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## UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EASTMAN KODAK CO., AGFA CORP., ESKO SOFTWARE BVBA, and HEIDELBERG, USA, Petitioner,

v.

CTP INNOVATIONS, LLC, Patent Owner.

Case IPR2014-00788 Patent 6,738,155 B1

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Before KEVIN F. TURNER, <sup>1</sup> BENJAMIN D. M. WOOD, and BRIAN J. MCNAMARA, *Administrative Patent Judges*.

WOOD, Administrative Patent Judge.

FINAL WRITTEN DECISION ON REHEARING 35 U.S.C. § 318(a) 37 C.F.R. § 42.71

<sup>&</sup>lt;sup>1</sup> Judge Turner replaces Judge Blankenship on the panel.

#### I. INTRODUCTION

# A. Background

Eastman Kodak Co., Agfa Corp., Esko Software BVBA, and Heidelberg, USA (collectively, "Petitioner") filed a request for rehearing (Paper 36, "Reh'g Req.") of our Final Written Decision (Paper 35, "Final Dec."). We requested (Paper 37) a response from CTP Innovations, LLC ("Patent Owner"), which was subsequently submitted (Paper 38, "Reh'g Req. Resp."). After considering the Petitioner's Rehearing Request and Patent Owner's Response, we granted rehearing of the Final Decision with respect to the following grounds of unpatentability:

Reference[s]	Basis	Claims Challenged
Dorfman <sup>2</sup> and Apogee <sup>3</sup>	§ 103(a)	10–13
Dorfman, Apogee, and Andersson <sup>4</sup>	§ 103(a)	14 and 15
Dorfman, Apogee, and OPI White Paper <sup>5</sup>	§ 103(a)	16, 17, 19, and 20 <sup>6</sup>

<sup>&</sup>lt;sup>2</sup> Dorfman, WO 98/08176 (iss. Feb. 26, 1998) (Ex. 1006).

<sup>&</sup>lt;sup>3</sup> Agfa-Gevaert N.V., AGFA APOGEE: THE PDF-BASED PRODUCTION SYSTEM (1998) (Ex. 1007).

<sup>&</sup>lt;sup>4</sup> Mattias Andersson et al., PDF PRINTING AND PUBLISHING, THE NEXT REVOLUTION AFTER GUTENBERG (Micro Publishing Press 1997) ("Andersson") (Ex. 1009).

<sup>&</sup>lt;sup>5</sup> Apple Computer, Inc., OPI WHITE PAPER (1995) (Ex. 1008).

<sup>&</sup>lt;sup>6</sup> Both Patent Owner and Petitioner discuss claim 18 in their supplemental briefs. Paper 40, 8–9; Paper 41, 4–5. However, we did not institute inter partes review of claim 18. See Paper 9, 24–25 ("Dec. on Institution").

Paper 39, 4, 14. We permitted supplemental briefing, which the parties duly provided. Papers 40, 41.

Upon consideration of the original papers<sup>7</sup> and evidence, as well as the parties' supplemental briefing, and for the reasons set forth below, we determine that claims 10–17, 19, and 20 are unpatentable.

#### II. ANALYSIS

#### A. The '155 Patent

The '155 patent describes a publishing and printing system that is distributed among three "facilities": an *end user facility*, where content is created; a *central service facility*, where files are stored; and a *printing company facility* (or printer), where documents are printed. Independent claims 10 and 16 are at issue in this case. Claim 10 is drawn to a method that requires: (1) storing files; (2) providing the files to a remote user for designing a page layout; (3) generating a PDF from the designed page layout; (4) generating a "plate-ready file" from the PDF; and (5) *providing* the plate-ready file to a *remote* printer. Claim 10 is reproduced below:

10. A method of providing printing and publishing services to a remote client in real time using a communication network, the method comprising:

storing files on a computer server, the files containing information relating to images, text, art, and data;

providing said files to a remote client for the designing of a page layout;

generating a portable document format (PDF) file from the designed page layout;

generating a plate-ready file from said PDF file; and providing said plate-ready file to a remote printer.

<sup>&</sup>lt;sup>7</sup> Corrected Petition (Paper 4, "Pet."); Patent Owner Response (Paper 19, "PO Resp."); Petitioner's Reply (Paper 24, "Pet. Reply").

## Claim 16 is similar and is reproduced below:

16. A method of providing printing and publishing services to a remote client performing any one of page layout designing and plate press printing where said printing and publishing services are provided in real time using a wide area communication network, the method comprising:

storing high resolution files on a computer server;

generating low resolution files corresponding to said high resolution files;

providing said low resolution files to a remote client for the designing of a page layout;

generating a portable document format (PDF) file from the page layout designed by said remote client;

providing said PDF file to said remote client; and providing a plate-ready file to a remote printer.

## B. Claim Construction

In our Final Decision, we construed "plate-ready file" to mean "a file that represents a page layout that has gone through prepress processing, including RIPing, and is ready to image to a plate using either a platesetter or imagesetter." Final Dec. 10. We construed "remote printer" to mean "an offsite printing company facility accessible (by, e.g., an end user facility or central services facility) via a private or public communication network." *Id.* at 12. Because RIPing is the final step in creating a plate-ready file, we construed "providing said plate-ready file to a remote printer" to require generation of the plate-ready file, including RIPing, at a facility other than the printing company facility. *See id.* at 26 ("Simply put, a printer cannot be 'remote' with respect to itself. It follows that providing a plate-ready file to a 'remote printer' cannot be accomplished by the remote printer that receives

the plate-ready file."). Neither party asks us to reconsider these constructions, nor are we aware of any reason to do so.

# C. Claims 10–13—Dorfman and Apogee

Petitioner contends that claims 10–13 are unpatentable under 35 U.S.C. § 103(a) as obvious over Dorfman and Apogee. Pet. 39–48. Claims 11–13 depend from independent claim 10.

## 1. Dorfman

Dorfman describes a "technique for easily creating and proofing customized printed material before printing on a production printing system." Ex. 1006 (abstract). A user can access a template in PDF format from the system's website, modify the template by adding low-resolution copies of selected images and other variable data, and thereby create a dynamic PDF file. *Id.* at 4:3–8, 8:1–4.8 The PDF file may be viewed or printed to a local low-resolution printer for final proofing. *Id.* at 8:4–11. The user can make any necessary changes or corrections to the PDF file from the system website and send the file "for printing using conventional printing technology where the low resolution images would be replaced by the high resolution images by an OPI . . . process before printing." *Id.* at 4:18–21; *see id.* at 8:23–26.

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<sup>&</sup>lt;sup>8</sup> We conform to Petitioner's usage of Dorfman's original page numbers rather that Petitioner's supplemental page numbers.

Dorfman's Figure 1, reproduced below, depicts an embodiment of this system:

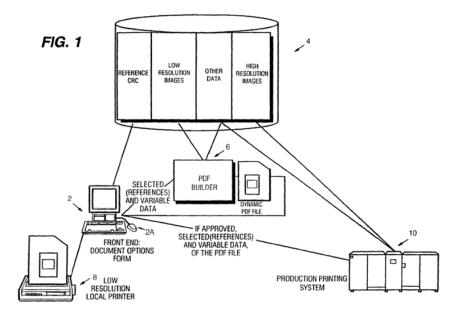


Figure 1 depicts Dorfman's system comprising front end 2, memory 4, PDF builder 6, and production printing system 10. *Id.* at 5:25–6:7. Front end 2 may be the office of a graphic artist employed by an advertising agency, and typically includes a PC with internet connectivity and browser software. *Id.* at 5:29–6:10. Memory 4, PDF builder 6, and printing system 10 are remotely located from front end 2, e.g., at the facilities of a commercial printing service. *Id.* at 6:4–7. Memory 4 may contain a reference library, low resolution and high resolution images, and other data. *Id.* at 5:27–29. Commercial printer 10 maintains a website that allows front end users access to templates and images stored in memory 4. *Id.* at 6:10–13.

# 2. Apogee<sup>9</sup>

Apogee describes the Agfa Apogee, a PDF-based print production system. Ex. 1007, 1. Content can be created in any format and output to Apogee in either PostScript or PDF; whichever format is received, Apogee normalizes incoming files to PDF "to guarantee complete predictability and compatibility." *Id.* at 3–4. The PDF files are stored as individual PDF pages and become "Digital Masters" to create all production versions of the document and to provide a version that can be proofed and edited remotely. *Id.* at 4, 6.

The Apogee system is composed of three components: (1) Apogee "Pilot," a PDF production manager; (2) one or more Apogee PDF RIPs; and (3) the Apogee "PrintDrive," an engine output manager. *Id.* at 2. As the "operational center in the production process," Apogee Pilot "normalizes the incoming files into PDF, collects the pages, imposes, does OPI image exchange and sends this imposed 'digital flat' to an Apogee PDF RIP." *Id.* at 6. The Apogee PDF RIP "takes the device and format independent PDF digital master, and renders (rasterizes) it exactly for the selected output device," e.g., an imagesetter of platesetter. *Id.* The resulting rasterized file is a "Print Image File" (PIF) that "contains all the dots that will appear on the film or plate." *Id.* 

The Apogee PDF RIP sends the PIF to Apogee PrintDrive. *Id.* at 6–7. "Apogee PrintDrive manages the [PIF] output by one or more RIPs, and controls output flow to a variety of output devices including Agfa

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<sup>&</sup>lt;sup>9</sup> In our Final Decision, we determined that Apogee is a prior-art reference under 35 U.S.C. § 102. Final Dec. 14–21. That determination is not under reconsideration.

imagesetters, proofers, and platesetters." *Id.* at 7. According to Apogee, "Apogee PrintDrive can be fed by multiple PDF RIPs over a TCP/IP network." *Id.* Doing so allows a user to "physically separate the rendering from the actual plate production, so [the] PDF RIP can be in the desktop department and the PrintDrive can sit next to the output device, even in another town." *Id.* This arrangement "ensures that [the] platesetter is running at full capacity." *Id.* 

# 3. Analysis

# a. <u>Independent Claim 10</u>

Petitioner has shown by a preponderance of the evidence that the combination of Dorfman and Apogee discloses all of the limitations of independent claim 10. Specifically, a preponderance of the evidence supports Petitioner's contention that Dorfman teaches the steps of:

(1) "storing files on a computer server, the files containing information relating to images, text, art, and data" (e.g., Ex. 1006, 5:27–29, Fig. 1);

(2) "providing said files to a remote client for the designing of a page layout" (e.g., *id.* at 7:15–8:5, Fig. 1A)); and (3) "generating a [PDF] from the designed page layout" (e.g., *id.* at 7:28–8:5, Fig. 3). Petitioner has also established that Apogee teaches "generating a plate-ready file from said PDF file." Pet. 46–47 (citing Ex. 1007, 6–7).

For the step of "providing said plate-ready file to a remote printer," Petitioner relies on the following teaching from Dorfman:

[W]here the commercial printer uses conventional printing technology, the dynamic PDF file generated for proofing is sent to the printing system, and low resolution images used in creating the dynamic PDF file are replaced by high resolution images by, for example, an open pre-press interface (OPI) before printing.

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*Id.* at 46–47 (quoting Ex. 1006, 8:21–26). In addition, as discussed in the Decision granting Petitioner's Request for Rehearing (Paper 39, 12–13), Petitioner also relies on the following excerpt from Apogee to teach this "providing" limitation:

Agfa [sic, Apogee] discloses that the plate-ready file can be sent to a remote printer via a communication network:

Ex. 1007 at pp. 6–7: For "direct-to" production, Agfa developed an output manager that is almost a system by itself: the Apogee PrintDrive.

Apogee PrintDrive manages the Print Image Files (PIF) output by one or more RIPs, and controls output flow to a variety of output devices including Agfa imagesetters, proofers, and platesetters. . . .

For volume applications, Apogee PrintDrive can be fed by multiple PDF RIPs over a TCP/IP network. This unique feature allows you to physically separate the rendering from the actual plate production, so your PDF RIP can be in the desktop department and the PrintDrive can sit next to the output device, even in another town.

Pet. 47–48 (quoting Ex. 1007, 6–7).

We find that the combination of Dorfman and Apogee teaches the step of "providing a plate-ready file to a remote printer." As noted above, the Apogee PrintDrive "may be fed by multiple RIPs over a TCP/IP network." Ex. 1007, 7. At the time of the invention, a person of ordinary skill in the art would have understood "TCP/IP" to refer to the Internet's networking protocol. Newton's Telecom Dictionary 816 (15<sup>th</sup> ed. 1999) (Ex. 3003). Thus, the Internet is a "TCP/IP network." The capability to feed the Apogee PrintDrive by multiple RIPs connected to it over the Internet allows the printer to "physically separate the rendering [i.e., RIPing] from the actual

plate production," so the "PDF RIP can be in the desktop department and the PrintDrive can sit next to the output device [e.g., platesetter], even in another town." Ex. 1007, 7. The Apogee PDF RIP creates the PIF, which is a plate-ready file because it "contains all the dots that will appear on the film or plate." *Id.* at 6. When combined with Dorfman, the PDF file that is RIPed to create the PIF would be the user-created dynamic PDF file (after OPI image exchange, if required). Therefore, the Apogee PDF RIP creates a plate-ready file from Dorfman's dynamic PDF file and "fe[e]d[s]" it to the Apogee PrintDrive—which may be in another town, i.e., "remote" with respect to the RIP—which in turn sends it to a platesetter or imagesetter for offset printing. *Id.* at 7. Thus, the Apogee PDF RIP "provid[es] said plate-ready file to a remote printer."

We also agree with Petitioner that a person of ordinary skill in the art would have had a reason to combine Dorfman and Apogee. In the combined system, Dorfman's production printing system 10 would use Apogee's PDF-based print production system to produce the printed materials using offset printing. Ex. 1021 ¶ 121; see Ex. 1006, 8:23–26. Dorfman teaches that it can be used with conventional printing systems, and there is no dispute that offset printing is a conventional printing system. Further, large print jobs are done at less cost using offset printing rather than digital printing, Ex. 2014 ¶ 46, and Dorfman teaches that customized printed materials may be "ordered in large quantities." Ex. 1006, 2:13–14. Therefore, a person of ordinary skill in the art using Dorfman's system for a large print job would have been motivated to use Apogee's system to take advantage of the cost savings for such jobs offered by offset printing.

Further, we agree with Petitioner's declarant that using Apogee with Dorfman's system would not require either system to be modified. Ex. 1021 ¶ 121. For example, Dorfman's system produces PDF files and sends them for printing using conventional printing technology (e.g., offset printing) (Ex. 1006, 4:18–21), and Apogee's system accepts PDF files for offset printing (Ex. 1006, 3, 6). Dorfman contemplates that the printer would perform OPI image exchange before printing (Ex. 1006, 4:18–21), and Apogee's system is capable of performing OPI image exchange (Ex. 1007, 3). In sum, the combination of Dorfman and Apogee amounts to the "combination of familiar elements according to known methods [that] does no more than yield predictable results," and therefore is "likely to be obvious." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

Accordingly, because the combination of Dorfman and Apogee teaches all of the limitations of claim 10, and a person of ordinary skill in the art at the time of the invention would have had reason to combine Dorfman and Apogee, we determine that claim 10 is unpatentable under 35 U.S.C. § 103 as obvious over Dorfman and Apogee.

# b. <u>Dependent Claims 11–13</u>

We find that Petitioner has shown by a preponderance of the evidence that (1) Dorfman teaches the additional limitation of claim 11 (Ex. 1006, 7:28–8:5); (2) Apogee teaches the additional limitation of claim 12 (Ex. 1007, 6–7)); and (3) Dorfman teaches the additional limitation of claim 13 (Ex. 1006, 5:27–29, 6:20–27, 7:12–20; Ex. 1021 ¶ 133)). Accordingly, for the reasons stated above, we determine that claims 11–13 are unpatentable under 35 U.S.C. § 103 as obvious over Dorfman and Apogee.

# 4. Patent Owner's Arguments Are Not Persuasive

Patent Owner disputes that the proposed combination renders unpatentable claims 10–13. First, Patent Owner argues that Dorfman is a "response on demand" digital printing system, which is "one where a digitalbased file is printed directly to a variety of media without using printing plates." PO Resp. 34 (citing Ex. 2014 ¶ 38). Patent Owner reasons that "[b]ecause Dorfman is a 'response on demand' digital printing system using variable data, a POSITA would understand that the system of Dorfman does not and would not involve the generation of printing plates or plate-ready files." *Id.* at 38 (citing Ex. 2014 ¶ 46–47). Patent Owner acknowledges that "printing plates are inexpensive when producing many identical copies of a document," but contends that "they would be extremely expensive if one were to attempt to produce multiple unique documents, or smaller runs of documents requiring frequent changes or variable data." Id. at 38-39 (citing Ex. 2014 ¶ 46). Thus, argues Patent Owner, a POSITA would not use a digital printing system as disclosed in Dorfman to produce printing plates or plate-ready files. *Id.* at 39.

We are not persuaded that Dorfman is limited to response-on-demand systems or a system for which offset printing is not feasible. As an initial matter, it is unclear whether Dorfman actually describes its invention as a "response on demand" system, as Patent Owner contends. Dorfman uses the term "response on demand" only in the "Background of the Invention" section, primarily as an "example" of a printing system that allows a user to "readily customize printed materials for a particular need." Ex. 1006, 1. But that term is not used in Dorfman's summary of the invention or in its description of the preferred embodiment. In any event, the premise on

which Patent Owner's argument is based—that Dorfman's system is limited to low volume print jobs that would not be economically feasible to produce using offset printing—is not supported by the record. Dorfman expressly teaches that customized printed materials may be printed "in large quantities." Ex. 1006, 2:13–16. As Patent Owner and its Declarant acknowledge, it is generally less expensive to use offset printing for large print jobs. *See* PO Resp. 39 (printing plates used for offset printing "are inexpensive when producing many identical copies") (citing Ex. 2014 ¶ 36). Moreover, Dorfman teaches that its system may be used with "conventional printing technology," and Patent Owner does not dispute the testimony of Petitioner's expert, Professor Lawler, that offset lithography is a "conventional printing technology." Ex. 1021 ¶ 116.

We also disagree with Patent Owner's contention that "modify[ing] Dorfman to involve the generation of printing plates or plate-ready files would change its principle of operation." PO Resp. 39 (citing Ex. 2014 ¶ 47). According to Patent Owner, such a modification would render Dorfman "unfit for its intended purpose of providing on-demand or customized printing materials." *Id.* This contention, however, is not supported by the record. Neither Patent Owner nor its declarant explains why offset printing cannot be used to produce on-demand or customized printing materials. On the contrary, as noted above, Dorfman teaches that it can be used with "conventional" printing methods, which includes offset printing.

Patent Owner next argues that claim 10 "requires a separate central service facility and printing company facility," but Dorfman "merges the central service facility and the printing company facility, which are

described as all being present at the same remote location, e.g., the facilities of a commercial printing service." PO Resp. 40 (citing Ex. 1006, 6:4–7); Paper 40, 4–6. Petitioner disputes that the claims require a separate central service facility. Pet. Reply 14.

We agree with Petitioner that claims 10–13 do not require a separate central service facility. The method recited by independent claim 10 only requires a "remote client" and a "remote printer," and none of claims 11–13 additionally requires a central service facility. In addition, we do not read the Specification as expressly disclaiming a system that does not contain a separate central service facility. See In re Bigio, 381 F.3d 1320, 1325-26 (Fed. Cir. 2004) ("Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition."). For example, the Specification describes "one embodiment" that includes a central service facility and describes the subject matter of claim 10 as "another embodiment." Ex. 1001, 2:51–3:13. This indicates that a central service facility was considered a part of certain embodiments of the invention, rather than a necessary part of the invention itself. See SuperGuide Corp. v. DirecTV Enterps., Inc., 358 F.3d 870, 875 (Fed. Cir. 2004) (holding that "a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment") (citation omitted).

Patent Owner further argues that the claims require that the PDF be created at a central service facility, whereas in Dorfman's system, the enduser creates the dynamic PDF file. Paper 40, 6–8. But, again, the claims do not require a separate central service facility, much less that the PDF file be

created at a central service facility. In making this argument Patent Owner seems to suggest that because the Dorfman's dynamic PDF file may contain low-resolution images, its creation cannot correspond to the step in claim 10 of "generating a [PDF] file from the designed page layout." *Id.* at 7–8. However, Patent Owner has provided no support for this contention, and we are not aware of any such support. Accordingly, we find it unpersuasive.

# D. Claims 14 and 15—Dorfman, Apogee, and Andersson Petitioner asserts that claims 14 and 15 would have been obvious over Dorfman, Apogee, and Andersson. Pet. 49–51.

#### 1. Andersson

Andersson describes the PDF format. According to Andersson, a PDF document is a self-contained file format that includes multiple objects, e.g., bitmap images, text, font information, and line art. Ex. 1009, 22–24. Andersson teaches how to create, view, and edit PDF files, and how to use them to create and simplify digital prepress workflows as compared with "traditional" prepress workflows. *Id.* at 66–67. Andersson also discusses digital environments, in particular, computer networks and servers, suitable for implementing these workflows. *Id.* at 51.

## 2. Claim 14

Claim 14 depends from claim 10 and additionally recites "wherein the step of generating a plate-ready file from said PDF file comprises converting said PDF file to a PostScript file." Petitioner relies on Apogee's teaching that "Apogee PDF RIPs include an Adobe PostScript 3 interpreter to process native PDF and PostScript files and to render them for specific devices." Pet. 50 (quoting Ex. 1007, 6). Petitioner also relies on Andersson to teach "the basic and known requirement that certain devices, such as laser printers,

require PostScript files as their input language." Pet. 50–51 (citing Ex. 1009, 34). Patent Owner disputes that claim 14 would have been obvious over Dorfman, Apogee, and Andersson; in doing so, Patent Owner raises the same arguments there were raised in contending that claim 10 would not have been obvious over Dorfman and Apogee. PO Resp. 45–46.

We have reviewed the evidence relied upon by Petitioner and determine that Petitioner has shown by a preponderance of the evidence that claim 14 would have been obvious over Dorfman, Apogee, and Andersson. As Petitioner points out, a PDF would need to be converted to PostScript for printing on specific devices, and Apogee PDF RIPs are able to render PostScript files for printing on specific devices.

#### 3. Claim 15

Claim 15 depends from claim 10 and additionally recites "wherein the step of storing files on a computer server comprises logging said files into a content management database." Petitioner asserts that "Dorfman discloses a reference library . . . that would be understood by one of ordinary skill in the art as providing content management operations and a content management database." Pet. 49 (citing Ex. 1006, 5:27–29). Petitioner also asserts that "[t]o the extent that Dorfman's reference library was not, in fact, already intended to carry out logging files into a content management database, . . . a person of ordinary skill in the art would have been motivated to add the content management functions described by Andersson to Dorfman to provide the system user with full storage, organization, archival, and reuse privileges through the reference library." *Id.* at 50 (citing Ex. 1009, 51, 67–69, 190; Ex. 1021 ¶ 133). Patent Owner disputes that any of the cited references discloses logging files into a content management database.

We have reviewed the evidence relied upon by Petitioner and determine that Petitioner has shown by a preponderance of the evidence that claim 14 would have been obvious over Dorfman, Apogee, and Andersson. First, we agree that Dorfman would be understood by a person of ordinary skill in the art to teach logging stored files into a content management database. Specifically, Dorfman makes available to its users stored templates that "may be predetermined for a particular customer and presented to the user in accordance with the sign-on information by the user in accessing the web page." Ex. 1006, 7:12–20. That is, the templates would need to be logged into Dorfman's system and associated with a particular user in order for the templates to be presented to the user when the user signed on. We also agree with Petitioner that Andersson teaches content management databases. Ex. 1009, 69.

E. Claims 16, 17, 19, and 20—Dorfman, Apogee, Andersson, and OPI White Paper

Petitioner contends that claims 16, 17, 19, and 20 would have been obvious over Dorfman, Apogee, Andersson, and OPI White Paper (Ex. 1008). Pet. 51–58.

# 1. OPI White Paper

OPI White Paper describes the OPI "image swapping" process. Ex. 1008, 10. "[I]image swapping enables a page designer to work with a small screen-resolution picture file during page design and then rely on the intervention of the OPI server to swap it out for the high-resolution, color-separated file necessary to render the picture in print." *Id.* at 10, 12, Fig. 2d. OPI White Paper describes the typical manner in which the low-resolution image files, or "preview files," are generated: a user saves a high-resolution

file to a particular folder on the OPI server, which triggers a routine that creates a preview file and puts it in a different folder. *Id.* at 12. A particular implementation of the OPI process at a printing facility is also described. *Id.* at 31–32, Fig. 4c.

#### 2. *Claim 16*

We find that Petitioner has shown by a preponderance of the evidence that the combination of Dorfman, Apogee, and OPI White Paper teaches all of the limitations of independent claim 16. First, Dorfman teaches "storing high-resolution files on a computer server." Ex. 1006, 5:27–29. Second, OPI White Paper teaches "generating low resolution files corresponding to said high-resolution files." Ex. 1008, 12.

Third, the combination of Dorfman and OPI White Paper teaches "providing said low resolution files to a remote client for the designing of a page layout." Dorfman teaches that a remote client designs customized materials using, among other things, "low resolution images." Ex. 1006, 3:24–4:6, 7:15–8:5. The low resolution images "would be replaced by the high resolution images by an OPI . . . process before printing." *Id.* at 4:18–24. OPI White Paper confirms that in the course of this "OPI process," the OPI server generates low-resolution preview images from the client's high-resolution images, and the client may access the low-resolution preview images remotely, e.g., "via modem." Ex. 1008, 12, Fig. 2d.

Next, Dorfman teaches "generating a portable document format (PDF) file from the page layout designed by said remote client (Ex. 1006, 7:28–8:5)" and "providing said PDF file to said remote client" (*id.* at 8:4–5). Finally, as discussed above with respect to claim 10, the combination of

Dorfman and Apogee teaches "providing a plate-ready file to a remote printer."

We also find that a person of ordinary skill in the art would have had a reason to combine OPI White Paper with Dorfman and Apogee. Both Dorfman and Apogee expressly teach systems that utilize the OPI image-exchange process, and OPI White Paper describes the OPI image-exchange process. Therefore, a person of ordinary skill in the art would have been motivated to implement the process described in the OPI White Paper to carry out the OPI image-exchange process required by Dorfman and Apogee.

Accordingly, because the combination of Dorfman and Apogee teaches all of the limitations of claim 16, and a person of ordinary skill in the art at the time of the invention would have had reason to combine Dorfman, Apogee, and OPI White Paper, we determine that claim 16 is unpatentable under 35 U.S.C. § 103 as obvious over Dorfman, Apogee, and OPI White Paper.

# 3. Patent Owner's Arguments are unpersuasive

Patent Owner raises the same arguments in support of the patentability of claim 16 as it did for claim 10. That is, Patent Owner argues that Dorfman is a "response on demand" system that does not involve generating printing plates, and that claim 16 requires a separate central service facility, which Dorfman does not disclose. PO Resp. 47–50. For the reasons discussed above with respect to claim 10 (sec. II.C.3.a), we find these arguments unpersuasive.

#### 4. Claim 17

Claim 17 depends from claim 16 and additionally requires "wherein the low resolution files are stored in a storage device at said remote client." We agree with Petitioner that OPI White Paper teaches this additional limitation. Ex. 1008, 12, 32. For example, OPI White Paper teaches that low-resolution preview files may be accessed by a remote client "via modem." Accordingly we determine that claim 17 would have been obvious over Dorfman, Apogee, and OPI White Paper.

#### 5. *Claim 19*

Claim 19 depends from claim 16 and additionally recites "wherein the step of providing a plate-ready file to a remote printer comprises converting the format of the PDF file to a plate-ready file format and communicating the plate-ready file to the remote printer via the communication link." Patent Owner disputes that the proposed combination of references teaches this limitation. We agree with Petitioner, however, that the combination of Dorfman and Apogee teaches this limitation, for the reasons discussed supra with respect to claim 10. *See* sec. II.C.3.a, *supra*. Therefore, we determine that claim 19 would have been obvious over Dorfman, Apogee, and OPI White Paper.

#### 6. Claim 20

Claim 20 depends from claim 16 and additionally recites "wherein the step of storing files on a computer server comprises logging said files into a content management database according to user profiles and attributes." We agree with Petitioner that Dorfman teaches this step. Ex. 1006, 7:12–20. Therefore, we determine that claim 20 would have been obvious over Dorfman, Apogee, and OPI White Paper.

## III. CONCLUSION

For the foregoing reasons, we determine that claims 10–13 are unpatentable under 35 U.S.C. § 103 as obvious over Dorfman and Apogee; claims 14 and 15 are unpatentable under 35 U.S.C. § 103 as obvious over Dorfman, Apogee, and Andersson; and claims 16, 17, 19, and 20 are unpatentable under 35 U.S.C. § 103 as obvious over Dorfman, Apogee, and OPI White Paper.

#### IV. ORDER

For the reasons given, it is

ORDERED that claims 10–17, 19, and 20 of the '155 patent are held unpatentable.

This is a final written decision. Parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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