)	
Plaintiffs,	)	
v.	)	Civ. No. 13-473-SLR
CANON INC., CANON USA, INC., AND CANON SOLUTIONS AMERICA, INC.,	)	
Defendants.	)	

MEMORANDUM ORDER

At Wilmington this 27th day of March, 2015, having heard argument on, and having reviewed the papers submitted in connection with, the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language of U.S. Patent Nos. 8,300,285 ("the '285 patent"), 6,650,432 ("the '432 patent"), RE 43,086 ("the '086 patent"), and RE 44,528 ("the '528 patent") shall be construed consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), and the standard set forth below, as follows:

1. **Standard**. "In construing a means-plus-function claim, [pursuant to 35 U.S.C. § 112, ¶ 6,] the district court must first determine the claimed function and then identify the corresponding structure in the written description of the patent that performs that function." *Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010)

(citing *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006)). Ultimately, if no corresponding structure is disclosed in the specification, the claim term must be construed as indefinite, pursuant to 35 U.S.C. § 112, ¶ 2. *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012),

2. Where the claim language does not recite the term "means," there is a presumption that the limitation does not invoke 35 U.S.C. § 112, ¶ 6. *Personalized Media Commc'ns, LLC v. ITC*, 161 F.3d 696, 702 (Fed. Cir. 1998). This presumption can be overcome if the challenger demonstrates that "the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002) (internal citations omitted). To determine whether a claim term that lacks the word "means" is subject to § 112, ¶ 6, the court must consider the words of the claims themselves, the written description, the prosecution history, and any relevant intrinsic evidence. *Inventio AG v. ThyssenKrupp Elevator Americas Corp.*, 649 F.3d 1350, 1356 (Fed. Cir. 2011) (citing *Personalized Media*, 161 F.3d at 704 (The presumption that a claim lacking the term "means" recites sufficiently definite structure can be rebutted "if the evidence intrinsic to the patent and any relevant extrinsic evidence so warrant[s].")).

3. In *Inventio*, the Federal Circuit considered the terms "modernizing device" and "computing unit." 649 F.3d at 1357–60. The Court held that § 112, ¶ 6 was not applicable because the claimed "modernizing device" connoted sufficiently definite structure. *Id.* at 1359. "[T]he claims recite[d] a 'modernizing device,' delineate[d] the components that the modernizing device is connected to, describe[d] how the

modernizing device interacts with those components, and describe[d] the processing that the modernizing device performs. The written descriptions additionally show[ed] that the modernizing device convey[ed] structure to skilled artisans." *Id.* With respect to the "computing unit," the Court again found that the limitation connoted sufficiently definite structure based upon a reading of the claims and the written description." *Id.* at 1359–60.

4. Generally, "in a means-plus-function claim 'in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.'" *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (quoting *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). The specification can express the algorithm "in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure." *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008) (internal citation omitted).

5. The description of the algorithm must do more than describe the function to be performed; it must describe how the function is to be performed. *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1382–83 (Fed. Cir. 2009) (finding "[t]he specification contains no description of the structure or the process that the access control manager uses to perform the "assigning" function."). It is insufficient to aver that a disclosure has enough structure for a person of ordinary skill to devise some method or write some

software to perform the desired function. *Function Media, L.L.C. v. Google, Inc.*, 708 F.3d 1310, 1319 (Fed. Cir. 2013) (citing *Blackboard*, 574 F.3d at 1385).

6. In *Ergo Licensing*, the Federal Circuit explained that a narrow exception to the requirement for an algorithm exists.

> [A] general-purpose computer is sufficient structure if the function of a term such as 'means for processing' requires no more than merely 'processing,' which any general purpose computer may do without any special programming. If special programming is required for a general purpose computer to perform the corresponding claimed function, then the default rule requiring disclosure of an algorithm applies. It is only in the rare circumstances where any general-purpose computer without any special programming can perform the function that an algorithm need not be disclosed.

673 F.3d at 1364 (citing *In re Katz*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)).

7. **"[S]can control signals:"**[1] Indefinite under 35 U.S.C. § 112, ¶ 2. The '285 patent seeks to minimize electromagnetic interference and improve the quality of images transmitted by a scanner through: (1) transmitting digital image data "instead of analog image signals;" and (2) transmitting scanning control signals "through a common IC communication interface instead of timing control signals transmitted through a connection cable." ('285 patent, col. 3:1-8) The patent describes a "scanning circuit structure for a document scanner" in which "[t]he main circuit module receives a scanning instruction from a communication interface and converts the scanning instruction into scan control signals." (*Id.* at col. 2:20-23) The scan control signals "pass along the connection cable" where they are then converted into "timing control

[1] Claims 7-9 and 13-15 of the '285 patent.

signals." (*Id.* at cols. 2:20-23; 2:23-29; 2:37-40; 3:50-64) The specification does not provide further guidance as to the type or format of the signals or what the signals ultimately control. Regardless of the importance of signal format to the stated purpose of the invention, the precise function of the signals is relevant, especially where independent claim 7 specifies that "the received scan control signals do not comprise any timing control signals." (*Id.* at col. 5:23-24) As such, the claimed "scan control signal" is not a commonly-understood control signal, but is instead a functionally specialized signal, the scope of which is not adequately described in the claims or the specification. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The term "scan control signals," therefore, is indefinite under 35 U.S.C. § 112, ¶ 2.[2]

8. **"[T]iming control signals:"**[3] Indefinite under 35 U.S.C. § 112, ¶ 2. In the context of the claims and the specification, the optical sensor circuit module converts scan control signals received from the main circuit module into timing control signals. ('285 patent, col. 2:20-29) These timing control signals "extract[] an analog signal from the optical sensor." (Id. at col. 3:62-64) As with scan control signals, the specification does not provide guidance as to the type or format of the timing control signals or what they ultimately control. For the same reasoning applied to the term "scan control signals," the term "timing control signals" "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124. The term "timing control signals," therefore, is indefinite under 35 U.S.C. § 112, ¶ 2.

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[2] Unless otherwise specified, the court relies solely on intrinsic evidence in reaching its claim construction. *See generally Teva Pharm. USA, Inc. v. Sandoz, Inc.,* 135 S. Ct. 831, 834 (2015).

[3] Claims 7 and 13 of the '285 patent.

9. **"[C]ompensating and adjusting:"**[4] Indefinite under 35 U.S.C. § 112, ¶ 2. The specification of the '285 patent states that "[t]he main control logic unit also includes an image front-end processor for compensating and adjusting the captured digital image data so that the scanned image has **a better quality**." ('285 patent, col. 2:57-60) (emphasis added) Instructing that the scanned image has "a better quality" fails to provide adequate guidance to a person having ordinary skill in the art, especially where the extrinsic evidence provides no additional certainty or guideposts. (D.I. 226, ex. 1 at 15, 234) (Merriam-Webster's Collegiate Dictionary defines "compensate" as, "3a: to provide with means of counteracting variation b: to neutralize the effect of (variations)," and "adjust" as "a: to bring to a more satisfactory state") Such subjective language "does not provide a reasonably clear and exclusive definition, leaving the facially subjective claim language without an objective boundary." *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 13773 (F3d. Cir. 2014). Accordingly, the term "compensating and adjusting" "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124.

10. **"[A]n automatic scan operation:"**[5] "Scan operation in which the user operates the scanner without specifying image processing settings." Although "an automatic scan operation" appears in the preamble, the automatic nature of the scan operation is an essential component of the invention, with the inventors describing the "objective of the invention" as "performing an automatic scan operation . . . without requiring the user to specify image processing settings." ('432 patent, col. 1:60-65)

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[4] Claim 10 of the '285 patent.

[5] Claims 1-8 of the '432 patent.

Figure 1 depicts a user interface 50 that allows for user input 60. ('432 patent, figure 1) The specification explains that "[t]he block designated by the reference number 60 is used to represent the input from user operation." (*Id.* at col. 3:26-28) The specification clarifies the scope of the user input, stating that "the user first needs to place the original document on the scanner, and then press a scan button to activate the scan operation. After this, all the user needs to do is simply wait until the final scanned image is produced." (*Id.* at col. 2:54-57) Regarding any user involvement in image processing settings, the specification states that "[t]he user needs not [sic] to specify any image processing settings. These will be automatically specified by the user interface based on the image qualities of the primitive scanned image." (*Id.* at col. 2:58-60) During prosecution, the applicants distinguished a prior art reference with the argument that "the [prior art] scanning operation . . . is not fully automatic and yet the user needs to manually change the settings." (D.I. 220, ex. 29 at A1410-11) In the patent itself, the applicants distinguish the present invention from "conventional image scan programs" which "require[] the user to specify various image processing settings to the scan operation." ('432 patent, col. 1:36-38) In sum, although the patented method and user interface allow the user to initiate scanning, nothing in the intrinsic record supports the position that a user may specify image processing settings.

11. **"[I]mage processing settings:"**[6] "Settings used by the scanner to obtain a scanned image." This construction is consistent with the specification, which describes image processing settings as "including, for example, color setting, DPI setting, and image size setting." ('432 patent, col. 4:6-9) Unlike "image processing routines," which

[6] Claims 1-8 of the '432 patent.

include processes performed on the scanned image such as "automatic cutting, distortion correction, color calibration, and automatic character recognition" (*id.* at col. 4:15-19), "image processing settings" are used to either "obtain a primitive scanned image" or a "final scanned image" (*Id.* at claims 1-8).

12. **"[A]pplication program:"**[7] "Post-scan application." Although the word "post-scan" does not appear in the claims or the specification, the specification states that "the final scanned image is transferred via the scanner driver 30 to the application program so that the final scanned image can be used by the application program 40." ('432 patent, col. 4:46-48) The specification provides examples of an application program, such as "an image editing program or a word processor," that are used following the final scan to "process the final scanned image as an image file." (*Id.* at col. 4:49-51) Such a post-scan use of the application program is reinforced by the claims themselves, which recite transferring the final scanned image to the application program "for use by the application program." (*Id.* at claims 1-8) Accordingly, the present construction is consistent with the claims and the specification.

13. **"[I]mage processing routines:"**[8] Not indefinite under 35 U.S.C. § 112, ¶ 2. The claims and specification provide concrete examples of image-enhancement processes including "automatic cutting, distortion correction, color calibration, and automatic character recognition." ('432 patent, col. 3:39-44; *see also* claims 1-8) Although the term may "broadly refer to an entire field of potential image processing techniques" (D.I. 233 at ¶ 41), the specification is "clear in its examples" and, therefore,

[7] Claims 1-8 of the '432 patent.

[8] Claims 1-8 of the '432 patent.

provides adequate boundaries. *See Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1368 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus*, 134 S. Ct. at 2130. Accordingly, the court finds that one of ordinary skill in the art would understand the scope of this term with reasonable certainty.

14. **"[A]ctivating the scanner to perform a final scan operation on the original document based on the suited image processing settings to thereby obtain a final scanned image which is transferred to the application program for use by the application program:"**[9] No construction is needed because both parties agree that "transfer of the final scanned image happens after the final scanned image is obtained." (D.I. 242 at 12; D.I. 250 at 12) Dividing the limitation into two steps as proposed by defendants does not provide further clarity, especially where the claims and the specification both depict the limitation as a single step. ('432 patent, claims 1-4; col. 2:31-35)

15. **"[M]eans for activating the scanner to perform a final scan operation on the original document based on the suited image processing settings to thereby obtain a final scanned image which is transferred to the application program for use by the application program:"**[10] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. Consistent with the court's construction of "activating the scanner..." *supra*, the corresponding function is: "Activating the scanner to perform a final scan operation on the original document based on the suited image processing settings to thereby obtain a final scanned image

[9] Claims 1-4 of the '432 patent.

[10] Claims 5-8 of the '432 patent.

which is transferred to the application program for use by the application program." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20 as well as steps 106 and 108 in figure 2 and user interface 50 as the corresponding structure. Figure 1 does not depict any "software" on computer system 20, but it does show a "scanner driver 30," which the specification identifies as "a software program." ('432 patent, 3:20) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants.[11] (D.I. 242 at 10; D.I. 250 at 11)

16. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple v. Motorola, Inc.*, 757 F.3d 1286, 1298-99 (Fed. Cir. 2014). Here, beyond the charted steps 106 and 108 in figure 2, which parrot the instruction to "perform a final scan based on the suited settings" and "transfer the final scanned image to the application program," respectively, no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed using the claim language. ('432 patent, col. 4:42-51("In the next step S106, the user interface 50 activates the scanner 10 to perform a final scan operation on the original

[11] Plaintiffs' expert notes that the user interface "activates" the scanner, but he does not, in the context of the '432 patent, opine that the user interface 50 is a type of software. (D.I. 227 at ¶¶ 16-22) The patent itself is silent on the issue of whether the user interface is software.

document based on the suited image processing settings to thereby obtain a final scanned image.")) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** user interface for [a] scanner." (*Id.* at col. 1:66-67) (emphasis added)

17. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1359 (Fed. Cir. 2004). Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 92) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

18. **"[C]olor calibration:"**[12] "Adjusting by determining the deviation of a color from a baseline so as to ascertain the correction factors." The '432 patent lists color calibration as a type of "image processing routine." ('432 patent, col. 2:38-40) The specification describes a color calibration in which "the image qualities of the original

[12] Claims 3 and 7 of the '432 patent.

document can be recognized, allowing the scanner driver 30 to change the image processing settings from the default settings (COLOR, 600 dip) to the suited settings (B/W, 300 dpi)." (*Id.* at col. 4:34-38) Both parties agree that "color calibration" involves an adjustment. (D.I. 224 at 17-18; D.I. 250 at 10) Defendants additionally propose that the adjustment occur by reference to a standard, but defendants are unable to point to anything in the intrinsic record supporting the use of a standard. Accordingly, characterizing "color calibration" as an adjustment is most consistent with the claims and the specification.

19. **"[M]eans for reading a set of default image processing settings:"**[13] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "Reading a set of default image processing settings." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify user interface 50 in figure 1 and step 100 in figure 2 as the corresponding structure.[14] Both parties agree that user interface 50 is a type of software. (D.I. 242 at 10; D.I. 250 at 11)

20. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d

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[13] Claims 5-8 of the '432 patent.

[14] Plaintiffs identify step 100 in figure 2 as a corresponding structure for the first time in their opening claim construction brief. (D.I. 224 at 22)

at 1298-99. Here, beyond the charted step 100 in figure 2, which parrots the instruction to "activate user interface," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed using the claim language. ('432 patent, col. 4:5 ("In the first step S100, the user interface 50 is activated.")) The specification does state that the "user interface 50 is preset with a set of default image processing settings," but provides no guidance for how these settings are read into the user interface. (*Id.* at col. 4:6-8) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** user interface for [a] scanner." (*Id.* at col. 1:66-67) (emphasis added)

21. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "user interface" to provide adequate structure for the claimed function. Defendants' expert counters with the opinion that disclosure of the user interface in figure 1 "does not provide a person of ordinary skill in the art any algorithm or particular structure for that user interface, much less an algorithm or particular structure for 'reading a set of default image processing settings.'" (D.I. 233 at ¶ 67) As plaintiff failed to provide persuasive competing extrinsic evidence, the court concludes that the specification fails to disclose sufficient structure.

22. **"[M]eans for activating the scanner to perform a primitive scan operation on the original document based on the default image processing settings to thereby obtain a primitive scanned image which is then transferred to**

the scanner driver:"[15] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "activating the scanner to perform a primitive scan operation on the original document based on the default image processing settings to thereby obtain a primitive scanned image which is then transferred to the scanner driver." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20 as well as step 102 in figure 2 and user interface 50 as the corresponding structure. Figure 1 does not depict any "software" on computer system 20, but it does show a "scanner driver 30," which the specification identifies as "a software program." ('432 patent, 3:20) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants. (D.I. 242 at 10; D.I. 250 at 11)

23. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted step 102 in figure 2, which parrots the instruction to "perform a primitive scan," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed using the claim language. ('432 patent, col. 4:9-13 ("In the next step S102, the user interface 50 commands the scanner 10 to perform a primitive scan operation on the original document based on the default image processing settings in the user

[15] Claims 5-8 of the '432 patent.

interface 50 to thereby obtain a primitive scanned image.")) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** user interface for [a] scanner." (*Id.* at col. 1:66-67) (emphasis added)

24. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 74) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

25. **"[M]eans for activating the scanner driver to perform a set of image processing routines on the primitive scanned image to thereby obtain the image qualities of the original document, wherein the set of image processing routines include automatic cutting [distortion correction] [color calibration] [automatic character recognition]; and based on the image qualities of the original document, obtaining a set of suited image processing settings for optimal scan of**

the original document:"[16] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "activating the scanner driver to perform a set of image processing routines on the primitive scanned image to thereby obtain the image qualities of the original document, wherein the set of image processing routines include automatic cutting [distortion correction] [color calibration] [automatic character recognition]; and based on the image qualities of the original document, obtaining a set of suited image processing settings for optimal scan of the original document." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20 as well as step 104 in figure 2 and scanner driver 30 in figure 1 as the corresponding structure. Figure 1 does not depict any "software" on computer system 20, but it does show a "scanner driver 30," which the specification identifies as "a software program." ('432 patent, 3:20) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants. (D.I. 242 at 10; D.I. 250 at 11)

26. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted step 104 in figure 2, which parrots the instruction to "process primitive scanned image and obtain the suited settings," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm,

[16] Claims 5-8 of the '432 patent.

instead describing the function to be performed using the claim language. ('432 patent, col. 4:15-24 ("In the next step S104, the scanner driver 30 is activated to perform an image-enhancement process on the primitive scanned image . . . Based on the results from the foregoing image processing routines, the scanner driver 30 can recognize the image qualities of the original document and thereby automatically specify a set of suited image processing settings for optimal scan of the original document.")) The specification does state that the "image-enhancement process includes automatic cutting, distortion correction, color calibration, and automatic character recognition," but provides no guidance for how these actions are performed. (*Id.* at col. 4:6-8) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** user interface for [a] scanner." (*Id.* at col. 1:66-67) (emphasis added)

27. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 82) The court finds defendants' expert more

persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

28. **"[A]pplication program:"**[17] "Post-scan application." Although the word "post-scan" does not appear in the claims or the specification, the specification states that "the final scanned image is transferred to an application program for use by the application program." ('086 patent, col. 1:58-60) Such a post-scan use of the application program is reiterated by the independent claims, which recite transferring the final scanned image to the application program. (*Id.* at claims 2, 4, 6 and 8) The specification provides examples of an application program such as "an image editing program or a word processor that can accept the quality-enhanced image as an image file." ('086 patent, col. 4:45-47) Accordingly, the present construction is consistent with the claims and the specification.

29. **"[C]olor calibration:"**[18] "Adjusting by determining the deviation of a color from a baseline so as to ascertain the correction factors." The '086 patent lists color calibration as a type of "image-enhancement process." ('086 patent, col. 4:6-9) Defendants additionally propose that the adjustment occur by reference to a standard, but defendants are unable to point to anything in the intrinsic record supporting the use of a standard. Accordingly, characterizing "color calibration" as an adjustment is most consistent with the claims and the specification.

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[17] Claims 2, 4, 6, 8, 11, 13, 17 and 19 of the '086 patent.

[18] Claims 9, 15 and 21 of the '086 patent.

30. **"[I]mage processing settings:"**[19] "Settings used by the scanner to obtain a scanned image." This construction is consistent with the specification, which describes image processing settings such as "size setting and the desired scan area of the original document." ('086 patent, col. 1:51-54) Unlike "image processing routines," which include processes performed on the scanned image such as "automatic cutting, distortion correction, color calibration, and automatic character recognition" (*Id.* at col. 4:6-9), "image processing settings" are used to "obtain[] a primitive scanned image" (*Id.* at claims 2, 4, 6 and 8).

31. **"[I]mage enhancement process:"**[20] Not indefinite under 35 U.S.C. § 112, ¶ 2. The claims and specification provide concrete examples of image-enhancement processes including "automatic cutting, distortion correction, color calibration, and automatic character recognition." ('086 patent, col. 4:6-9; *see also* claims 2, 4, 6, 8, 9 and 15) Although the term may "broadly refer to an entire field of potential image processing techniques" (D.I. 233 at ¶ 46), the specification is "clear in its examples" and therefore provides adequate boundaries. *See Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1368 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus*, 134 S. Ct. at 2130. Accordingly, the court finds that one of ordinary skill in the art would understand the scope of this term with reasonable certainty.

32. **"[A] computer system, for storing and processing the image data from the scanner:"**[21] Indefinite under 35 U.S.C. § 112, ¶ 2. Following the guidance of the

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[19] Claims 2, 4, 6, and 8 of the '086 patent.

[20] Claims 2, 4, 6, 8, 9 and 15 of the '086 patent.

[21] Claims 6 and 8 of the '086 patent.

Board of Patent Appeals and Interferences, the Federal Circuit has held that "reciting both an apparatus and a method of using that apparatus renders a claim indefinite under section 112, paragraph 2." *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). The reasoning behind this rule is that if a patentee is allowed to claim "two separate statutory classes of invention, a manufacturer or seller of the claimed apparatus would not know from the claim whether it might also be liable for contributory infringement because a buyer or user of the apparatus later performs the claimed method of using the apparatus." *Id.* More recently, the Federal Circuit applied the standard it articulated in *IPXL*, finding that a claim that recited four apparatus elements ("buffer means," "fractional encoding means," "second buffer means," and "trellis encoding means") was indefinite for including a fifth method element, "transmitting the trellis encoded frames." *Rembrant Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011). The Federal Circuit distinguishes the impermissible practice of combining apparatus and method limitations from "functional limitations," in which the drafter properly defines something by what it does rather than what it is. *See In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997). The Federal Circuit has upheld functional claiming where the claims "merely establish those functions as the underlying . . . environment in which the [apparatus] operates." *HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1277 (Fed. Cir. 2012)

33. Claims 6 and 8 of the '086 patent claim "a user interface for a scanner, comprising" four limitations: (1) a scanner; (2) a computer system; (3) a scanner driving program; and (4) an application program. ('086 patent, claims 6 and 8) Plaintiffs admit that at least the computer system, scanner driving program, and application program

are apparatus limitations. (D.I. 242 at 12-13) Following the "application program" limitation, the claims go on to recite, "wherein a **method** implemented on the user interface comprises the steps of" "determining a set of image processing settings," "obtaining a primitive scanned image," "performing an image-enhancement process," and "obtaining the final image." (*Id.*) (emphasis added) Unlike the claims in *HTC Corp.*, claims 6 and 8 do not describe the environment in which the user interface operations, but rather recite "both a system that allowed a user to practice a method step and the user's practicing the method step." *See HTC Corp.*, 667 F.3d at 1277. Because the patentee expressly specified that the steps following the final apparatus limitation described a "method implemented on the user interface," the court is unconvinced by plaintiffs' argument that the method steps are merely functional limitations. Accordingly, the court finds that claims 6 and 8 are indefinite under § 112, ¶ 2 for reciting both an apparatus and a method.[22]

34. **"[A] scanner driving program, for driving the scanner and then performing an image-enhancement process on the image data:"**[23] For the same reasons articulated in paragraphs 31 and 32, *supra*, the court finds that this term is indefinite under 35 U.S.C. § 112, ¶ 2.

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[22] As the court finds that claims 6 and 8 are indefinite under 35 U.S.C. § 112, ¶ 2 for improper mixed method and apparatus claiming, it does not reach the question of whether the disputed term is subject to § 112, ¶ 6.

[23] Claims 6 and 8 of the '086 patent.

35. **"[A]n application program, for receiving a final image processed by the image-enhancement process:"**[24] For the same reasons articulated in paragraphs 31 and 32, *supra*, the court finds that this term is indefinite under 35 U.S.C. § 112, ¶ 2.

36. **"[M]eans for obtaining a primitive scanned image using an image processing setting through a scanner driving program:"**[25] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "obtaining a primitive scanned image using an image processing setting through a scanner driving program." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20 as well as steps 100, 102 and 104 in figure 3 and user interface 50 in figure 2 as the corresponding structure. Figure 2 does not depict any "software" on computer system 20, but it does show a "scanner driver 30," which the specification identifies as "a software program." ('086 patent, 3:53) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants.[26] (D.I. 242 at 10; D.I. 250 at 11)

37. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'"

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[24] Claims 6 and 8 of the '086 patent.

[25] Un-asserted claim 21 of the '086 patent.

[26] Plaintiffs' expert notes that the user interface "activates" the scanner, but he does not, in the context of the '086 patent, opine that the user interface 50 is a type of software. (D.I. 227 at ¶¶ 23-28) The patent itself is silent on the issue of whether the user interface is software.

but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted steps 100, 102 and 104 in figure 3, which specify "determining a set of settings and storing the settings into the user interface," "start scan," and "acquire a primitive scanned image," respectively, no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed in terms scarcely more specific than the charted steps in figure 3. ('086 patent, col. 4:24-29 ("In the next step S102, the user interface 50 issues a scan request to the scanner 10. In response, in the next step S104, the scanner 10 is activated to perform a scan operation on the original documents based on the image processing settings in the user interface 50 to thereby obtain a primitive scanned image.")) The specification does state that the "image-enhancement process includes automatic cutting, distortion correction, color calibration, and automatic character recognition," but provides no guidance for how these actions are performed. (*Id.* at col. 3:4-7) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** method and user interface for use on a computer system couple with a scanner." (*Id.* at col. 2:41-44) (emphasis added)

38. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing

the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 124) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

39. **"[M]eans for performing an image- enhancement process on the primitive scanned image, wherein the image-enhancement process includes at least one of an automatic cutting routine, a distortion correction routine, a color calibration routine, or an automatic character recognition routine:"**[27] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "performing an image- enhancement process on the primitive scanned image, wherein the image-enhancement process includes at least one of an automatic cutting routine, a distortion correction routine, a color calibration routine, or an automatic character recognition routine." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify scanner driver 30 in figure 2 and step 106 in figure 3 as the corresponding structure. The specification describes "scanner driver 30" as "a software program." ('086 patent, 3:53)

40. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'"

[27] Un-asserted claim 21 of the '086 patent.

but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted step 106 in figure 3, which provides the instruction to "make enhancements on the primitive scanned image," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed in terms scarcely more specific than the charted steps in figure 3. (*Id.* at col. 4:31-33 ("In the next step S106, the scanner driver 30 is activated to perform an image-enhancement process on the primitive scanned image the thereby obtain a quality-enhanced image.")) The specification does state that the "image-enhancement process includes automatic cutting, distortion correction, color calibration, and automatic character recognition," but provides no guidance for how these actions are performed. ('086 patent, col. 4:34-37) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** method and user interface for use on a computer system couple with a scanner." (*Id.* at col. 2:41-44) (emphasis added)

41. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters

with the opinion that disclosure of the user interface 50 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 134) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

42. **"[M]eans for obtaining a final image by the image-enhancement process, wherein the final image is transferred to an application program:"**[28] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree that the corresponding function is: "obtaining a final image by the image-enhancement process." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20, user interface 50 in figure 2 as well as step 110 in figure 3 as the corresponding structure. The specification describes "scanner driver 30" as "a software program." ('086 patent, 3:53) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants. (D.I. 242 at 10; D.I. 250 at 11)

43. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted step 110 in figure 3, which instructs to "transfer the quality-enhancement image to the application program," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead

[28] Un-asserted claim 21 of the '086 patent.

describing the function to be performed in terms scarcely more specific than the charted steps in figure 3. (*Id.* at col. 4:42-47 ("In the next step S110, the quality-enhanced image resulting from the image-enhancement process is transferred to the application program 40.")) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** method and user interface for use on a computer system couple with a scanner." (*Id.* at col. 2:41-44) (emphasis added)

44. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 143) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

45. **"[M]eans for determining the image processing setting based on a scan target associated with the primitive scanned image:"**[29] Indefinite under 35 U.S.C. § 112, ¶ 2 for failing to disclose a corresponding structure. The parties agree

[29] Claim 23 of the '086 patent.

that the corresponding function is: "determining the image processing setting based on a scan target associated with the primitive scanned image." There is no corresponding structure. Unlike in *Aristocrat*, 521 F.3d at 1332-33, where the corresponding structure was a programmed computer, plaintiffs identify **software** on computer 20, user interface 50 in figure 2 as well as step 100 in figure 3 as the corresponding structure. The specification describes "scanner driver 30" as "a software program." ('086 patent, 3:53) Plaintiffs also identify the user interface as a type of software, a position not contested by defendants. (D.I. 242 at 10; D.I. 250 at 11)

46. Intrinsic evidence. The Federal Circuit has held that a computer "cannot be relied upon to provide sufficiently definite structure for a software claim lacking 'means,'" but rather that the structure "of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a set of instructions or rules." *Apple*, 757 F.3d at 1298-99. Here, beyond charted step 100 in figure 3, which describes "determining a set of settings and storing the settings into the user interface," no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed in terms scarcely more specific than the charted steps in figure 3. ('086 patent, col. 4:20-23 ("In the first step S100, a set of image processing settings that are suited for optimal scan of the original documents is determined by a scanner driving program, and then stores these settings into the user interface.")) The lack of an algorithm is especially evident where the specification identifies the invention as "a **new** method and user interface for use on a computer system couple with a scanner." (*Id.* at col. 2:41-44) (emphasis added)

47. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that disclosure of the user interface 50 and scanner driver 30 on computer 20 fails to "describe to a person of ordinary skill in the art how to perform the function of [the] term." (D.I. 233 at ¶ 153) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure.

48. **"[C]olor calibration:"**[30] "Adjusting by determining the deviation of a color from a baseline so as to ascertain the correction factors." The '086 patent lists color calibration as a type of "image-enhancement process." ('528 patent, col. 4:18-21) Defendants additionally propose that the adjustment occur by reference to a standard, but defendants are unable to point to anything in the intrinsic record supporting the use of a standard. Accordingly, characterizing "color calibration" as an adjustment is most consistent with the claims and the specification.

[30] Claim 15 of the '528 patent.

49. **"[I]mage processing setting:"**[31] "Settings used by the scanner to obtain a scanned image." This construction is consistent with the specification, which describes image processing settings such as "size setting and the desired scan area of the original document." ('528 patent, col. 1:61-64) Unlike "image processing routines," which include processes performed on the scanned image such as "automatic cutting, distortion correction, color calibration, and automatic character recognition" (*Id.* at col. 4:18-21), an "image processing setting" is used to "obtain an original scanned image." (*Id.* at claim 15)

50. **"[A]pplication program:"**[32] "Post-scan application." Although the word "post-scan" does not appear in the claims or the specification, the specification states that "the final scanned image is transferred to an application program for use by the application program." ('528 patent, col. 2:1-3) The specification provides examples of an application program such as "an image editing program or a word processor that can accept the quality-enhanced image as an image file." (*Id.* at col. 3:23-25) Such a post-scan use of the application program is reinforced by the asserted claims, which recite transferring the final scanned image to the application program. Accordingly, the present construction is consistent with the claims and the specification.

51. **"[I]mage enhancement process:"**[33] Not indefinite under 35 U.S.C. § 112, ¶ 2. The claims and specification provide concrete examples of image-enhancement processes including "automatic cutting, distortion correction, color calibration, and

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[31] Claim 15 of the '528 patent.

[32] All asserted claims of the '528 patent.

[33] Claim 15 of the '528 patent.

automatic character recognition." ('528 patent, col. 3:16-19; claim 15) Although the term may "broadly refer to an entire field of potential image processing techniques" (D.I. 233 at ¶ 46), the specification is "clear in its examples" and therefore provides adequate boundaries. *See Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1368 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus*, 134 S. Ct. at 2130. As such, the term "inform[s], with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus*, 134 S. Ct. at 2124.

52. **"[A] processing device configured to: obtain an original scanned image using an image processing setting through a scanner driving program; perform an image-enhancement process on the original scanned image, wherein the image-enhancement process includes at least one of an automatic cutting routine, a distortion correction routine, a color calibration routine, or an automatic character recognition routine; and obtain a final image by the image-enhancement process, wherein the final image is transferred to an application program:"**[34] Although there is a presumption that a term does not invoke 35 U.S.C. § 112, ¶ 6 if the claim language does not recite the term "means," the Federal Circuit has held that the "presumption can be overcome if the challenger demonstrates that "the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *CCS Fitness*, 288 F.3d at 1369. Claim 15 of the '528 patent and claim 21 of the '086 patent[35] recite essentially the same limitations, with the primary difference being that claim 21 of the '086 patent

[34] Claim 15 of the '528 patent.

[35] The '528 and the '086 patents share a specification.

uses "means for" language while claim 15 does not. In paragraphs 35 through 43, *supra*, the court found that each of the limitations of claim 21 of the '086 patent is indefinite for failure to disclose a corresponding structure. Following the same reasoning applied to claim 21 of the '086 patent, the court finds that, although claim 15 does not use "means for" language, 35 U.S.C. § 112, ¶ 6 nonetheless applies and the claim is indefinite for failing to recite sufficiently definite structure, pursuant to § 112, ¶ 2.

53. **"[T]he processing device . . . configured to . . . check if there is another scan job; and transfer the final image to the application program:"**[36] Plaintiffs argue that 35 U.S.C. § 112, ¶ 6 does not apply to this limitation because sufficient structure is provided in the form of computer system 20 in figure 2, scanner driver 30 in figure 2 and steps S108 and S110 in figure 3. The court finds that, following the reasoning employed with respect to claim 23 of the '086 patent in paragraphs 44 through 46, *supra*, the claim term fails to recite sufficiently definite structure and, therefore, is indefinite, for the following reasons:

54. Intrinsic evidence. Specifically, beyond charted steps S108 and S110 in figure 3, which instruct if "scan completed?" then "transfer the quality-enhanced image to the application program," respectively, no supporting algorithm is disclosed. The specification similarly fails to provide a suitable algorithm, instead describing the function to be performed in terms scarcely more specific than the charted steps in figure 3. (*See, e.g.,* '528 patent, col. 4:54-49 ("In the step S110, the quality-enhanced image resulting from the image-enhancement process is transferred to the application program 40 for use by the application program 40.")) The lack of an algorithm is especially

[36] Claim 16 of the '528 patent.

evident where the specification identifies the invention as "a **new** method and user interface for use on a computer system couple with a scanner." (*Id.* at col. 2:53-56) (emphasis added).

55. Extrinsic evidence. The relevant question then becomes whether the term "is used in common parlance or by persons of skill in the pertinent art to designate structure." *Lighting World,* 382 F.3d at 1359. Plaintiffs' expert does not offer an opinion as to whether a person of ordinary skill in the art would understand a "scanner driver" or "user interface" to provide adequate structure for the claimed function. Instead, plaintiffs support the argument that "scanner driver" is a commonly understood term by directing the court to a user guide for a personal computer, which provides instructions for how to set a scanner driver. (D.I. 244, ex. 6 at CAN0090390) Defendants' expert counters with the opinion that "a person of ordinary skill in the art at the time of the alleged invention of the '528 patent would not understand a 'processing device' to be inherently capable of performing this function [of the term]." (D.I. 233 at ¶ 184) The court finds defendants' expert more persuasive than the unrelated user guide, and concludes that the specification fails to disclose sufficient structure, and the term is therefore subject to § 112, ¶ 6 and is indefinite, pursuant to § 112, ¶ 2.

56. **"[T]he processing device . . . configured to determine the image processing setting based on a scan target associated with the original scanned image:"**[37] Claim 17 of the '528 patent and claim 23 of the '086 patent[38] recite essentially the same limitations, with the primary difference being that claim 23 of the

[37] Claim 17 of the '528 patent.

[38] The '528 and the '086 patents share a specification.

'086 patent uses "means for" language while claim 15 does not. In paragraphs 44 through 46, *supra*, the court found that the limitation recited in claim 23 of the '086 patent is indefinite for failure to disclose a corresponding structure. Following the same reasoning applied to claim 23 of the '086 patent, the court finds that although claim 17 does not use "means for" language, § 112, ¶ 6 nonetheless applies and the claim is indefinite for failing to recite sufficiently definite structure, pursuant to § 112, ¶ 2.

United States District Judge