

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,

Petitioner,

v.

138 EAST LCD ADVANCEMENTS LIMITED,

Patent Owner.

Case No. IPR2024-00959

U.S. Patent No. 7,428,082

PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

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I. INTRODUCTION

The Board's Decision Granting Institution (Paper 7, "DI") faulted Patent Owner for looking at the references individually rather than addressing the combinations asserted in the Petition (Paper 1, "Pet."). DI 23-24, 31-32, 39. Patent Owner's Response (Paper 13, "POR") repeats those mistakes. For Ground 1, Patent Owner argues that Kuwata and Fisher each do not disclose the claimed "specification data, which specifies image processing control data to be updated" in claim 1. POR 18-25. But the Petition relies on a combination of Kuwata and Fisher for this limitation. The Petition shows that Kuwata's preset conditions disclose "image processing control data" and relies on a combination of Kuwata and Fisher to show why it would have been obvious to download new or updated preset conditions from a server and store them on Kuwata's camera based on specification data that specifies the selected preset conditions to be downloaded. Pet. 15-19, 24-27.

For Ground 2, Patent Owner does not dispute that Ohga teaches "specification data" but rather contends that Ohga's specification data only specifies input and output profiles, not the claimed "image processing control data." POR 37-39. Again, Patent Owner fails to address the references as combined because the Petition relies on Kuwata's preset conditions for the "image processing control data," not Ohga's input and output profiles. Pet. 56-58.

Patent Owner's argument that Ohga's input and output profiles are not "image processing control data" is also factually incorrect. POR 37-43, 51-59. Ohga's profiles disclose "image processing control data" because they control *how* the image data is converted from one color space to another. For each challenged claim, the asserted references teach each claim limitation that Patent Owner contends is missing.

Patent Owner's motivation-to-combine and expectation-of-success arguments lack merit. Patent Owner attempts to argue teaching away from Kuwata's silence around downloading data from the Internet, but a teaching away requires that the references *discourage* the claimed combination. POR 26-28. Mere silence is not discouragement, particularly where a skilled artisan would have recognized several benefits to the combination. Patent Owner's expectation-of-success argument also fails because, among other reasons, it is erroneously premised on Kuwata's *camera* requiring a printer driver when Kuwata only describes a printer driver on the *printer*. POR 28-29.

The Board should reject Patent Owner's arguments and find all claims unpatentable.

II. ARGUMENT

A. Patent Owner's Arguments Regarding Ground 1's Kuwata-Fisher Combination Fail

1. Patent Owner Improperly Attacks the References Individually

Patent Owner argues that Kuwata and Fisher purportedly “fail to teach” the claimed functionality of the storage manager in claim 1, which is “configured to update at least a part of the image processing control data ... *based on specification data*.” POR 18-25. Patent Owner then refers back to these arguments when discussing claim 10's “memory management module.” POR 29-30. Because Patent Owner focuses on these references individually rather than how the Petition combines them to render obvious downloading new or updated preset conditions based on specification data identifying the DSC-printer pair to the server, Patent Owner's arguments “lack merit.” Pet. 22-27, 46; *Palo Alto Networks, Inc. v. Centripetal Networks, LLC*, 122 F.4th 1378, 1386 (Fed. Cir. 2024).

The Kuwata-Fisher combination teaches the claimed functionality of the “storage manager” in claim 1 and the “memory management module” in claim 10. Pet. 22-27, 46. For example, Kuwata teaches image processing control data stored in a control data storage because it discloses preset conditions stored in memory within control circuit 224 of the camera. Ex. 1005 (“Kuwata”), [0082]-[0083], [0089]; *see* Pet. 20-21, 24. Fisher teaches a storage manager configured to update

data stored in the camera storage based on specification data, which specifies the data to be updated, because it discloses an ancillary data module that “select[s] and download[s]” ancillary data files from an Internet server and stores them locally on the camera storage for “utilization by the camera device.” Ex. 1006 (“Fisher”), [0008]-[0013], [0044], [0055], [0057]; *see* Pet. 22-24. The Petition shows why it would have been obvious to implement Fisher’s ancillary data module in Kuwata’s camera “to update the preset conditions” stored on Kuwata’s camera based on specification data that specifies the new or updated preset conditions to download. Pet. 15-19, 24-27.

Focusing only on Fisher’s disclosure of “descriptors” in an ancillary data file, Patent Owner argues that Fisher does not disclose “*specification data, which specifies ... data to be updated,*” because Fisher purportedly does not disclose “using descriptors to download new ancillary data files from a server.” POR 19-25. But the Petition only identifies “descriptor[s]” as one example of “specification data” and more generally argues that Fisher’s “[a]ncillary data module 416 downloads an ancillary data file from the Internet server based on specification data ... that corresponds to the user’s selection.” Pet. 23 (citing Fisher, [0010], [0023], [0049], [0053]). For example, Fisher discloses that the camera’s ancillary data module 416 selects and downloads one or more ancillary data files stored on an Internet server and stores the selected ancillary data files in the camera’s memory.

Fisher, [0023], [0037], [0057]-[0058]. Fisher's ancillary data module provides the server with specification data that specifies the ancillary data files to be downloaded when it selects and downloads one or more ancillary data files from an Internet server, regardless of whether Fisher explicitly describes using the files' descriptors for that purpose. *Id.*

Moreover, as Patent Owner acknowledges, Fisher's descriptors "are part of the ancillary data files to be downloaded" and "'describe' their associated ancillary data, as the name 'descriptor' suggests." POR 22; *see* Fisher, [0012], [0053], [0059]. Fisher discloses that "a system user may interactively view, manipulate, select, and download ancillary data files 418 from the data source using appropriate respective data-source content review procedures and ancillary-data file download procedures." Fisher, [0057]. Because Fisher discloses a user interactively viewing and selecting ancillary data files from an Internet server for download and because the descriptors describe the associated ancillary data in those files, Fisher teaches that the selection and download of ancillary data files is based on descriptors that describe the selected files. POR 22; Fisher, [0044], [0057]; *see* Pet. 22-27; Ex. 1003 ("Stevenson") ¶¶101-110. Indeed, Fisher discloses that each descriptor "may include any appropriate information related to a corresponding set of data," teaching that the descriptors are used to provide users with appropriate information about the "selectable ancillary data files" on the server during the "data-source content review

procedures” and are used to identify the selected files to the server during the “ancillary-data file download procedures.” Fisher, [0023], [0053], [0057], [0059].

The Petition also explains that, in the Kuwata-Fisher combination, it would have been obvious “to identify the selected preset conditions to be updated (image processing control data to be updated) with specification data based on Fisher’s teaching of ‘descriptors’ for the ‘respective set of data’ (e.g., preset conditions for a DSC-printer pair) to be updated from the server.” Pet. 25 (citing Fisher, [0049]-[0050], [0053], [0057], [0059]; Stevenson ¶107). As Dr. Stevenson explained,

Fisher discloses that “descriptors 712 may include any appropriate information related to a corresponding set of data 714,” and a POSITA would have only needed to apply conventional network-communication techniques to provide a data source, such as an Internet server, with the descriptor of the preset conditions for the desired DSC-printer pair to receive the desired preset conditions in response.

Stevenson ¶107 (quoting Fisher, [0053]). Accordingly, Fisher individually discloses and the Kuwata-Fisher combination renders obvious the claimed “specification data.”

Patent Owner argues that “Fisher does not teach updating ancillary data files in the camera’s memory *based on specification data that specifies new or updated ancillary data files to download*,” so Fisher “cannot suggest modifying Kuwata as

Petitioner proposes.” POR 26. Patent Owner is both factually wrong and misapplies the law. “[I]t is sufficient that a person of ordinary skill in the art would have been motivated to combine the prior art in a way such that the combination discloses the claim limitations.” *Fleming v. Cirrus Design Corp.*, 28 F.4th 1214, 1222 (Fed. Cir. 2022). The evidence cited in the Petition shows that is the case here.

Patent Owner’s reliance on *Motorola, Inc. v. Interdigital Tech Corp.*, 121 F.3d 1461, 1473 (Fed. Cir. 1997), is misplaced. POR 18-19, 35-36, 50. In *Motorola*, the accused infringer argued that a single reference, not a combination, disclosed one of the limitations. 121 F.3d at 1472-73. Because that reference “[i]ndisputably” did not describe what was claimed, the court overturned findings of anticipation and obviousness. *Id.* Contrary to what Patent Owner contends, nothing in *Motorola* precludes an obviousness determination where each limitation would have been obvious based on one or more references, even when a limitation is not explicitly disclosed. *See, e.g., KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (an obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim”); *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1337-38 (Fed. Cir. 2020) (skilled artisan’s “general knowledge” can “supply a missing claim limitation”); *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1219 (Fed. Cir. 2016) (a combination need not “unite old elements without changing their respective functions”); *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d

1324, 1329 (Fed. Cir. 2009) (obviousness “do[es] not necessarily require explication in any reference”).

Moreover, claim 10 lacks the “specification data” term recited in claim 1, so Patent Owner’s arguments about specification data do not apply to claim 10. POR 29-30. Patent Owner argues that “Fisher does not teach how to modify Kuwata to acquire these additional preset conditions.” POR 30. But Fisher discloses a camera that downloads ancillary data files from the Internet, providing all the necessary teachings for acquiring preset conditions. *E.g.*, Fisher, [0054]-[0057].

For these reasons, the Kuwata-Fisher combination teaches each disputed limitation in claims 1 and 10.

2. Patent Owner’s Arguments Against a Motivation to Combine Kuwata and Fisher Lack Merit

Patent Owner contends that a POSITA would not have been motivated to combine Kuwata and Fisher because Kuwata purportedly describes “a *self-contained* camera” and “*teaches away* from accessing an external server.” POR 26-29. That is wrong as a matter of law. Prior art does not teach away “if it merely expresses a general preference for an alternative invention but does not ‘criticize, discredit, or otherwise discourage’ investigation into the invention claimed.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (quoting *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)). Kuwata is silent on

accessing an external server and does not express any preference on the matter, let alone discourage accessing a server to download additional preset conditions. *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 964 (Fed. Cir. 2014) (“A motivation to combine may be implicit in the prior art—silence does not imply teaching away.”).

Patent Owner points only to Kuwata’s disclosure of the advantages to having the camera manufacturer store “the optimum combination of operational characteristics of a DSC-printer pair” on the camera “for later retrieval when the photographer identifies the target printer to be used for printing.” POR 27; Kuwata, [0075], [0077]. But this says nothing about how the DSC-printer pair *gets to the camera*. Contrary to Patent Owner’s argument, Kuwata’s statement would have *encouraged* looking to Fisher to enable Kuwata’s camera to download new or updated preset conditions from a server. Stevenson, ¶¶87-89. As Patent Owner’s expert acknowledged, camera users “very likely” “wouldn’t have been able to” identify the optimum combination of operational characteristics on their own for printers developed after they bought their camera. Ex. 1015, 71:17-72:7. The users would therefore have needed to rely on the manufacturer’s providing or updating new DSC-printer pair information. Fisher solves this problem because it discloses that manufacturers “may create various ancillary data files” and make them “available on a distributed computer network like the Internet for subsequent downloading and utilization by the camera device.” Fisher, [0008]. Combining

Kuwata and Fisher would have allowed users to obtain and store new and updated preset conditions developed after they purchased their camera. Stevenson, ¶¶87-89; *see* Ex. 2001, ¶49 (Kuwata’s preset conditions “provid[e] the flexibility to pair the camera and obtain optimal imaging results with multiple printers”).

Kuwata never touts itself as “a *self-contained* camera,” as Patent Owner contends. POR 27. To the contrary, Kuwata discloses that its camera may communicate with several other devices, including a computer PC, monitor, and printer, as depicted below. Kuwata, [0080]-[0081], [0085], [0115], [0133]. It also discloses an alternative embodiment where “the specification of the output control information of image file GF can be executed on a computer PC,” showing that Kuwata contemplates its camera interacting with other devices. *Id.*, [0139].

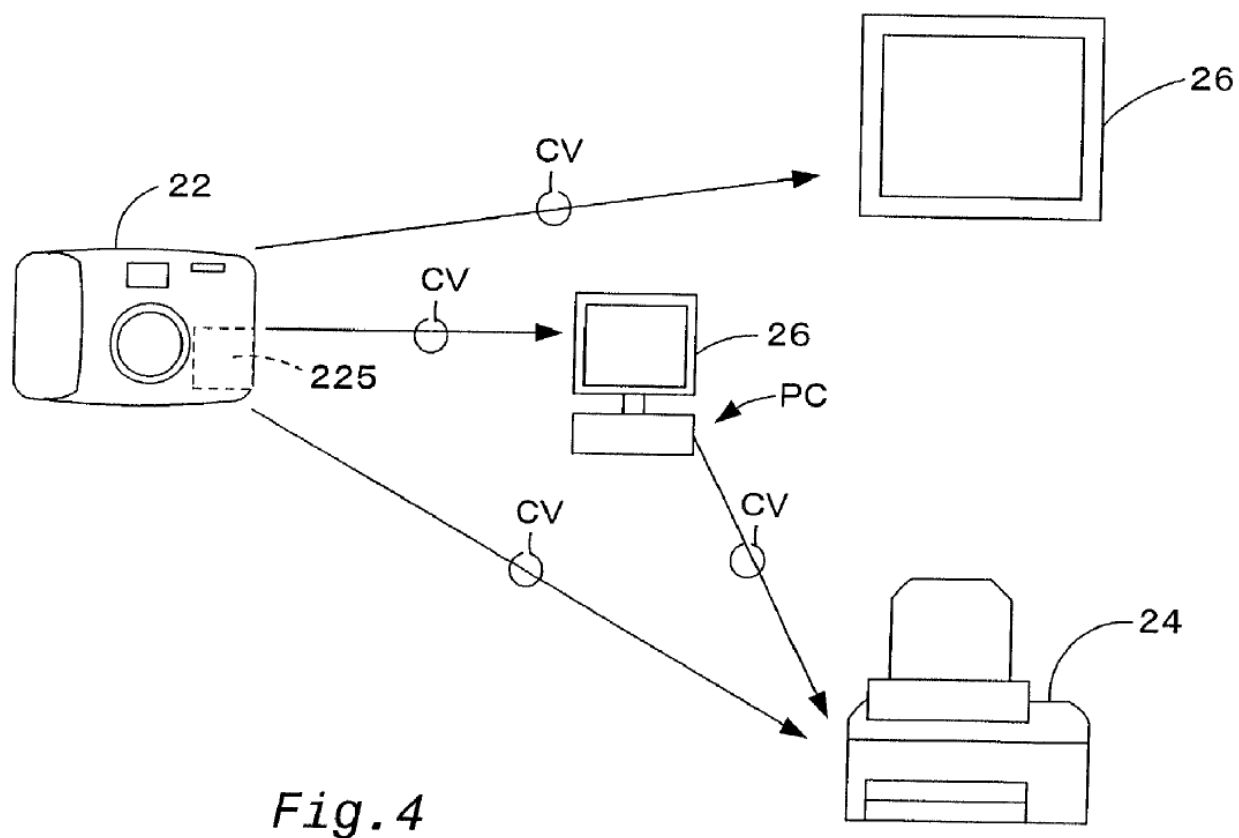


Fig. 4

Id., FIG. 4.

While Kuwata does not explicitly describe a camera downloading information from a server, it discloses that the camera includes an input/output (“I/O”) port, such as “a wireless port,” similar to Fisher’s “I/O interface(s) 348.” *Id.*, [0081]; Fisher, [0041]; Ex. 1015, 73:8-19. Kuwata’s I/O port would have allowed the camera to receive information, further negating Patent Owner’s teaching-away argument. Ex. 1015, 73:20-74:1; *see* Fisher, [0041].

Patent Owner also argues that the Petition does not “point[] to any suggestion in Kuwata to look off-camera for preset conditions corresponding to new

DSC/printer pairs.” POR 26. But the Supreme Court has long since rejected the requirement of an explicit “teaching, suggestion, [or] motivation” in the reference itself. *KSR*, 550 U.S. at 419. Patent Owner’s argument also disregards that the Petition points to teachings in Kuwata, Fisher, and other references that would have motivated a POSITA to combine Kuwata and Fisher in the manner proposed. Pet. 15-19, 24-27; *e.g.*, Fisher, [0007], [0030], [0042], [0044] (teaching that a camera connectable to a server to “download various types of ancillary data files” is “advantageous[]” to address “the growing demands on system functionality”).

The Petition points to ample evidence of a motivation to combine Kuwata and Fisher. Pet. 15-19, 24-27. Patent Owner’s “teaching away” argument does not pass muster.

3. Patent Owner’s Expectation-of-Success Arguments Lack Merit

Patent Owner argues that a POSITA would have lacked a reasonable expectation of success in combining Kuwata and Fisher because of purported difficulties “relating to printer drivers needed to match DSCs with particular printers.” POR 28-29. The purported issues Patent Owner raises regarding printer drivers are not claimed and are thus irrelevant to the reasonable-expectation-of-success inquiry. *See Allergan*, 754 F.3d at 966 (“failure to consider the appropriate scope of the ... claimed invention in evaluating the reasonable expectation of success

... constitutes a legal error”). Patent Owner also incorrectly premises these purported issues on Kuwata’s *camera* having a printer driver, even though Kuwata describes the printer driver as being located in the *printer*. POR 28; Kuwata, [0103], [0106], [0111].

Patent Owner argues that “Kuwata expressly teaches one printer driver, already on Kuwata’s self-contained camera, and a CPU that ‘sets the printing condition for the printer driver’ based on the output control information.” POR 28 (quoting Kuwata, [0111]) (citing Ex. 2001, ¶66). Patent Owner mistakenly points to disclosures about processes performed on the *printer* after receiving an image file generated in Kuwata’s camera. *See* Kuwata, [0097]-[0115] (describing “Image Processing by a Printer”). Accordingly, when Kuwata discloses that “CPU 30 references output control information CI, obtains the parameters relating to the type of printing medium (paper), resolution, and printing direction ..., and sets the printing conditions for the printer driver,” it is referring to the *printer’s* CPU setting the printing conditions for the *printer’s* printer driver based on parameters in the image file. *Id.*, [0111]. Kuwata discloses that the type of printer driver does not present any difficulties because, instead of using “the printer driver setting screen,” Kuwata’s camera may “use a file to specify the printing processing conditions to the printer” and thus “solve[s] problems of insufficient settings of printing processing conditions that could not be resolved only by correction of printing data image

quality characteristics.” *Id.*, [0077]; *see also id.*, [0118] (“[T]he printing conditions of printer 24 are set based on output control information CI, so it is not necessary for the user to set printing conditions such as type of printing medium, resolution, and printing direction on the printer driver setting screen.”).

Moreover, Patent Owner’s argument (even though incorrect) is inapplicable to the other output devices that Kuwata discloses, including “a CRT, LCD, or projector,” or to obtaining updated preset conditions for existing printers. *Id.*, [0133]; Pet. 24-27 (discussing updated preset conditions). For display devices, Kuwata discloses that “an image processing program (display driver) that executes image processing like that explained using FIGS. 9 and 10, for example, is executed.” *Id.*

Patent Owner’s argument is further undermined because the ’082 patent does not mention printer drivers even once, let alone claim them. If these so-called “well-known challenges as of the ’082 patent[’s] priority date relating to printer drivers needed to match DSCs with particular printers” existed, POR 28, the ’082 patent did not claim to solve them. Petitioner’s obviousness arguments need only be commensurate with the specificity provided in the patent. *See Soverain Software LLC v. Newegg Inc.*, 705 F.3d 1333, 1339 (Fed. Cir. 2013) (reversing nonobviousness finding because the patentee’s asserted “distinction” over the art was “not embodied in the claims and not reflected in the claim construction”).

B. Ohga's Input and Output Profiles Teach Image Processing Control Data

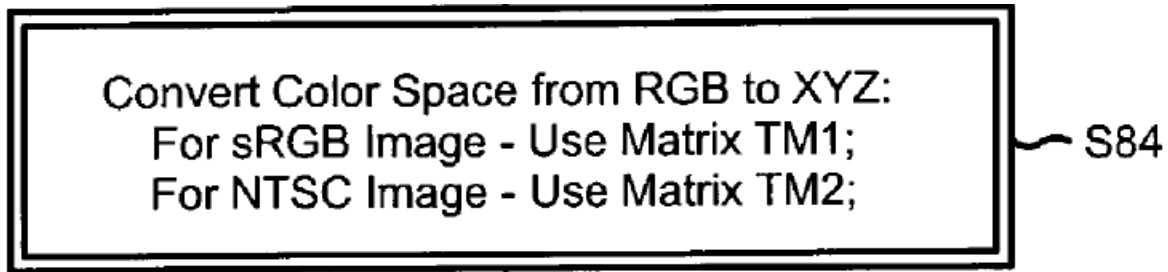
The DI invites the parties to address whether Ohga's profiles disclose "image processing control data." DI 30-33, 39, 41. Patent Owner contends that they do not because Ohga's input and output profiles are "parameters passed *into*" Ohga's color matching module ("CMM") program that "contains instructions to actually carry out the mapping from one device's color space to the other device's color space." POR 38-39. Patent Owner's own characterization of Ohga's profiles shows they disclose the claimed "image processing control data."

Ohga discloses an input profile P1 that "is associated with the image data J1" and whose format "matches or complies with that specified by International Color Consortium (ICC)." Ex. 1007 ("Ohga"), 3:37-47. Ohga also discloses an output profile P2 of an output device (e.g., monitor or printer). *Id.*, 3:15-18, 4:7-12, FIG. 7. Ohga's output profile likewise may be an ICC profile. POR 39 (referring to Ohga's "ICC input and output profiles"); *see also* Ex. 2003, 85:25-86:11. Ohga's profiles may include information like "color space characteristics," a "gamma coefficient," and the "XYZ value of white point." Ohga, 3:62-65; *see* Ex. 2001, ¶75 ("These profiles contain detailed color characterization data that describe how a specific device reproduces or captures color relative to a device-independent color space."); *see also id.*, ¶¶86-87; Ex. 2003, 80:6-81:12.

Ohga's input and output profiles disclose "image processing control data" because they control *how* Ohga's CMM program transforms (processes) the image data J1 from the color space of the input device (e.g., digital camera) to the output device (e.g., printer). Ohga discloses that the CMM program "executes color matching for the image data J1" based on the input and output profiles. Ohga, 4:3-12, FIGS. 6-7. As Patent Owner and its expert describe it, "[w]hen color data (e.g., images) moves between devices (like from a camera to a monitor to a printer), the CMM uses the source and destination ICC profiles [(i.e., the input and output profiles)] to calculate the necessary color transformations." Ex. 2001, ¶75; POR 44; *see* Ex. 1015, 91:12-92:10.

Ohga's description of how the CMM program uses the input and output profiles to transform the color space of the image data matches the '082 patent's disclosure of how a printer uses a color space parameter to transform the color space of the image data. The '082 patent describes a color space parameter identifying "the color space where the image data is defined" as one type of image processing control data. Ex. 1001, 5:59-64, 6:63-66, 7:3-18, 9:6-10, FIGS. 5A-5B, 7. When the '082 patent's printer receives an image file containing a color space parameter, the printer converts the image data "to an XYZ color space" using one of two conversion matrices stored on the printer. *Id.*, 9:60-10:2, FIG. 8 (S84). The printer selects which conversion matrix to use based on the value of the color space parameter. *Id.* This

process is depicted as step S84 of Figure 8, shown below. *Id.*, 9:60-10:4; *see id.*, 9:12-13 (“The processes according to the PIM [(i.e., image processing control data)] are depicted with double lines.”).



Id., FIG. 8 (cropped).

Ohga’s CMM uses the input and output profiles in the same way that the ’082 patent’s printer uses the color space parameter. Ohga, 4:3-12; Ex. 2001, ¶75 (“[T]he CMM uses the source and destination ICC profiles to calculate the necessary color transformations.”); Ex. 2004, 003 (disclosing that a CMM “combin[es] a source profile with a destination profile to enable input device data to be transformed to that required to give the required colour on output”). Ohga’s CMM program transforms the color space of the image data based on the input and output profiles by using the profiles “to calculate the necessary color transformations” to convert the image data “from one device’s color space to the other device’s color space.” Ohga, 4:3-5; POR 38, 44. This is like how the ’082 patent’s printer converts the color space of the image data using a conversion matrix (TM1 or TM2) selected based on the value of the color space parameter (sRGB or NTSC). *Id.*, 9:60-10:12.

Patent Owner incorrectly argues that a “profile cannot be ‘image processing control data,’ because the information in the profile is independent of other devices and does not in any way specify how to process the image data for rendering on another device.” POR 42. But the claim lacks either requirement. Moreover, Patent Owner’s argument conflicts with its own expert, who describes each of Ohga’s profiles as “a translator between a device’s color space and a standard color space.” Ex. 2001, ¶87. Accordingly, Ohga’s input profile controls how the CMM program converts the image data from the digital camera’s color space to a standard color space, and Ohga’s output profile controls how the CMM converts the image data from the standard color space to the output device’s color space. *Id.*; *see also id.*, ¶¶76-77 (stating that ICC profiles were “created for efficient color space transformations”); Ex. 2004, 003. Moreover, the fact that Ohga’s “device profiles,” in some embodiments, “are ‘determined independently of any images’” does not prevent them from being image processing control data. POR 42 (quoting Ex. 2004, 004). The ’082 patent, for example, similarly describes the gamma value that “represent[s] the characteristics of the digital still camera 10” as one type of image processing control data. Ex. 1001, 6:63-66, 9:27-30.

To the extent Patent Owner attempts to redefine “image processing control data” to require “software instructions for execution by a printer or other output device that actually control processing of the accompanying image data,” the Board

should reject that argument. POR 41; *see also* POR 40 (“Actual processing—or control of the underlying image data—requires not only a second profile (an output profile, e.g.) but the instructions for performing the image processing, which are part of the CMM”). The ’082 patent states that “[p]arameters to control the image processing are recorded as combinations of the name of the tag and the parameter value” in the image file, not as software instructions. Ex. 1001, 8:20-23, 8:48-60, FIGS. 5A-5B. The printer then uses the parameter values to perform various image processing steps. *See, e.g., id.*, 9:27-30 (performing “gamma correction” using the camera’s gamma value included in the control data), FIG. 8 (step S84) (selecting the matrix for color-space conversion based on the color space parameter). Even the ’082 patent’s “processing modes” are just predetermined sets of PIM parameters that are added to an image file when an image is captured with that mode selected. *Id.*, 8:61-9:10, FIG. 7.

The examples of image processing control data in the ’082 patent make clear that Ohga’s input and output profiles disclose image processing control data.

C. Patent Owner’s Arguments Regarding Ground 2’s Kuwata-Fisher-Ohga Combination Fail

1. Patent Owner Improperly Attacks the References Individually

Similar to its Ground 1 arguments, Patent Owner argues that Kuwata, Fisher, and Ohga purportedly do not teach claim 1’s recitation of “a storage manager

configured to update at least a part of the image processing control data ... based on specification data, which specifies the image processing control data to be updated.” POR 35-39. Patent Owner then refers back to these arguments when discussing the Kuwata-Fisher-Ohga combination for claim 10. POR 46-47. As before, Patent Owner improperly attacks the references individually rather than as a combination. Moreover, claim 10 lacks the “specification data” term recited in claim 1, so Patent Owner’s arguments about specification data do not apply to claim 10.

Patent Owner argues that Ohga’s teaching of specification data that specifies input and output profiles does not disclose the claimed “specification data, which specifies the image processing control data to be updated.” POR 36-39. This argument fails to address the combination in the Petition, which relies on Kuwata’s preset conditions for the “image processing control information,” not Ohga’s input and output profiles. *E.g.*, Pet. 56-58 (mapping the claimed “specification data” to information “that identifies new or updated preset conditions for a DSC-printer pair”). Accordingly, for Ground 2, it does not matter whether the input and output devices are image processing control data because, in the combination, the specification data specifies preset conditions to be updated. *Id.* Kuwata’s preset conditions are image processing control data, and Patent Owner does not argue otherwise. Kuwata, [0082]-[0084].

Patent Owner's argument is also factually flawed. As discussed in Section II.B, *supra*, Ohga's input and output profiles disclose image processing control data because they control how Ohga's CMM program transforms the image data from the color space of the input device to the color space of the output device. Ohga, 4:3-5; *accord* POR 44 ("When color data (e.g., images) moves between devices (from a camera to a monitor to a printer, e.g.), the CMM uses the source and destination ICC profiles to calculate the necessary color transformations."). Thus, Ohga discloses "specification data, which specifies the image processing control data to be updated." Pet. 56.

2. Patent Owner's Arguments Against a Motivation to Combine Kuwata and Fisher Lack Merit

Similar to Ground 1, Patent Owner contends that a POSITA would not have been motivated to combine Kuwata, Fisher, and Ohga because Kuwata purportedly describes "a self-contained camera" and "teaches away from modifying its system with external connectivity." POR 43-46. These arguments fail for the reasons discussed in Section II.A.2, *supra*.

Patent Owner also argues that "even had a POSITA wanted to further modify the Kuwata/Fisher combination, Ohga would not have provided the needed teachings" because of purported "incompatibilities between Kuwata's self-contained camera and Ohga's reliance on rigid, ICC-standardized color management."

POR 44. But the purported incompatibilities Patent Owner identifies do not apply to the proposed combination, which relies on Ohga simply for specification data. Pet. 56-58. The image processing control data that the specification data specifies is still the new or updated preset conditions, as taught by Kuwata in view of Fisher. *Id.* Accordingly, it does not matter whether ICC profiles can “extend to other visual attributes like material properties, transparency, or dynamic lighting effects” because the combination does not rely on ICC profiles. POR 44-45.

Indeed, the references are combinable because Ohga provides implementation details for Fisher’s “appropriate respective data-source content review procedures and ancillary-data file download procedures.” Fisher, [0057]. For example, Ohga discloses that profiles are “prepared in the server,” and the names of the profiles are associated with a corresponding profile on the server. Ohga, 3:51-58. The profile names are “presented to the user,” and “when the user selects a given profile name, the corresponding profile on the server is automatically loaded into the CMM program of the client.” *Id.* This would have taught, for example, how to present the names of the preset conditions on the server to the user and to download the desired preset conditions based on the specification data (e.g., the name of the selected preset conditions). Pet. 56-58.

Kuwata and Ohga also do not “reflect contradictory intents,” as Patent Owner contends. POR 45. Indeed, Kuwata discloses a printer performing a similar type of

color transformation as Ohga's CMM program. Kuwata, [0105]-[0108]; Ohga, 4:3-5; POR 44.

D. Patent Owner's Arguments Regarding Ground 3's Kuwata-Ohga Combination Fail

Patent Owner again improperly attacks the references individually to argue that Kuwata and Ohga do not disclose claim 7's recitation of "configured to acquire update data *of the image processing control data based on the attribute data from the server.*" POR 50-53.

First, Patent Owner repeats its argument that Ohga's input and output profiles are not image processing control data. POR 51. But as discussed in Section II.B, *supra*, Ohga's input and output profiles disclose image processing control data because they control how Ohga's CMM program transforms the image data from one color space to another. Ohga, 4:3-5; *see, e.g.*, POR 44.

Second, Patent Owner also argues that Petitioner improperly reads claim 7's "attribute data" in isolation, arguing that "Petitioner does not explain why the 'devices' names' (which Petitioner identifies as 'attribute data') are 'image processing control data' or 'identification data to identify the image processing control data.'" POR 51-52. But the Petition does explain this. The Petition shows that Kuwata discloses providing a PC with an image file that contains output control information CI, which includes image processing control data and identification

data. Pet. 67-68. The Petition also shows that it would have been obvious to combine Kuwata and Ohga “to have Kuwata’s camera provide the PC with ... attribute data that includes identification information, such as camera-identification information and/or printer-identification information.” Pet. 69. Providing the PC with “attribute data, like the names of the DSC and target printer, would have allowed the PC to acquire preset conditions for the DSC-printer pair based on the camera and printer information and add these preset conditions to the DSC-provided image file.” *Id.* The names of the camera and printer identify the preset conditions for that DSC-printer pair. That is all the claim requires for “attribute data.” *See* Ex. 1001, 13:6-10 (data that “includes at least one of the PIM and the identification data to identify the PIM” means that the “data includes predetermined data to specify the update data corresponding to the image data”).

While Petitioner mapped the attribute data to both, nothing in the claim requires the attribute data to include *both* image processing control data and identification data. The ’082 patent makes clear that the claimed “attribute data” is met if it includes *either* image processing control data *or* identification data. The specification explains that the “[t]he image processing may [be] conducted in *either of two ways*” (emphasis added):

The first way is to input image related data including the image processing control data therein, and to modify the

image processing control data. The second way is to input image related data including the identification data therein, and to change the identification data to the image processing control data corresponding to the identification data.

Id., 3:19-25; *see also id.* 3:9-14 (using language that mirrors claim 7).

Third, Patent Owner also argues that “a POSITA would not have been motivated to combine Kuwata with Ohga for [the] reasons discussed” in the Kuwata-Fisher-Ohga ground. POR 52-53. Those arguments fail for the reasons discussed in Section II.C.2, *supra*.

E. Patent Owner’s Arguments Regarding Ground 4’s Ohga-Kuwata Combination and Regarding Grounds 5-6 Based on Ohga Each Fail

Patent Owner’s arguments against the Ohga-Kuwata combination challenging claim 8 and the grounds challenging claim 9 based on Ohga all depend on its argument that Ohga’s input and output profiles are not image processing control data. POR 53-59. But as discussed in Section II.B, *supra*, Ohga’s input and output profiles disclose image processing control data because they control how Ohga’s CMM program transforms the image data from the color space of the input device to the color space of the output device. Ohga, 4:3-5; *see, e.g.*, POR 44.

F. Patent Owner’s Arguments Regarding Dependent Claims 2-6 Also Fail

Patent Owner argues that dependent claims 2-6 “are unpatentable for the same reasons as claim 1.” POR 31-33, 47-50. Because Patent Owner’s arguments fail for claim 1, its arguments for the dependent claims likewise fail.

In addition, for claim 6, Patent Owner also argues that “Petitioner’s expert conceded during his deposition that he was unaware of any disclosure in Fisher of uploading ancillary data files—and therefore the included descriptors—from Fisher’s camera to another device on the network such as a server.” POR 33 (citing Ex. 2003, 76:5-77:3). This mischaracterizes Dr. Stevenson’s testimony. When asked if he was “aware of any disclosure in Fisher of uploading ancillary data files from the camera to another location,” Dr. Stevenson testified that he could not find where he relied on Fisher uploading ancillary data files in his declaration and would need to reread Fisher to answer the question. Ex. 2003, 76:5-77:3.

Moreover, Petitioner’s obviousness combination for dependent claim 6 relies on sending specification data to a server to *download* preset conditions for a DSC-printer pair, not *uploading* ancillary data files. *See* Pet. 41-42. For the reasons discussed in Sections II.A and II.C, *supra*, Patent Owner’s arguments regarding claim 6 fail.

III. CONCLUSION

For the reasons explained above and in the Petition, claims 1-10 of the '082 patent should be canceled.

Date: July 18, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24, Petitioner certifies that the word count of Petitioner's Reply to Patent Owner's Response (exclusive of any table of contents, table of authorities, mandatory notices under § 42.8, certificates of service and word count, and list of exhibits or claim listing) as measured by Microsoft Word is 5,566.

Date: July 18, 2025

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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Petitioner's Reply to Patent Owner's Response and Exhibits 1015-1016** were served via email directed to counsel of record for the Patent Owner at the following:

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