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Paper 7
Entered: January 8, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

138 EAST LCD ADVANCEMENTS LIMITED,
Patent Owner.

IPR2024-00959
Patent 7,428,082 B2

Before KRISTEN L. DROESCH, GEORGE R. HOSKINS, and CHRISTOPHER M. KAISER, *Administrative Patent Judges*.

HOSKINS, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner Google LLC has filed a Petition (Paper 1, "Pet.") pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of U.S. Patent No. 7,428,082 B2 (Ex. 1001, "the '082 patent"), claims 1–10.

Patent Owner 138 East LCD Advancements Limited filed a Preliminary Response (Paper 6, "Prelim. Resp.") opposing institution of review.

Pursuant to 35 U.S.C. § 314(a), institution of review requires the information in the record to demonstrate a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. Applying that standard on behalf of the Director (37 C.F.R. § 42.4(a)), we institute an *inter partes* review to determine whether Petitioner demonstrates by a preponderance of the evidence that claims 1–10 are unpatentable, considering all grounds in the Petition.

II. BACKGROUND

A. Real Parties-in-Interest and Related Proceedings

Petitioner identifies itself (i.e., Google LLC) as a real party-in-interest. *See* Pet. 83. Patent Owner identifies itself (i.e., 138 East LCD Advancements Limited) and Longitude Licensing Limited as real parties-in-interest. *See* Paper 4, 1.

The parties also identify *Longitude Licensing Ltd. v. Google LLC*, Case No. 3:23-cv-03046 (N.D. Cal.), Case No. 24-1202 (Fed. Cir.), as a related matter. *See* Pet. 83; Paper 4, 1.

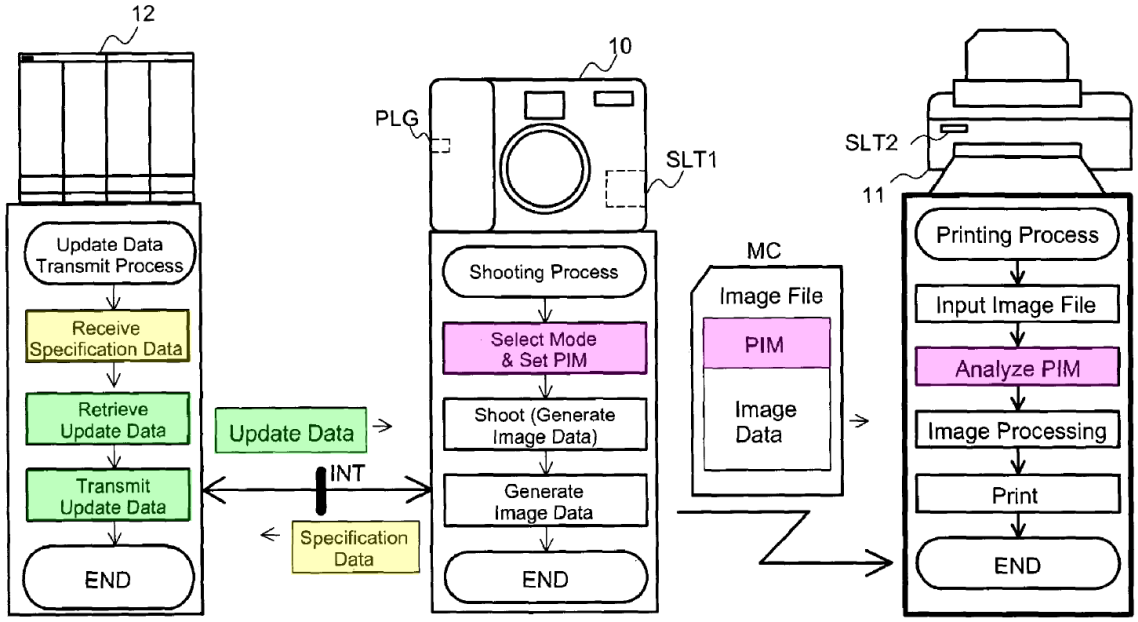
Petitioner has filed six other IPR challenges to patents owned by Patent Owner. They are IPR2024-00955 (U.S. Patent No. 7,668,365 B2);

IPR2024-00956 (U.S. Patent No. 8,355,574 B2); IPR2024-00957 (U.S. Patent No. 7,454,056 B2); IPR2024-00958 (U.S. Patent No. 8,482,638 B2); IPR2024-00960 (U.S. Patent No. 7,486,807 B2); and IPR2024-00961 (U.S. Patent No. 7,945,109 B2).

B. The '082 Patent Specification

The '082 patent is directed to devices and processes for updating image processing control data. *See* Ex. 1001, codes (54) and (57). Figure 1 of the '082 patent is reproduced below, with our color annotations added.

Fig.1



'082 Patent, Figure 1 (Annotated in Color).

Figure 1 illustrates an image output system including digital still camera 10, color printer 11, and update data storage server 12. *See id.* at 4:58–59, 5:45–52.

Camera 10 generates an image file and transmits it to printer 11 via memory card MC. *See id.* at 5:48–49, 5:52–53, 6:42–57 (Fig. 2). "Two kinds of data are related and stored in the image file" — (1) "image data";

and (2) "image processing control data (hereinafter referred to as 'PIM parameters' or 'PIM'" (pink).[1] *Id.* at 5:59–62, 6:58–62. The image processing control data may be set by the user of camera 10, and it "is used to control image processing of the image data that the printer 11 executes." *Id.* at 5:62–64, 6:14–18, 6:59–60. Exemplary image processing control data includes: "gamma values," "parameters for contrast and color balance," and "color space parameters," as well as "various parameters related to the shooting condition: exposures, white balances, apertures, shutter speeds, and zoom settings." *Id.* at 6:63–7:2.

In one example, a user of camera 10 can set an image processing mode that defines the PIM to be used when an image file is generated. *See id.* at 8:62–9:3 (Figs. 6A–6B). Exemplary image processing modes include "Standard", "Portrait", "Landscape", and "Sunset." *Id.* at 8:66–9:2. Figure 7 of the '082 patent is reproduced below.

Fig. 7

Preset No.	Parameters				Suitable Situations
	Gamma Correction	Color Space	Contrast	Color Balance	
1	OFF	NTSC	Standard	Standard	Standard
2	1.2	sRGB	Slightly Lower	Standard	Portrait
3	0.9	sRGB	Slightly Higher	Standard	Landscape
4	1.1	NTSC	Standard	OFF	Sunset

'082 Patent, Figure 7.

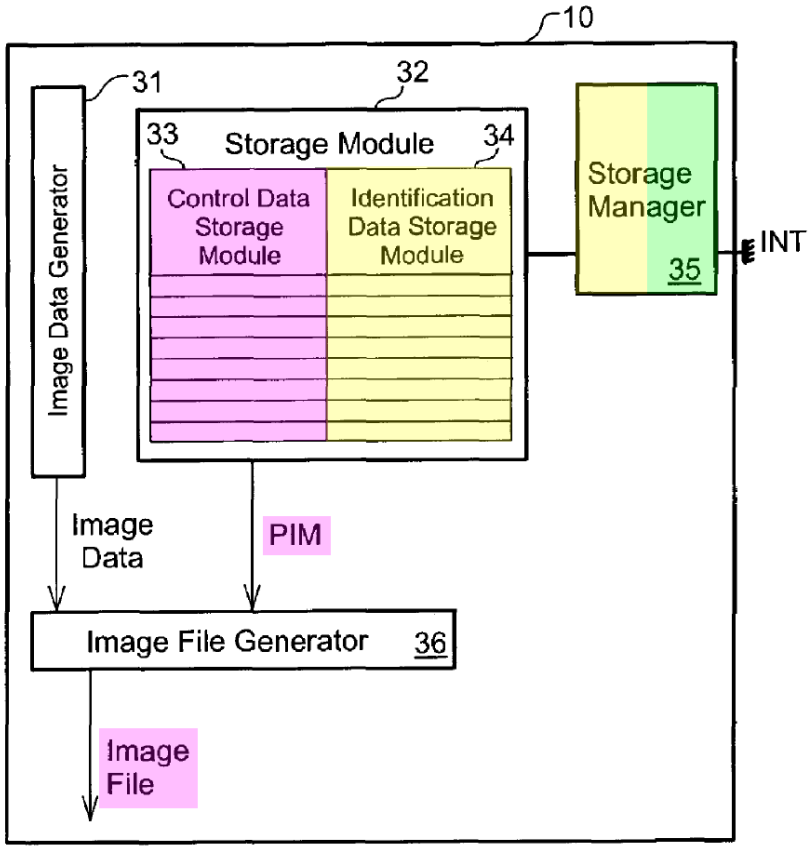
[1] The '082 patent does not appear to define the "PIM" acronym, but Patent Owner suggests it means "Print Image Matching." Prelim. Resp. 3.

Figure 7 "shows an example of the parameters of the PIM" (gamma correction, color space, contrast, and color balance) that respectively correspond to the Standard, Portrait, Landscape, and Sunset processing modes. *Id.* at 9:4–10.

Camera 10 communicates with server 12 through network INT to update the image processing control data stored on the camera. *See id.* at 5:50–57, 6:26–35. To accomplish this, camera 10 sends "specification data" (yellow) to server 12, which "includes predetermined information that specifies the update data to be sent," and "may include a part of the PIM, or identification data to identify the PIM." *Id.* at 6:26–31. Server 12 "retrieves the update data [(green)] according to the received specification data and determines the update data," and sends it to camera 10. *Id.* at 6:31–35.

Figure 3 of the '082 patent schematically shows the function blocks of camera 10 (*see id.* at 4:62–63, 7:19–23), and is reproduced below (on the next page) with our color annotations added.

Fig.3



'082 Patent, Figure 3 (Annotated in Color).

Figure 3 illustrates camera 10 as including control data storage module 33 that "stores the PIMs" (pink). *See id.* at 7:27–29. When image data generator 31 is utilized to generate image data, image file generator 36 generates an image file that records the generated image data along with the PIM related to the image data, for outputting to printer 11. *See id.* at 7:29–32, Fig. 1 (illustrating "Image File" as including "Image Data" and "PIM").

Camera 10 also includes storage manager 35 (yellow and green) which "manages the PIMs stored in the control data storage module 33 by storing update data" (green) received from server 12, utilizing "identification data" stored in module 34 (yellow) as the specification data that identifies the PIM to be updated, as described above. *See id.* at 7:34–61.

C. The '082 Patent Claims

The '082 patent lists ten claims, all of which are challenged in the Petition. *See* Ex. 1001, 15:7–16:61; Pet. 1. They include independent claim 1 and its dependent claims 2–6, and independent claims 7–10.

Independent claim 1 illustratively recites:

> 1. An image related data generator, connectable to a server, comprising:
>
> an image data generator configured to generate image data;
>
> a control data storage module pre-storing image processing control data to control image processing of the image data;
>
> a relating module configured to relate the image data to the image processing control data; and
>
> a storage manager configured to update at least a part of the image processing control data stored in the control data storage, based on specification data, which specifies the image processing control data to be updated,
>
> wherein the image processing control data is to be used in processing of the image data by an image processing device that receives the image data and the image processing control data that are transferred from the image related data generator.

Ex. 1001, 15:8–23.

D. Asserted Prior Art

Petitioner relies on the following three references as prior art against the '082 patent. *See* Pet. 1.

Name	**Reference**	**Exhibit No.**
Kuwata	US 2002/0030833 A1	1005
Fisher	US 2001/0025303 A1	1006

Name	Reference	Exhibit No.
Ohga	US 6,788,305 B1	1007

Patent Owner does not dispute at this time that these references are prior art against the '082 patent. *See* Prelim. Resp. *generally*.

E. Asserted Grounds

Petitioner asserts the following six grounds of unpatentability. *See* Pet. 1.

35 U.S.C. §[2]	Reference(s)	Claim(s) Challenged
103(a)	Kuwata, Fisher	1–3, 5, 6, 10
103(a)	Kuwata, Fisher, Ohga	1–6, 10
103(a)	Kuwata, Ohga	7
103(a)	Ohga, Kuwata	8
102	Ohga	9
103(a)	Ohga	9

F. Testimonial Evidence

Petitioner relies on the proffered expert witness testimony of Robert Stevenson, Ph.D. (Exhibit 1003). Patent Owner does not rely on opposing expert witness testimony at this time.

[2] Amendments to 35 U.S.C. §§ 102 and 103 enacted by the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA") took effect in March 2013. The '082 patent issued from an application filed in 2003. *See* Ex. 1001, code (22). Therefore, we apply the pre-AIA versions of §§ 102 and 103.

III. PETITIONER'S GROUNDS OF UNPATENTABILITY

A. Legal Standards — Petitioner's Burden

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). This burden of persuasion never shifts to the patent owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

B. Legal Standards — Anticipation

A patent claim is unpatentable as anticipated under 35 U.S.C. § 102 "if each and every limitation is found either expressly or inherently in a single prior art reference." *WhitServe, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 21 (Fed. Cir. 2012) (quoting *Celeritas Techs., Ltd. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998)). An anticipatory reference must further "disclose those elements 'arranged as in the claim.'" *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

C. Legal Standards — Obviousness

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness, if made available in the record, which has not happened here. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

D. Level of Ordinary Skill in the Art

Petitioner contends a person having ordinary skill in the art pertaining to the '082 patent "would have had at least a bachelor's degree in electrical engineering, computer science, or related engineering disciplines, and two years of experience in digital image processing," wherein "[r]elevant work experience can substitute for formal education and additional education could substitute for work experience." Pet. 5; Ex. 1003 ¶ 60.

"Patent Owner does not dispute the level of skill for a person of ordinary skill in the art . . . set forth in the Petition." Prelim. Resp. 11–12.

For purposes of this Decision, we adopt Petitioner's assessment of the level of ordinary skill in the art, as it appears to be consistent with the '082 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

E. Claim Construction

We interpret the '082 patent claims "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b). This "includ[es] construing the claim in accordance with the ordinary and customary

meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.*

Petitioner argues "[n]o terms need construction to resolve the unpatentability issues" raised in the Petition. Pet. 6.

Patent Owner contends "[n]o claim term requires express construction to deny institution" and "the claim terms should receive their ordinary and customary meaning in light of the specification and prosecution history, as understood by a person of ordinary skill in the art." Prelim. Resp. 11. Patent Owner does not proffer any constructions for particular terms. *See id.*

Based on the arguments and evidence presented at this time, we determine no explicit construction is needed to resolve the parties' controversy. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

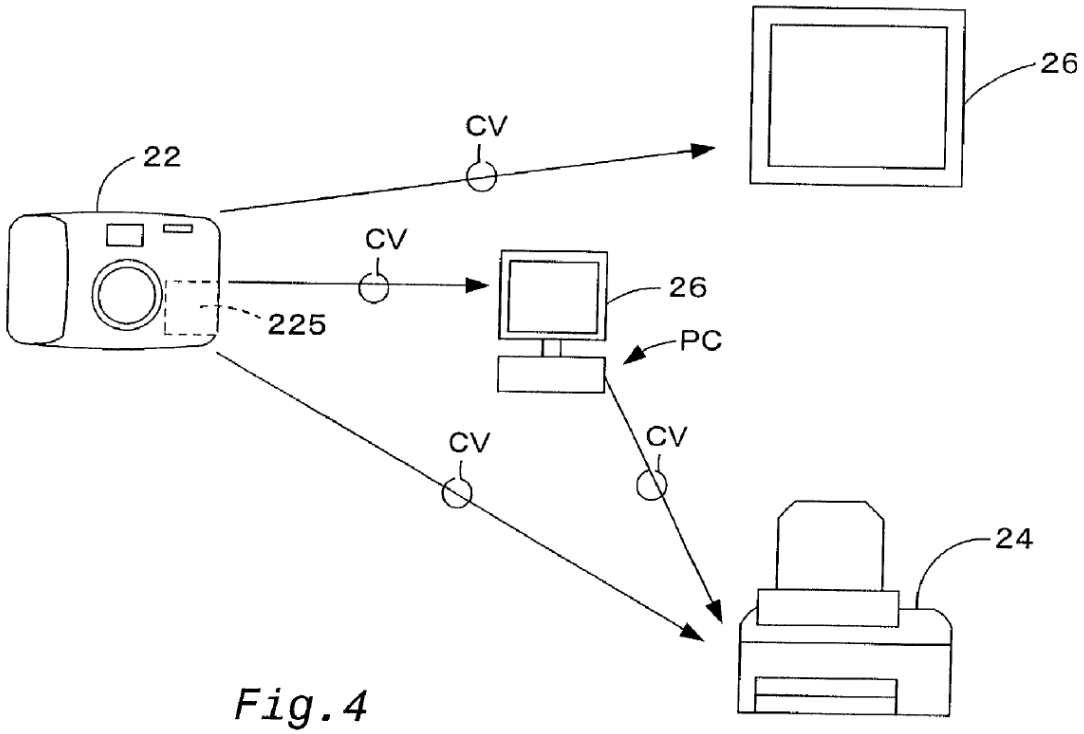
F. Ground One — Obviousness over Kuwata and Fisher

In Ground One, Petitioner asserts claims 1–3, 5, 6, and 10 of the '082 patent are unpatentable as having been obvious over Kuwata and Fisher. *See* Pet. 1, 6–54. Patent Owner disagrees. *See* Prelim. Resp. 12–22.

We summarize the disclosures of Kuwata and Fisher. Then we consider the parties' competing contentions, and we conclude the record demonstrates a reasonable likelihood that Petitioner would prevail with respect to at least claim 1. Therefore, we grant the petitioned *inter partes* review.

1. Kuwata

Kuwata is directed to an apparatus such as a camera that generates "an image file that can correctly reproduce image data at a predetermined output device" such as a printer or a display, with "optimal image output results according to a paired-combination of the [camera] and output device, taking into consideration their respective image processing characteristics." Ex. 1005, code (57), ¶¶ 1–2. Figure 4 of Kuwata is reproduced below.

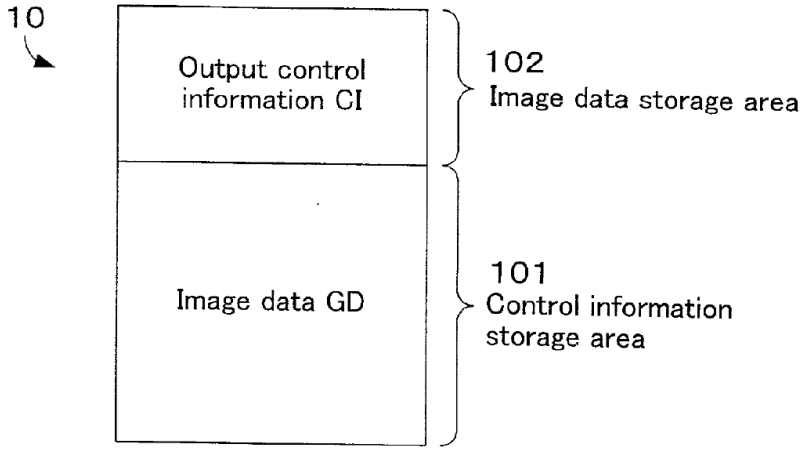


Kuwata, Figure 4.

Figure 4 illustrates image data output system 20 consisting of digital still camera (DSC) 22 that generates image files, and image output devices such as printer 24 and monitors 26, communicating via cables CV or other means. *Id.* ¶¶ 2, 79–80, 85.

Figure 1 of Kuwata illustrates an image file produced by camera 22 to be sent to an output device, and is reproduced below (on the next page). *See id.* ¶¶ 66, 68, 79.

Fig. 1



Kuwata, Figure 1.

Figure 1 is a conceptual diagram showing the internal structure of image file GF/10, including image data storage area 101 that stores image data GD and control information storage area 102 that stores output control information CI.[3] *See id.* ¶ 66.

"Output control information CI is information that specifies the image output conditions and image output status for an output device so as to be able to obtain the optimum image output results," accounting for the particular camera and the particular output device being utilized, including "a correct color reproduction." *Id.* ¶ 67. This information can include "image characteristic related information" such as "parameters related to gamma values or the target color space" as well as "parameters relating to stored color correction" (e.g., shadow points, highlights, brightness, saturation, contrast, color balance adjustment, and sharpness). *Id.* ¶¶ 67, 75.

[3] In Figure 1, the positions of the phrases "Image data storage area" and "Control information storage area" should be switched to match the written description (¶ 66).

"DSC manufacturers are best suited to identify the optimal processing settings by observing the results of the DSC when used with a particular printer," utilizing "a trial and error process," in order "to reduce the difference in [appearance] between the display image confirmed on a digital still camera monitor and the output image output using an output device such as a printer." *Id.* ¶¶ 75, 77. In this way, "it is possible to achieve printing results that more accurately reflect the intention of the person who generated the image file," "without need for separate photo retouching work." *Id.* ¶ 77. In particular: "[T]he DSC vendor does the matching once, so thousands of DSC photographers never have to do it, yet the photographers can be guaranteed that the results will be optimal for the DSC-printer pair." *Id.*

2. Fisher

Fisher is directed to a system and method for utilizing ancillary data with an electronic camera device, such as image template files, text overlay files, image background files, and special program instruction files. *See* Ex. 1006, codes (54) and (57). The system may be implemented "on an distributed computer network like the Internet" so the camera "may then utilize an ancillary data module to access, select, and download the ancillary data files from [a remote] data source for subsequently combining with other captured image data to thereby produce new composite images." *Id.* at code (57), ¶¶ 2–3, 8.

Fisher's camera "may perform various on-line management procedures with the ancillary data files" including "any appropriate processes or functionalities." *Id.* ¶ 10. Thus, the camera's ancillary data

module "may preferably control and coordinate ancillary data management procedures to download various types of ancillary data from various external data sources." *Id.* ¶ 33. The ancillary data files "may preferably include any appropriate information, data, or instructions to facilitate successful operation of [the] camera." *Id.* ¶ 34. Thus, exemplary ancillary data module 416 includes download manager 512 that "coordinate[s] the accessing, selecting, downloading, analyzing, and storing of various types of ancillary data files 418 from any appropriate data source" utilizing the Internet. *Id.* at Figs. 4–5, ¶¶ 36–37. "Download manager 512 may then responsively identify and store the downloaded ancillary data files 418 into" the camera's memory. *Id.* ¶ 37.

As shown in Figure 7, ancillary data files 418 may include individual sets of data 714 and associated descriptors 712. *Id.* ¶¶ 48–49. "For example, a descriptor 712 may include information regarding the nature of the associated data 714, such [as] a data format or a data type" as well as "information regarding how the associated data 714 is organized, such [as] a data structure." *Id.* ¶ 53. "[A]ncillary data module 416 may advantageously analyze downloaded ancillary data files 418 using descriptors 712 and other means to thereby update camera menus 424, and otherwise provide current information to a system user for effectively utilizing the ancillary data files 418." *Id.*; *see also id.* ¶¶ 12, 60 ("A display manager may responsively update camera device menus for display in a camera viewfinder to thereby include any changes in the locally-stored ancillary data files.").

3. Claim 1

Petitioner provides arguments and evidence in support of contending claim 1 is unpatentable as having been obvious over Kuwata and Fisher, including supporting testimony from Dr. Stevenson. *See* Pet. 6–30; Ex. 1003 ¶¶ 65–75, 81–115. Patent Owner opposes. *See* Prelim. Resp. 12–20. For the following reasons, we conclude Petitioner has demonstrated a reasonable likelihood of prevailing on its assertions for claim 1.

(i) Petitioner's Unopposed Reliance on Kuwata

Petitioner relies on Kuwata as disclosing various limitations recited in claim 1, and Patent Owner does not oppose these contentions. For the following reasons, we conclude these presently unopposed contentions are supported sufficiently by the cited disclosures in Kuwata and by Dr. Stevenson's testimony to justify institution of review.

The preamble of claim 1 refers in part to "[a]n image related data generator." Ex. 1001, 15:8–9. Assuming the preamble is limiting, we find Kuwata's camera 22 is an image related data generator. *See* Pet. 13–14 (citing Ex. 1005, Fig. 4, ¶¶ 19, 80–81, 85); Ex. 1003 ¶¶ 82–83. We also find Kuwata's camera 22 "includes 'I/O' and 'wireless' ports for communicating [with other devices] via wired or wireless channels, but [Kuwata] does not expressly disclose being connectable to a server," which is further recited in the preamble. Pet. 14 (citing Ex. 1005 ¶¶ 81, 85); Ex. 1003 ¶ 84.

Claim 1 next recites that the claimed generator comprises "an image data generator configured to generate image data." Ex. 1001, 15:10. We find Kuwata's camera 22 correspondingly includes, as shown in Figure 5, optical circuit 221, image obtaining circuit 222, image processing

circuit 223, and control circuit 224 that work together to generate image data. *See* Pet. 19–20 (citing Ex. 1005, Fig. 5, ¶¶ 15, 81, 90); Ex. 1003 ¶¶ 92–93.

Claim 1 also recites that the claimed generator comprises "a control data storage module pre-storing image processing control data to control image processing of the image data." Ex. 1001, 15:11–13. We find Kuwata's camera 22 correspondingly includes a memory within control circuit 224 that stores preset control parameter values, which are image processing control data to control image processing of the image data. *See* Pet. 20–21; Ex. 1003 ¶¶ 94–97. For example, Kuwata's preset control parameter values include output conditions that are optimized for outputting images with particular printer 24 model(s). *See* Pet. 16, 20–21 (citing Ex. 1005 ¶¶ 13–14, 75, 77, 82–83, 89, 116); Ex. 1003 ¶¶ 87, 95. Further, Kuwata's camera 22 stores the preset control parameter values in image file GF/10 generated by the camera, as part of output control information CI, to control the output of printer 24. *See* Pet. 21 (citing Ex. 1005, Figs. 8 and 10, ¶¶ 30, 82, 88–90, 93, 96, 101, 105, 109, 116); Ex. 1003 ¶ 96.

Claim 1 further recites that the claimed generator comprises "a relating module configured to relate the image data to the image processing control data." Ex. 1001, 15:14–15. We find Kuwata's camera 22 correspondingly includes control circuit 224 which "relates image data GD to output control information CI that includes the selected preset conditions (image processing control data)," and stores the image data with the control information as image file GF/10. Pet. 22 (citing Ex. 1005, Fig. 1, ¶¶ 15, 71–73, 80–82, 89–93); Ex. 1003 ¶¶ 98–100.

Claim 1 moreover recites that "the image processing control data is to be used in processing of the image data by an image processing device that receives the image data and the image processing control data that are transferred from the image related data generator." Ex. 1001, 15:19–23. We find Kuwata's camera 22 correspondingly creates image file GF/10 containing image data GD and output control information CI, and transfers image file GF/10 to printer 24, which then processes image data GD based on output control information CI to print a corresponding image. *See* Pet. 27–30 (citing Ex. 1005, Figs. 1, 4, and 10, ¶¶ 55, 81–85, 93, 98, 101, 103–119); Ex. 1003 ¶¶ 111–114. "For example, the printer 'executes gamma correction and matrix operation M' using 'control parameters within output control information CI.'" Pet. 28–29 (citing Ex. 1005 ¶ 103); Ex. 1003 ¶ 113.

In short, we find based on the preliminary record presented that Kuwata's camera 22 corresponds to the image related data generator recited in claim 1, except Kuwata does not disclose that camera 22 is "connectable to a server" (Ex. 1001, 15:8), or that it includes "a storage manager configured to update at least a part of the image processing control data stored in the control data storage, based on specification data, which specifies the image processing control data to be updated" (*id.* at 15:16–19).

(ii) Petitioner's Opposed Combination of Kuwata and Fisher

(a) Petitioner's Contentions

Petitioner contends that "[m]aking Kuwata's camera connectable to a server would have been obvious to a [person of ordinary skill in the art] in view of Fisher." Pet. 14; Ex. 1003 ¶ 84. In support, Petitioner asserts

Kuwata and Fisher are both directed to digital cameras, and "Fisher's camera uses an I/O interface to communicate with 'an external entity[,] such as an Internet server,' to 'download various types of ancillary data files 418 and other information.'" Pet. 14–15 (citing Ex. 1006, Fig. 2, ¶¶ 23, 26–28, 42, 44); Ex. 1003 ¶¶ 84–85.

Petitioner argues a person of ordinary skill in the art would have been motivated to implement Fisher's server connectivity in Kuwata's camera to allow it to download ancillary data files "that update camera data 'to facilitate successful operation' of the camera and improve outputs on different output devices." Pet. 15–16 (citing Ex. 1006 ¶¶ 8, 34, 42, 44); Ex. 1003 ¶¶ 86–89. For example, according to Petitioner, this "would have been desirable to ensure that the camera includes 'preset conditions' for a particular printer used by the user to accurately reproduce a captured image." Pet. 16 (citing Ex. 1005, code (57), ¶¶ 13–14, 75, 77, 82–83, 96, 116); Ex. 1003 ¶¶ 86–87. This would have improved Kuwata's camera, according to Petitioner, by allowing it to update various preset conditions for printers released after the camera was manufactured or otherwise not already stored in the camera's memory. *See* Pet. 17, 22–23 (citing Ex. 1005 ¶¶ 6, 11, 75, 77, 102; Ex. 1006 ¶ 8); Ex. 1003 ¶ 88.

Petitioner further asserts this modification of Kuwata's camera in light of Fisher would provide, as recited in claim 1, "a storage manager configured to update at least a part of the image processing control data stored in the control data storage, based on specification data, which specifies the image processing control data to be updated." Ex. 1001, 15:16–19; *see* Pet. 23–26; Ex. 1003 ¶¶ 103–108. This is because, according to Petitioner, Fisher's camera "includes an ancillary data module 416

(storage manager) that updates at least a part of the ancillary data files (image processing control data) stored in the camera's memory (control data storage) . . . from data sources, like a server." Pet. 23 (citing Ex. 1006 ¶¶ 36–37, 44, 55, 57); Ex. 1003 ¶ 103. Further, "[t]he data within [Fisher's] ancillary data files 418 includes 'any appropriate information, data, or instructions to facilitate successful operation of camera device 110,' and correspond to Kuwata's preset conditions (image processing control data to be updated)." Pet. 23 (citing Pet. 13–19 (§ V.A.4.a); Ex. 1006 ¶¶ 8, 34, 49–50); Ex. 1003 ¶ 103.

Petitioner moreover contends Fisher's ancillary data module 416 "downloads an ancillary data file from the Internet server *based on specification data*" as required by claim 1 (emphasis added), "such as a 'descriptor' associated with a 'respective set of data,' that corresponds to the user's selection." Pet. 23–24 (citing Ex. 1006 ¶¶ 10, 23, 37, 39, 49, 53, 60); Ex. 1003 ¶ 104. Petitioner asserts a person of ordinary skill in the art would have been motivated to implement this updating method in Kuwata's camera, in order "to update the preset conditions for DSC-printer pairs stored in memory with new or updated preset conditions." Pet. 24–25 (citing Pet. 13–19 (§ V.A.4.a); Ex. 1005, code (57), ¶¶ 13–14, 75, 77, 82–83, 89, 96; Ex. 1006 ¶¶ 8, 36–37, 49–50, 53, 55, 57, 59–60); Ex. 1003 ¶¶ 105–107. For example, this would have been known "to account for printers not stored in camera memory (e.g., later-developed printers) or to update the manufacturer-identified preset conditions for printing." Pet. 25 (citing Ex. 1005 ¶¶ 75, 77; Ex. 1006 ¶ 8); Ex. 1003 ¶ 108.

Petitioner finally asserts this could have been done with a reasonable expectation of success. *See* Pet. 18–19, 26–27 (citing Ex. 1005 ¶¶ 77, 81, 85; Ex. 1006 ¶¶ 8, 23, 40, 44); Ex. 1003 ¶¶ 90–91, 109–110.

(b) Patent Owner's Opposition

Patent Owner contends Petitioner "does not show that Kuwata in view of Fisher renders obvious" the storage manager limitation of claim 1. Prelim. Resp. 16 (section heading, formatting modified). In Patent Owner's view, Petitioner's combination of Kuwata and Fisher relies solely on Fisher's ancillary data files as disclosing the claimed "image processing control data" and on Fisher's camera memory as disclosing the claimed "control data storage." *See id.* at 16–17 (citing Pet. 22–23).

Patent Owner then asserts Fisher's ancillary data files do not contain "image processing control data," as that term is defined in claim 1. *See id.* at 17–18. Patent Owner argues Fisher's ancillary data files include "image template files, text overlay files, image background files, and special program instruction files" that are "combin[ed] with image data that is captured by camera device 110 to thereby produce composite images." *Id.* at 17 (citing Ex. 1006 ¶¶ 23, 50). By contrast, according to Patent Owner, claim 1 defines image processing control data as "data used 'to control image processing of the image data.'" *Id.* at 18 (citing Ex. 1001, 15:11–13). Patent Owner argues the '082 patent specification differentiates between Fisher's *image data* and the claimed *image processing control data*, wherein the latter corresponds to "parameters specific to image processing" such as "gamma correction, color space, contrast and color balance." *Id.* at 17–18 (citing Ex. 1001, 1:24–28, 5:46–65, 9:4–10 (Fig. 7)).

Patent Owner further argues "the Petition's suggestion that a [person of ordinary skill in the art] would have been motivated to combine Kuwata with Fisher to 'download new or updated preset conditions for a DSC-printer pair' from a server overlooks key teachings in Kuwata that suggest the opposite." *Id.* at 18–19 (citing Pet. 24, 26). In particular, Patent Owner asserts Kuwata "teach[es] *away* from adding new features to the camera and instead emphasize[s] storing all available information about DSC/printer pairs directly on the camera," based on the camera manufacturer performing "the laborious process of identifying the optimum combination of operational characteristics" "once, so thousands of DSC photographers never have to do it." *Id.* at 19 (citing Ex. 1005 ¶¶ 75, 77); *see also id.* at 13–15 (same). Patent Owner argues "Fisher's teachings point in precisely the opposite direction," i.e., *limiting* the amount of data stored on a digital camera by storing ancillary data on a remote server. *See id.* at 19–20 (citing Ex. 1006 ¶¶ 5, 31); *see also id.* at 16 (same). Patent Owner faults Petitioner's argument for failing to address these allegedly incompatible approaches of Kuwata and Fisher. *See id.* at 19–20.

(c) Analysis and Conclusion

We presently conclude the preliminary record supports, sufficiently to justify institution, Petitioner's contention that a person of ordinary skill in the art would have been motivated to combine Kuwata and Fisher to practice the invention of claim 1, as follows.

We presently agree with Petitioner's contention that Kuwata's camera 22 employs image processing control data, as claimed, when generating image data. *See supra* Section III.F.3(i) (discussing Petitioner's

unopposed reliance on Kuwata in relation to claim 1). In particular, we find Kuwata's camera 22 employs preset control parameter values, including output conditions that are optimized for outputting images with particular printer 24 model(s), and stores these preset control parameter values in image file GF/10 as part of output control information CI. *See id.*

We next agree at this time with Petitioner's contentions that Fisher discloses a camera including an ancillary data module that downloads updated ancillary data files from a remote server via the Internet, and that those files can "include any appropriate information, data, or instructions to facilitate successful operation of" the camera (Ex. 1006 ¶ 34). *See* Pet. 14–15, 23–24; Ex. 1006 ¶¶ 33–34, 42, 44, 55. We further find that one of Fisher's disclosed purposes of employing such an ancillary data module is to update data files stored on the camera. *See* Pet. 23–24; Ex. 1006 ¶ 53 (ancillary data module 416 may download ancillary data files 418 "to thereby update camera menus 424, and otherwise provide current information to a system user for effectively utilizing the ancillary data files 418"). These preliminary findings are supported by Dr. Stevenson's testimony, which is not opposed by contrary witness testimony at this time. *See* Ex. 1003 ¶¶ 84–85, 103–105.

Thus, Patent Owner's opposition that Fisher falls short of claim 1 because Fisher's *ancillary data updates* are not the claimed *image processing control data* misses the mark set by Petitioner's combination of Kuwata and Fisher. Specifically, even accepting the opposition's premise as an accurate reading of Fisher's disclosure, it overlooks that Kuwata discloses utilizing image processing control data, as discussed above. In this way, the combined teachings of Kuwata (i.e., a camera that utilizes image processing

control data when generating images to optimize output of the image data with a printer) and Fisher (i.e., a camera that downloads updated data files from a server via the Internet) lead to the claimed invention.

Patent Owner's position in this regard invites us to err "by looking at [Fisher] individually" and separately from Kuwata, because "[t]he question in an obviousness inquiry is whether it would have been obvious to a person of ordinary skill in the art to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements." *Palo Alto Networks, Inc. v. Centripetal Networks LLC*, 122 F.4th 1378, 1385–86 (Fed. Cir. 2024) (quoting *Game & Tech. Co. v. Wargaming Grp. Ltd.*, 942 F.3d 1343, 1352 (Fed. Cir. 2019)); *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (nonobviousness is not established by attacking references individually when unpatentability is predicated upon a combination of prior art disclosures); *see also KSR*, 550 U.S. at 420–421 (stating "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton," and "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle").

Finally, as to motivation for combining Kuwata and Fisher to practice the invention of claim 1, Petitioner's contentions and Dr. Stevenson's testimony justify institution of review. In particular, Dr. Stevenson testifies that a person of ordinary skill in the art would have been motivated, in light of Fisher's disclosures regarding updating of data files on a camera, to configure Kuwata's camera to download updated image processing control data from a server via the Internet, in order to pair the camera with various

printers including printers that were not yet on the market when the camera was manufactured. *See* Pet. 15–18, 22–26; Ex. 1003 ¶¶ 86–89, 102–108.

Based on the present record, we conclude Kuwata does not teach away from this combination, as Patent Owner would have it. Kuwata merely discloses that the camera manufacturer (as opposed to individual users of the camera) is in the best position to optimize the output control information CI utilized by the camera to reduce differences between images displayed to the user by the camera and images that are outputted by particular printers. *See* Ex. 1005 ¶¶ 75, 77. This does not detract from the benefits of updating the output control information CI after the camera is manufactured, for example so that the camera can be paired with printers that were not yet on the market when the camera was manufactured. Indeed, Fisher recognizes that "a manufacturer may create various ancillary data files 418, and make the ancillary data files 418 available on a distributed computer network like the Internet for subsequent downloading and utilization by camera device 110." Ex. 1006 ¶ 55. That teaching in Fisher dovetails with Kuwata's disclosure concerning camera manufacturers optimizing their cameras with various different printers.

For the foregoing reasons, we conclude the preliminary record supports, sufficiently to justify institution, Petitioner's contention that a person of ordinary skill in the art would have been motivated to combine Kuwata and Fisher to practice the invention of claim 1.

(iii) Conclusion as to Claim 1

We conclude Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that claim 1 is unpatentable as having been obvious over Kuwata and Fisher.

4. Claims 2, 3, 5, 6, and 10

Petitioner provides arguments and evidence in support of contending claims 2, 3, 5, 6, and 10 are unpatentable as having been obvious over Kuwata and Fisher, including supporting testimony from Dr. Stevenson. *See* Pet. 30–54; Ex. 1003 ¶¶ 116–165.

Patent Owner opposes, relying on arguments we have considered above in connection with claim 1. *See* Prelim. Resp. 21–22.

"When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim." 37 C.F.R. § 42.108(a). Thus, pursuant to USPTO rules and policy implementing *SAS Inst. Inc. v. Iancu*, 584 U.S. 357 (2018), we "either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution." Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019) ("CTPG"), 5–6, 64.[4] We "will not institute on fewer than all claims or all challenges in a petition." *Id.* at 5, 64; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is "a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition").

[4] *Available at* https://www.uspto.gov/TrialPracticeGuideConsolidated.

Thus, because we have decided to grant institution on claim 1, we do the same for claims 2, 3, 5, 6, and 10. *See supra* Section III.F.3; 37 C.F.R. § 42.108(a); CTPG 5–6, 64. Further, Patent Owner does not address these claims apart from arguments we have considered above in connection with claim 1, so there is nothing further for us to address with respect to these claims at this time. *See* CTPG 5–6, 64.

5. Conclusion as to Ground One

We conclude the record demonstrates a reasonable likelihood that Petitioner would prevail with respect to challenging claim 1 as having been obvious over Kuwata and Fisher, so we grant institution of review on Petitioner's Ground One.

G. Ground Two — Obviousness over Kuwata, Fisher, and Ohga

In Ground Two, Petitioner asserts claims 1–6 and 10 of the '082 patent are unpatentable as having been obvious over Kuwata, Fisher, and Ohga. *See* Pet. 1, 54–64. Patent Owner disagrees. *See* Prelim. Resp. 22–27.

As discussed above, because we have decided to grant institution on Ground One, we do the same for Ground Two. *See supra* Section III.F.4; 37 C.F.R. § 42.108(a); CTPG 5–6, 64. Nonetheless, we will address Patent Owner's arguments concerning Ground Two separately from Ground One, to provide guidance to the parties for the upcoming trial. *See* CTPG 6, 64.

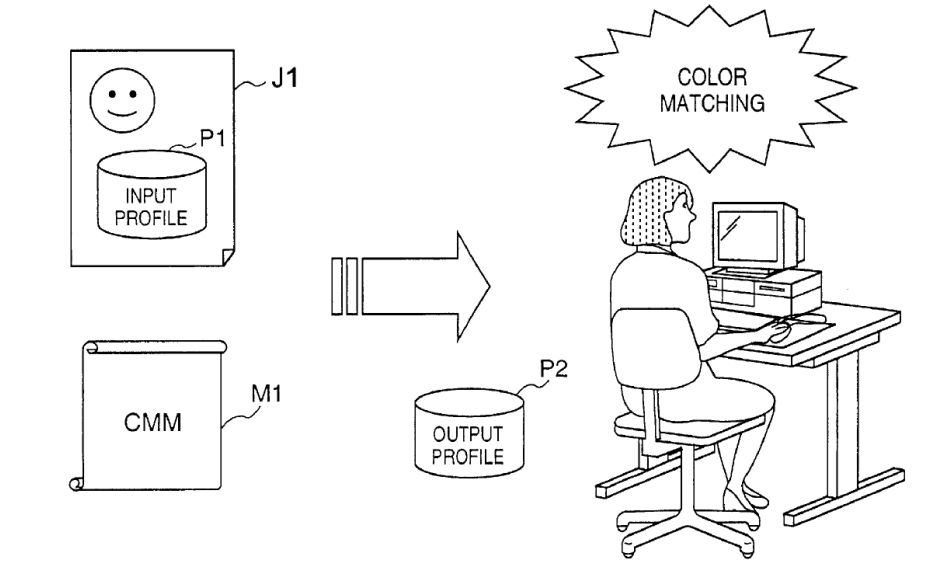
We summarize the disclosure of Ohga. Then we consider the parties' competing contentions.

1. Ohga

Ohga provides "a method of executing color matching for image data obtained via a network using a profile of an input device embedded in image data received from a server, a profile of an output device selected by the user, and a color matching module (CMM) of the client." Ex. 1007, code (57). The CMM is downloaded via a network, in order to achieve consistent color matching results among various users. *See id.*

Figure 7 of Ohga is reproduced below.

FIG. 7



Ohga, Figure 7.

Figure 7 illustrates a client computer downloading image data J1 and CMM M1 from a server S1 (shown in Figure 3), wherein input profile P1 is embedded in image data J1 to identify the input device (e.g., a camera) that was utilized to generate image data J1. *See id.* at 1:16–22, 2:27–42, 2:58–61, 2:65–3:1, 3:6–17, 3:37–47, 4:30–32. The client computer utilizes the CMM to perform color matching, wherein the CMM matches input profile P1 with output profile P2 selected by a user that identifies an output

device such as a monitor or a printer for outputting image data J1. *See id.* at 1:16–27, 2:62–64, 3:16–18, 3:48–4:12. The matched characteristics can include "color space characteristics, i.e., the XYZ values of RGB primary colors, gamma coefficient, and XYZ value of white point." *Id.* at 3:62–65, 4:1–2.

2. Claim 1

(i) Petitioner's Contentions

Concerning claim 1, Ground Two differs from Ground One only in relying on Ohga in relation to the storage manager limitation, in the event "the Board finds that Kuwata and Fisher do not render obvious updating 'based on specification data, which specifies the image processing control data to be updated.'" Pet. 56; Ex. 1003 ¶¶ 166–167. In that event, Petitioner contends a person of ordinary skill in the art "would have found this obvious in further view of Ohga." Pet. 56; Ex. 1003 ¶ 167.

Petitioner asserts "Ohga, like Kuwata, discloses processing image data based on an identified input device (e.g., digital camera) and output device (e.g., printer)." Pet. 56 (citing Ex. 1007, 2:58–3:1, 4:3–12); Ex. 1003 ¶ 168. Petitioner argues Ohga additionally provides a "color-matching-module program" that "'executes color matching for the image data J1' based on input and output profiles P1, P2 (image processing control data)," wherein an individual user's computer "acquires input profile P1 'from the downloaded image data' or downloads it separately based on a 'designation' (specification data for input profile) and downloads output profile P2 based on [the] user selecting a 'given profile name' (specification data for output

profile) from a list." Pet. 56 (citing Ex. 1007, 3:16–19, 3:37–58, 4:3–12, 4:30–37); Ex. 1003 ¶ 168.

Petitioner then argues a person of ordinary skill in the art "would have found it obvious to combine Kuwata, Fisher, and Ohga so the storage manager provides specification data identifying the desired preset conditions to be updated to the server, for similar reasons as described for" combining Kuwata and Fisher in Ground One. Pet. 57 (citing Pet. 22–27 (§ V.A.4.e)); Ex. 1003 ¶¶ 169–172. In particular, according to Petitioner, a person of ordinary skill in the art "would have been motivated to provide the server with identification information (specification data) that identifies new or updated preset conditions for a DSC-printer pair so that the server would efficiently identify and transmit the desired preset conditions to the camera." Pet. 57 (citing Ex. 1007, 4:41–44); Ex. 1003 ¶ 170.

(ii) Patent Owner's Contentions

Patent Owner contends Petitioner "fails to show that Kuwata in view of Fisher and Ohga discloses" the storage manager limitation of claim 1. Prelim. Resp. 24. Patent Owner argues "Petitioner relies on Ohga as allegedly disclosing 'based on specification data, which specifies the image processing control data to be updated,'" but "Petitioner fails to show that Ohga supplies this teaching." *Id.* at 24–25. Patent Owner asserts Petitioner errs in relying on Ohga's "'designation' of an input profile" and "'given profile name' of an output profile" as corresponding to the claimed "specification data" which "must specify *image processing control data*." *Id.* at 25 (citing Pet. 56; Ex. 1001, 15:18–19; Ex. 1007, 3:38–41, 3:48–50, 4:3–5). In particular, according to Patent Owner, Ohga discloses merely that

its input and output profiles are passed to the CMM program which "executes color matching for the image data J1 on the basis of the input profile P1 and monitor profile," and "Ohga provides no further information about what kinds of data the profiles contain or how that data is used as part of the CMM program." *Id.* Patent Owner also concludes the Petition and Dr. Stevenson's testimony fail to explain "how or why [Ohga's] 'profiles' disclose image processing control data as claimed," so Petitioner "fails to establish a reasonable likelihood that claim 1 is obvious in view of Kuwata, Fisher, and Ohga." *Id.* at 25–26.

(iii) Analysis and Conclusion

We conclude the preliminary record supports, sufficiently to justify institution, Petitioner's foregoing combination of Kuwata, Fisher, and Ohga.

As discussed above in connection with Ground One and claim 1, we agree with Petitioner's contention that Kuwata's camera 22 employs image processing control data, as claimed, when generating image data. *See supra* Section III.F.3. Thus, Patent Owner's opposition that Ohga falls short of claim 1 because Ohga's specification data does not specify image processing control data misses the mark set by Petitioner's combination of Kuwata, Fisher, and Ohga. Specifically, even accepting the opposition's premise as an accurate reading of Ohga's disclosure, it overlooks that the combined teachings of Kuwata (i.e., a camera that utilizes image processing control data when generating images to optimize output of the image data with a printer), Fisher (i.e., a camera that downloads updated data files from a server via the Internet), and Ohga (i.e., utilizing specification data to identify various image input and output devices that are color-matched to each

other), lead to the claimed invention. Patent Owner's position in this regard invites us to err by looking at Ohga individually and separately from Kuwata and Fisher. *See Palo Alto Networks*, 122 F.4th at 1385–86; *Merck*, 800 F.2d at 1097.

At the same time, however, based on the preliminary record presented, it is not clear whether Ohga's input profile P1 and output profile P2 specify "image processing control data" as recited in claim 1. On one hand, we agree with Patent Owner's position that Ohga's input profile P1 specifies the input device (such as a camera) that was utilized to generate image data J1, and Ohga's output profile P2 specifies the output device (such as a monitor or a printer) that is utilized to output image data J1. *See* Ex. 1007, 1:16–27, 2:58–3:1, 3:13–18, 3:37–4:12. Such a mere device identification would not, on the record presented, appear to be "image processing control data."

On the other hand, Ohga additionally describes how its color matching module CMM utilizes the profiles P1 and P2 to perform color matching, wherein the matched characteristics appear to include "color space characteristics, i.e., the XYZ values of RGB primary colors, gamma coefficient, and XYZ value of white point." *Id.* at 3:62–4:2; *id.* at 1:16–27, 3:6–18, 3:37–4:12. Further, the '082 patent describes such characteristics as exemplary "image processing control data." *See* Ex. 1001, 5:58–64, 6:63–66, 7:3–18, 9:4–10 (Fig. 7), 9:11–10:67 (Fig. 8); *see also* Prelim. Resp. 18 ("[T]he '082 patent describes image processing control data as . . . including gamma correction, color space, contrast and color balance."). Based on the present record, it is not clear to us how Ohga's color matching module CMM can utilize the profiles P1 and P2 to perform color matching

unless those profiles reflect color characteristics of the input and output devices being matched, which the '082 patent indicates would correspond to the claimed "image processing control data."

Our present Decision to institute does not turn on this issue, so we do not comment further on it at this time. We invite the parties to address this issue further during the trial instituted by this Decision.

3. Claims 2–6 and 10

Patent Owner does not address claims 2–6 and 10 in Ground Two apart from arguments discussed above in connection with claim 1. *See* Prelim. Resp. 26–27. Therefore, there is nothing further for us to address with respect to these claims at this time. *See* CTPG 5–6, 64.

H. Ground Three — Obviousness over Kuwata and Ohga

In Ground Three, Petitioner asserts independent claim 7 of the '082 patent is unpatentable as having been obvious over Kuwata and Ohga. *See* Pet. 1, 64–73. Patent Owner disagrees. *See* Prelim. Resp. 28–30.

As discussed above, because we have decided to grant institution on Ground One, we do the same for Ground Three. *See supra* Section III.F.4; 37 C.F.R. § 42.108(a); CTPG 5–6, 64. Nonetheless, we will address Patent Owner's arguments concerning Ground Three separately from Ground One, to provide guidance to the parties for the upcoming trial. *See* CTPG 6, 64.

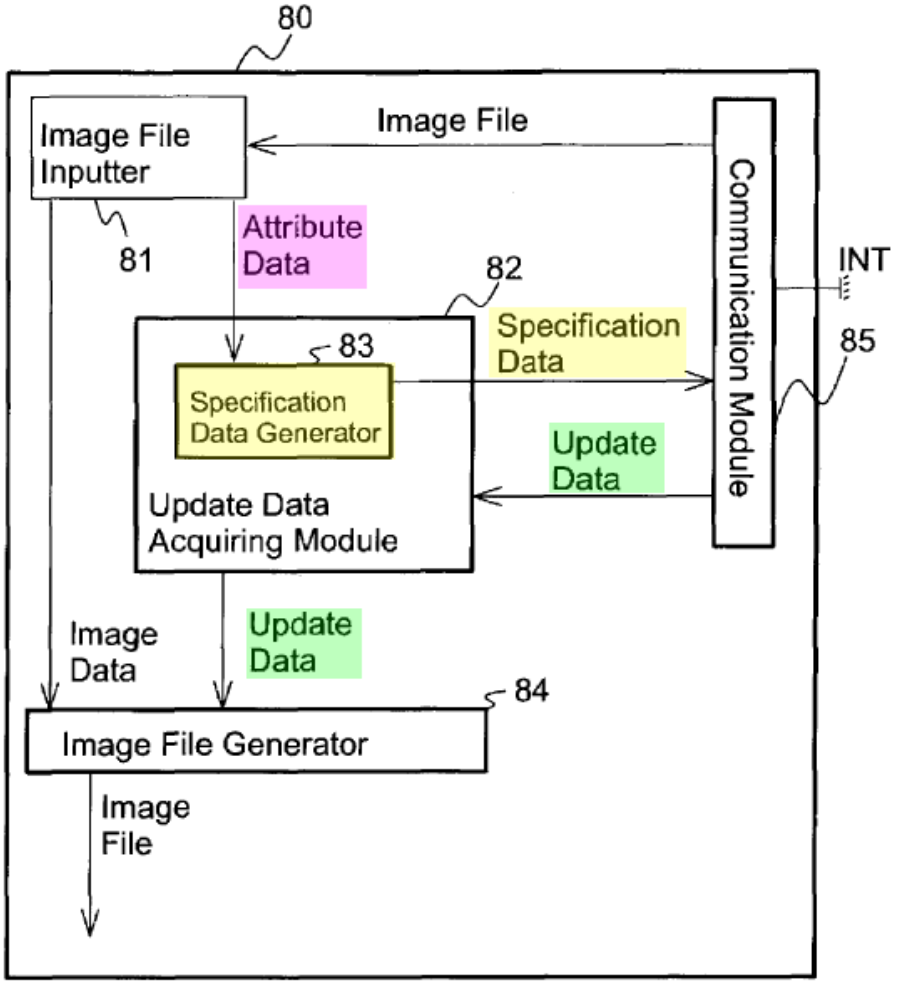
1. Independent Claim 7

Whereas claim 1 is directed to "[a]n image related data *generator*," independent claim 7 is directed to "[a]n image related data *editor*." Ex. 1001, 15:8 (emphasis added), 15:47 (emphasis added). Claim 7 recites

that the editor receives "image data and attribute data related to the image data, the attribute data including at least one of image processing control data to control image processing of the image data and identification data to identify the image processing control data." *Id.* at 15:49–54. The editor of claim 7 further comprises "an update data acquiring module configured to acquire update data of the image processing control data based on the attribute data from the server." *Id.* at 15:54–56.

Figure 15 of the '082 patent illustrates an exemplary image related data editor, and is reproduced below, with our color annotations added.

Fig.15



'082 Patent, Figure 15 (Annotated in Color).

Figure 15 illustrates personal computer 80 that is an image related data editor which, together with camera 10, printer 11, and server 12 shown in the first embodiment of Figure 1, forms an image output system. *See id.* at 12:60–67, 13:22–23.

Editor 80 includes image file inputter 81 that receives from camera 10 an image file including image data and attribute data, wherein "specification data [(yellow)] is included in the attribute data [(pink)], and is extracted by the specification data generator 83 in the update data acquiring module 82." *Id.* at 13:1–6, 13:23–27. "The specification data is similar to that in the first embodiment" shown in Figure 1 and discussed above in Section II.B, "and includes at least one of the PIM and the identification data to identify the PIM" — that is, "predetermined data to specify the update data corresponding to the image data." Ex. 1001, 13:6–10. In this way, editor 80 can acquire "update data" (green) for the PIM, "by sending the specification data recorded in the image file to the UDS server 12," substantially as described above in Section II.B in connection with camera 10 acquiring update data. Ex. 1001, 13:13–21, 13:27–31. Then, "image file generator 84 generates the modified image file in which the update data and the image data extracted by the image file inputter 81 are related and stored." *Id.* at 13:31–33, 13:44–47.

2. Petitioner's Contentions

Petitioner contends "Kuwata and Ohga render obvious" the update module limitation of claim 7. Pet. 71; Ex. 1003 ¶ 204.

Petitioner firstly contends that Kuwata discloses, as recited in claim 7, "attribute data related to the image data, the attribute data including at least

one of image processing control data to control image processing of the image data and identification data to identify the image processing control data." Ex. 1001, 15:49–54; *see* Pet. 67–68. In particular, Petitioner asserts Kuwata's personal computer ("PC" in Figure 4) is an image related data editor that "obtains a camera-generated image file GF via 'cable CV' or 'storage device 225' (input module) and reads the image file via a software application." Pet. 64, 67, 71 (citing Ex. 1005 ¶¶ 85, 96, 115); Ex. 1003 ¶¶ 190, 197, 205. Petitioner also argues Kuwata's acquired image file GF/10 "may include 'image data GD' (image data) and 'output control information CI' (attribute data related to the image data)." Pet. 67 (citing Ex. 1005 ¶¶ 96, 115); Ex. 1003 ¶ 197. Further according to Petitioner, "Kuwata's preset conditions including the output control information CI disclose attribute data related to the image data, including image processing control data to control image processing of the image data, for the reasons discussed for Ground [One]." Pet. 67–68 (citing Pet. 20–22 (§§ V.A.4.c–d); Ex. 1005, Fig. 3b, ¶ 74); Ex. 1003 ¶ 197.

Petitioner secondly contends that, if Kuwata falls short of claim 7 in the foregoing regards, then Kuwata and Ohga combine to render utilizing the claimed "attribute data" obvious. *See* Pet. 67, 68 ("If Patent Owner argues or the Board finds that Kuwata does not disclose [7a], then this limitation would have been obvious in view of Ohga."), 71; Ex. 1003 ¶¶ 198, 205. Here, Petitioner asserts "Ohga, like Kuwata, discloses performing image processing using characteristics of the input and output devices." Pet. 68 (citing Ex. 1007, 4:3–12); Ex. 1003 ¶ 198. Ohga further provides, according to Petitioner, a personal computer having an input module (i.e., input interface 103) that receives an input profile P1 from the input device (i.e., a

camera) and an image data file including image data J1. Pet. 68 (citing Ex. 1007, Figs. 3, 4, and 6–8, 2:31–61, 3:6–15, 3:37–45, 4:30–38, 4:63–67); Ex. 1003 ¶ 198.

Petitioner argues a person of ordinary skill in the art "would have found it obvious to incorporate Ohga's input module configured to input image data and attribute data into Kuwata's PC to receive image data and attribute data necessary to identify the desired preset conditions for inclusion as output control information CI based on, for example, the camera used for image generation and/or the printer used for printing." Pet. 68–69 (citing Ex. 1005 ¶ 96); Ex. 1003 ¶ 199–201. Petitioner cites "the 'color reproduction characteristics of the output device'" as exemplary output control information CI in this regard. Pet. 68–69 (citing Ex. 1005 ¶ 96); Ex. 1003 ¶ 199. Petitioner particularly asserts a person of ordinary skill in the art "would have understood that sending an image file GF with the image data GD and 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." Pet. 69–71 (emphasis added) (citing Ex. 1005 ¶¶ 70–71, 77, 82, 96; Ex. 1007, 2:47–61, 4:41–44); Ex. 1003 ¶¶ 200–203.

Turning to the claimed update module, Petitioner asserts "Ohga discloses 'a download unit' that acquires a profile for the input and output devices (update data of the image processing control data) from a server based on the devices' names (attribute data)." Pet. 71–72 (citing Ex. 1007, 3:37–58, 4:30–38, 6:9–15); Ex. 1003 ¶ 206. Thus, Petitioner's view is that Ohga's PC "provide[s] a device name (attribute data) to the server to

download a profile associated with that device (update data of the image processing control data),"which a person of ordinary skill in the art would have included in the combination of Kuwata and Ohga as discussed above. Pet. 72 (citing Pet. 67–71 (§ V.C.1.b); Ex. 1003 ¶ 207.

3. Patent Owner's Contentions

Patent Owner argues Petitioner "does not show that Kuwata in view of Ohga discloses" the update module limitation of claim 7. Prelim. Resp. 28 (section heading, formatting modified). According to Patent Owner, "Petitioner relies on Ohga's teachings for the 'update data' and 'attribute data' limitations, acknowledging that Kuwata does not disclose them." *Id.* (citing Pet. 71). Patent Owner asserts "Petitioner fails to show that Ohga discloses either of these limitations," because Ohga's input and output profiles are not "image processing control data," based on arguments we have discussed above in Section III.G.3 in relation to Ground Two. *Id.*

Patent Owner also argues Petitioner identifies 'the devices' names' [in Ohga] as the claimed 'attribute data,' but this mapping is likewise unsupported." *Id.* at 29. Patent Owner maintains the "attribute data" of claim 7 must be "related to the image data" as well as "at least one of image processing control data to control image processing of the image data and identification data to identify the image processing control data." *Id.* (citing Ex. 1001, 15:49–54). According to Patent Owner, "Petitioner does not explain why" Ohga's device names satisfy those claim requirements for "attribute data," and Petitioner particularly "fails to explain how the names themselves would be image processing control data." *Id.*

4. Analysis and Conclusion

We conclude the preliminary record supports, sufficiently to justify institution, Petitioner's foregoing combination of Kuwata and Ohga.

As discussed above in connection with Ground One and claim 1, we agree with Petitioner's contention that Kuwata's image processing system employs attribute data including image processing control data, as claimed, when generating and editing image data. *See supra* Section III.F.3. Thus, Patent Owner's opposition that Ohga falls short of claim 7 because Ohga's input profile P1 and output profile P2 do not contain image processing control data misses the mark set by Petitioner's combination of Kuwata and Ohga. Specifically, even accepting the opposition's premise as an accurate reading of Ohga's disclosure, it overlooks that the combined teachings of Kuwata (i.e., an image editor that utilizes image processing control data when editing images to optimize output of the image data with a printer) and Ohga (i.e., utilizing specification data to identify various image input and output devices that are color-matched to each other), lead to the claimed invention. Patent Owner's position in this regard invites us to err by looking at Ohga individually and separately from Kuwata. *See Palo Alto Networks*, 122 F.4th at 1385–86; *Merck*, 800 F.2d at 1097.

Further, as discussed above in Section III.G.2(iii) in relation to Ground Two, it is not clear based on the present record whether Ohga's input profile P1 and output profile P2 specify "image processing control data" as that term is used in claim 7, and we invite the parties to address this issue further during the trial instituted by this Decision.

I. Ground Four — Obviousness over Ohga and Kuwata

In Ground Four, Petitioner asserts independent claim 8 of the '082 patent is unpatentable as having been obvious over Ohga and Kuwata. *See* Pet. 1, 73–79. Patent Owner disagrees. *See* Prelim. Resp. 30–33.

As discussed above, because we have decided to grant institution on Ground One, we do the same for Ground Four. *See supra* Section III.F.4; 37 C.F.R. § 42.108(a); CTPG 5–6, 64. Nonetheless, we will address Patent Owner's arguments concerning Ground Four separately from Ground One, to provide guidance to the parties for the upcoming trial. *See* CTPG 6, 64.

Whereas claim 1 is directed to "[a]n image related data generator" such as camera 10 in Figure 1 of the '082 patent, independent claim 8 is directed to "[a]n update data transmit apparatus" such as server 12 in Figure 1. Ex. 1001, 15:8, 16:1–2. Claim 8 recites that the apparatus comprises "an update data storage module for storing in advance update data for image processing control data to control image processing of image data, the update data being associated with at least one of the image processing control data and identification data to identify the image processing control data." *Id.* at 16:3–8.

Petitioner relies on Ohga as disclosing or suggesting the claimed update data storage module, including the storage of image processing control data,[5] based on essentially the same arguments and evidence discussed above in Section III.G.2 in relation to Ground Two and claim 1

[5] In Ground Four, Petitioner relies on Kuwata only as support for contending it would have been obvious to modify Ohga to perform its color-matching image processing using *a printer* rather than *a personal computer*. *See* Pet. 76–79; Ex. 1003 ¶¶ 222–228.

and in Section III.H in relation to Ground Three and claim 7. *See* Pet. 73–76; Ex. 1003 ¶¶ 212–221. Patent Owner similarly raises essentially the same objections to Ohga in this regard. *See* Prelim. Resp. 30–33. As discussed above in Section III.G.2(iii), it is not clear based on the present record whether Ohga's input profile P1 and output profile P2 specify "image processing control data" as that term is used in claim 8, and we invite the parties to address this issue further during the trial instituted by this Decision.

Further, assuming for the moment that Ohga's profiles P1 and P2 do specify "image processing control data" per claim 8, the claim further requires that the update data is "associated with *at least one of* the image processing control data *and identification data to identify the image processing control data*." Ex. 1001, 16:5–8 (emphasis added). Addressing the "identification data" alternative in the claim, Petitioner asserts Ohga's input profile P1 and output profile P2 "are associated with the names of the [input or output] devices (identification data)." Pet. 74 (citing Ex. 1007, 3:37–58, 4:63–67, 7:22–27); *id.* at 75 (also citing Ex. 1007, Fig. 8, 2:47–57, 3:4–5); *id.* at 76 (same); Ex. 1003 ¶¶ 215, 217, 221. Patent Owner objects that Petitioner's "read for 'identification data' is . . . unsupported" because the claimed "identification data" "must 'identify the image processing control data,'" which is not accomplished by merely identifying the input device and the output device. Prelim. Resp. 30–31.

We are inclined to agree with Patent Owner in that specific regard, based on the preliminary record. Claim 8 refers to "identification data *to identify the image processing control data*." Ex. 1001, 16:7–8 (emphasis added). The fact that Ohga's input profile P1 and output profile P2 identify

a specific input device and a specific output device to be color-matched by Ohga's color matching module CMM does not appear to satisfy that claim requirement. Ohga's input and output profiles P1 profile P2 *may* additionally specify certain color characteristics of the identified input and output devices, which is an issue we leave for trial as discussed above. But if so, that would correspond to the first alternative in claim 8 ("associated with . . . the image processing control data"), not the second alternative in claim 8 ("associated with . . . identification data to identify the image processing control data").

J. Grounds Five and Six — Anticipation by and Obviousness over Ohga

In Ground Five, Petitioner asserts independent claim 9 of the '082 patent is unpatentable as anticipated by Ohga. *See* Pet. 1, 80. In Ground Six, Petitioner asserts claim 9 is unpatentable as having been obvious over Ohga. *See id.* Patent Owner disagrees with both of these Grounds. *See* Prelim. Resp. 34–35.

As discussed above, because we have decided to grant institution on Ground One, we do the same for Grounds Five and Six. *See supra* Section III.F.4; 37 C.F.R. § 42.108(a); CTPG 5–6, 64. Moreover, Patent Owner's opposition to these Grounds relies solely on arguments we have already addressed above. *See* Prelim. Resp. 34–35. Therefore, there is nothing further for us to address with respect to these Grounds at this time. *See* CTPG 5–6, 64.

IV. CONCLUSION

For the above reasons, we determine the information in the record demonstrates a reasonable likelihood that Petitioner would prevail with

respect to at least one challenged claim. We, therefore, institute an *inter partes* review of claims 1–10 on all grounds presented in the Petition. *See* 35 U.S.C. § 314(a); 37 C.F.R. § 42.108(a).

At this preliminary stage, the Board has not made a final determination with respect to the patentability of the challenged claims or any underlying factual or legal issue. The Board's final determination will be based on the record as developed during the *inter partes* review. Any arguments not raised by Patent Owner in a timely-filed response may be deemed waived.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1–10 of the '082 patent on all grounds presented in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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