

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMERICAN MEGATRENDS, INC.,  
MICRO-STAR INTERNATIONAL CO., LTD,  
MSI COMPUTER CORP.,  
GIGA-BYTE TECHNOLOGY CO., LTD., and  
G.B.T., INC.  
Petitioners,

v.

KINGLITE HOLDINGS INC.,  
Patent Owner.

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Case IPR2015-01079  
Patent 6,373,498 B1

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Before GLENN J. PERRY, TREVOR M. JEFFERSON, and  
BRIAN J. McNAMARA, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and*  
*37C.F.R. § 42.73*

## BACKGROUND

On October 29, 2015 we instituted an *inter partes* review of claims 1–45 of U. S. Patent No. 6,373,498 B1 (“the ’498 Patent”). Paper 17 (“Dec. to Inst.”). Patent Owner filed a Patent Owner Response. Paper 31 (“PO Resp.”), Petitioner filed a Petitioner Reply. Paper 39 (“Pet. Reply”). Patent Owner also filed a Corrected Contingent Motion to Amend. Paper 33 (“Mot. To Amend”). Petitioner filed an Opposition to the Motion to Amend. Paper 40 (“Opp. To Mot. To Amend”). Patent Owner filed a Reply to Petitioner’s Opposition to the Motion to Amend. Paper 41 (“Reply to Opp. To Mot. To Amend”). Petitioner filed a Motion to Exclude. Paper 42 (“Mot. To Exclude”). Patent Owner filed an Opposition to Petitioner’s Motion to Exclude. Paper 45 (“Opp. To Mot. To Exclude”). Petitioner filed a Reply to Patent Owner’s Motion to Exclude. Paper 46 (“Reply to Opp. To Mot. To Exclude”). A transcript of an oral hearing held on June 29, 2016 (Paper 48, “Hr’g Tr.”) has been entered into the record.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. §318(a). We base our decision on the preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

Having reviewed the arguments of the parties and the supporting evidence, we conclude that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims are unpatentable. For the reasons discussed below, we deny Patent Owner’s Motion to Amend and Petitioner’s Motion to Exclude.

## THE ’498 PATENT

The ’498 Patent concerns manipulating the display presented to a user during operating system (OS) transitions, e.g., during boot-up and shutdown.

Ex. 1001, col. 1, ll. 65–67. According to the invention, a graphic file replaces a boot-up system file and/or a shutdown system file, so that images other than OS standard images can be displayed when the OS boots up and/or shuts down. *Id.* at col. 1, l. 67–col. 2, l. 4. In one example, the first time a computer completes Power-On Self-Test (POST) an initial payload image is displayed as the system loads the OS. *Id.* at Fig. 4A. After establishing a communication link with an infomediary, based on user preferences and other criteria, another payload (Payload 1-N) is downloaded and the memory is updated, so that on a subsequent execution of the POST, the downloaded payload is displayed. *Id.* at Fig. 4A, 4B; col. 8, l. 47–col. 9, l. 65. As shown in Figure 6 of the '498 Patent, this display is achieved by creating the graphic files in a bitmap file format, saving the original LOGO.SYS, LOGOW.SYS, and LOGOS.SYS files in a temporary directory with different extensions or names, renaming the created boot-up and shutdown graphics files as LOGO.SYS, LOGOW.SYS, and LOGOS.SYS system files respectively, and transferring these renamed boot-up and shutdown files to appropriate directories so that they are retrieved by the operating system. *Id.* at Fig. 6; col. 10, ll. 2–16, col. 11, ll. 5–21. Figure 7 of the '498 Patent illustrates another embodiment in which the graphic data can be extracted from graphics memory. *Id.* at Fig. 7; col. 11, l. 29–col. 12, l. 60.

#### ILLUSTRATIVE CLAIM

Claim 1 is illustrative:

1. A method to display an image during a transition of an operating system in a computer system, the method comprising: obtaining the image having an image format compatible with the operating system; and,

creating content of a system file using the image, the system file to be accessed during the transition of the operating system, said image to correspond to a user profile.

### GROUND OF INSTITUTION

In our Decision to Institute, we instituted trial on the following challenges to patentability:

Claims 1–40 and 44 as obvious under 35 U.S.C. § 103 over the combination of PC Tools<sup>1</sup> and Gerace<sup>2</sup>;

Claims 1–40 and 44 as obvious under 35 U.S.C. § 103 over LogoMania<sup>3</sup>;

Claims 41–43 and 45 as obvious under 35 U.S.C. § 103 over the combination of Lee<sup>4</sup> and Piwonka<sup>5</sup> and PC Tools and Gerace; and

Claims 41–43 and 45 as obvious under 35 U.S.C. § 103 over the combination of Lee and Piwonka and LogoMania.

### CLAIM CONSTRUCTION

In the Decision to Institute, we applied the following claim constructions:

*User Profile*: data describing characteristics of a user, including, but not limited to, user preferences. Dec. to Inst. 8.

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<sup>1</sup> PC Tools PC Software & Windows Tools Change the Startup and Shutdown Screens (*Windows 95/98/Me*) Popular; <http://www.pctools.com/guides/registry/detail/254/>; © 1998–2014 PC Tools (Ex. 1004)

<sup>2</sup> U.S. Patent No. 5,848,396 issued Dec. 8, 1998 (Ex. 1005)

<sup>3</sup> Go Crazy with LogoMania!, Neil J. Rubenking, Mar. 25, 1997 (Article, Ex. 1007); Web Version (Ex. 1006)

<sup>4</sup> U.S. Patent No. 6,269,441 B1 issued July 31, 2001 (Ex. 1008)

<sup>5</sup> U.S. Patent No. 6,073,206, issued June 6, 2000 (Ex. 1009)

*Correspond*: ordinary meaning, i.e., having a direct relationship. *Id.*

*System file*: a file of a computer system that facilitates functioning of the computer's operating system. *Id.* at 9.

*Operating System*: a set of one or more programs which control the computer system's operation and the allocation of resources. *Id.*

*BIOS memory*: a memory that stores a BIOS. *Id.* at 10.

The parties have not disputed these constructions, and we adopt those constructions for the reasons given in the Decision to Institute.

#### ANALYSIS OF PRIOR ART CHALLENGES

##### *Obviousness of Claims 1–40 and 44 Over the Combination of PC Tools and Gerace*

Petitioner cites PC Tools as disclosing a “virtually identical” method as that described in the '498 Patent. Pet. 17–18. As an initial matter, we note Patent Owner's objection to Petitioner's citation of PC Tools because the specific reference has not been shown to be authentic, i.e., Patent Owner's objection states there is insufficient evidence PC Tools is a document published in February 1999. PO Resp. 2–3; Paper 19 (“PO's Objections to Evidence”), 4. A motion to exclude must be filed to preserve any objection. 37 C.F.R. § 42.64(c). Patent Owner did not file any motions to exclude any evidence introduced by Petitioner. Thus, all of Patent Owner's objections to evidence have been waived.<sup>6</sup>

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<sup>6</sup> Patent Owner also objected to (i) Ex. 1010 (this appears to be a typographical error, as Patent Owner's objection states that each page of the document bears a legend indicating that it was provided under Federal Rule of Evidence 408 for settlement discussion purposes only—although that is not true of Ex. 1010, which is an Intel Application Note, each page of Ex.

PC Tools describes a method of changing Microsoft Windows® startup and shutdown down screens by copying the LOGOW.SYS and LOGOS.SYS files to a temporary folder and renaming the extension to .BMP, opening the files and modifying them as desired, and changing the extensions back to .SYS before copying them back over the original files in the Windows directory. Ex. 1004. Patent Owner states that, in PC Tools, the computer user performs these steps and chooses the graphics to display. PO Resp. 2 (citing Ex. 1004, Ex. 2009, Corrected Transcript of Deposition of Dr. Martin Kaliski (“Kaliski Tr.”), 12:9–18).

Petitioner cites Gerace as disclosing the use of customized images based on user profiles for applications relating to home screens or login screens. *Id.* at 20–21. In Gerace, the first time a user logs into a program, he or she selects display preferences, e.g., weather, sports, and news, and the system generates a customized home page that, on subsequent user visits, is displayed to the user as a substitute for the initial home page. Ex. 1005, col. 4, ll. 1–10, 23–28. Patent Owner states that Gerace teaches a computer program whose purpose is to create a profile for the user in order to create a customized web page at a server remote from the user, using a controller that determines which advertisements to display to the user. PO Resp. 3.

Petitioner contends that it would have been obvious to combine the method of changing the startup and shut down screens disclosed in PC Tools with Gerace’s display of a customized home page based on a user profile, because both a home page and a startup screen are graphics initially

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1011 bears this legend), and (ii) the opinions expressed in the Declaration of Dr. Marin Kaliski on the basis that Dr. Kaliski references extrinsic evidence. In the absence of Motion to Exclude, these objections are also waived.

presented to a user. Pet. 20. Patent Owner argues that a person of ordinary skill would not have been motivated to combine these references because they are directed to different audiences, i.e., PC Tools is directed to the computer user interested in changing the graphics on his or her computer, and Gerace is directed to the programmer of a web server aiming to customize web pages for the user. PO Resp. 4–5. According to Patent Owner, “[i]t would have been highly unlikely that the computer user would have consulted a reference directed to web server programming, and it is equally unlikely that a server programmer would have consulted a reference regarding the manipulation of graphics on a personal computer.” *Id.* (citing Ex. 2010, Declaration of Dr. Shahin Nazarian (“Nazarian Decl.”) ¶¶ 20–25).

Petitioner and Patent Owner agree that a person of ordinary skill in the art is one who has a Bachelor of Science degree in computer science or software engineering or a Bachelor of Science in a technical field requiring computer science or software engineering courses. Pet. 7 (citing Ex. 1013, Declaration of Dr. Martin Maklisk (“Kaliski Decl.”) ¶¶ 10, 11); Prelim. Resp. 22–23, Nazarian Decl. ¶ 28. Considering this background, we are not persuaded by Dr. Nazarian’s testimony that, because a course catalog from the Illinois Institute of Technology in the 1995–97 time frame indicates that a computer science graduate at that institution was not required to take courses in web design or programming, an ordinarily skilled artisan would not have thought to combine the teachings of PC Tools and Gerace. Nazarian Decl. ¶ 29. Obviousness must be gauged in view of common sense and the creativity of an ordinarily skilled artisan. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

Petitioner persuasively argues that PC Tools and Gerace are pertinent pieces of prior art because they both relate to displaying images in start-up screens, e.g., homepages and login screens. Pet. Reply. 9 (citing Kalsiki Decl. ¶ 50). Petitioner cites Gerace’s description of the benefits of displaying items based on a user profile upon logging-on as providing a person of ordinary skill motivation for the combination. Pet. Reply 9 (citing Ex. 1005, col. 17, ll. 5–11). We agree with Petitioner’s argument, because “[i]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417.

Patent Owner further contends that Petitioner has not explained how one of ordinary skill would have combined the technology described in the references, arguing that the differences in the technologies are such that “one skilled in the art would not have thought to combine these references given the facial lack of interoperability between them.” PO Resp. 4–5 (citing Nazarian Decl. ¶¶ 20–25). As evidence one of ordinary skill would not have combined PC Tools and Gerace, Patent Owner cites testimony indicating that Petitioner’s expert, Dr. Kaliski, did not know “whether there was sufficient storage in either the LOGOS.SYS and LOGOW.SYS files identified in PC Tools to store the customized web pages taught in Gerace.” PO Resp. 4–5 Patent Owner also argues that Dr. Kaliski conceded it was unlikely one could access a web page during computer start up and shut down. *Id.* at 5.

Patent Owner’s analysis on this point is not persuasive. In the context of obviousness “[T]he analysis need not seek out precise teachings directed

to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418. The test for obviousness is not whether the features of a secondary reference can be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any or all of the references—the test for obviousness is what the combined teachings would have suggested to one of ordinary skill in the art. *In re Keller*, 642 F.2d. 413, 425 (Fed. Cir. 1981).

As discussed above, PC Tools describes the claimed steps to change the information displayed to the user’s preferred information, i.e., by replacing the content of the LOGOS.SYS and LOGOW.SYS files. Ex. 1004. Petitioner cites Gerace for the proposition that what is displayed to the user, whether on a home page or a startup screen, can be customized based on a user profile. Pet. 20 (citing Kaliski Decl. ¶ 56). Thus, Petitioner has demonstrated that PC Tools and Gerace disclose the elements of claim 1 and that a person of ordinary skill would have been motivated to combine the teachings of these references to present content that the user finds interesting and appealing

In our Decision to Institute, we stated that we had reviewed Petitioner’s claim charts and additional analysis for claims 1–40 and claim 44 and found Petitioner’s arguments concerning the combination of PC Tools and Gerace persuasive. Dec. to Inst. 13. Patent Owner argues against the combination of PC Tools and Gerace, but has not responded to Petitioner’s arguments concerning specific claims. PO Resp. 2–7. Independent computer program product claim 11, independent computer

data signal claim 21, and independent system claim 31 correspond generally to independent method claim 1 discussed above, and similar arguments apply. Dependent claims in each corresponding claim group recite: the system file is saved in a file directory (claims 2, 12, 22, and 32), the directory is compatible with the operating system (claims 10, 20, 30, and 40), the operating system is compatible with a Windows operating system (claims 3, 13, 23, and 33), the image format is a bitmap format (claims 4, 14, 24, and 34), the image has a resolution compatible with the operating system (claims 5, 15, 25, and 35), the transition is a boot-up sequence (claim 6, 16, 26, and 36) or a shut-down sequence (claims 8, 18, 28, and 38), and the system file is a LOGO.SYS file (claims 7, 17, 27, and 37), or a LOGOS.SYS file or a LOGOW.SYS file (claims 9, 19, 29, and 39). As the claim charts in the Petition demonstrate, each of these limitations concerns a feature of the image or system that does not patentably distinguish the claim over the combination of PC Tools and Gerace. Pet. 22–28.

Claim 44 depends from claim 1 and recites that the step of creating content of a system file comprises creating that content before the transition using the image. As Petitioner notes, this feature is found in PC Tools’ disclosure of displaying the image before transitioning to shut-down. Pet. 28.

*Obviousness of Claims 1–40 and 44 Over LogoMania*

Patent Owner acknowledges that Logo Mania “teaches the same three steps as PC Tools, ‘but in more detail,’” and that “from the standpoint of the invention claimed in the ’498 Patent, PC Tools and LogoMania contain effectively the same teachings.” PO Resp. 8 (citing Ex. 2009, Kaliski Tr.,

24:18–22; Nazarian Decl. ¶ 39). To the extent that Logomania and PC tools, teach the same features, we apply our analysis of PC Tools above.

In this challenge to patentability Petitioner cites LogoMania as also disclosing the claimed user profile. Patent Owner argues that LogoMania does not teach the claimed “user profile,” as we have construed that term. *Id.* (citing Kaliski Tr., 25:1–5 as evidence that Dr. Kaliski that had formed no opinion about whether the purported user profile in LogoMania contains characteristics of a user). Patent Owner contends that LogoMania is an example of a graphics editor that PC Tools instructs a user to employ in performing the three steps to select graphics to display during Windows start-up and shut-down. PO Resp. 8.

In our Decision to Institute, we noted Petitioner’s acknowledgement that LogoMania does not employ the term “user profile.” Dec. to Inst. 13 (citing Pet. 29). Instead, we were persuaded by Petitioner’s argument that, by disclosing that a combination of user option settings can produce an interesting background, LogoMania teaches retrieving an image using information that characterizes the preferences of the user. *Id.* (citing Ex. 1006, 5); Pet. 29. Although LogoMania discusses techniques to generate static and animated images, it begins by suggesting that the user replace the Microsoft logo displayed during startup with the user’s own logo: “LogoMania lets you replace the standard logo with your own animated logo bitmap. You can float your company’s logo over a hypnotic moving background . . . or put a color-changing company name in from of a serene mountain landscape.” Ex. 1006, 1. A user’s selection of backgrounds and other image features in displaying its company logo using LogoMania is

indicative of how the software is used to obtain an image that corresponds to a user profile.

At the oral hearing, Patent Owner argued the difference between “obtaining an image” and “creating content of a system file.” Hr’g Tr. 22–25. Patent Owner argued that in the ’498 Patent, knowing the user’s preferences, the computer obtains an image, stores it, and creates content, but that the image obtained is indicative of the user’s preference, while in LogoMania the user creates the content. *Id.* at 28. Petitioner points out that Patent Owner did not assert this argument in the Patent Owner Response. *Id.* at 53. As noted in the Scheduling Order, arguments not made in the Patent Owner Response are waived. Paper 18, 3. We also note that neither party requested that we construe the term “obtaining” or the term “creating.”

In any event, our Decision to Institute addresses a similar argument Patent Owner raised in its Preliminary Response. Dec. to Inst. 13–14 (citing Pet. Resp. 24). We are not persuaded by Patent Owner’s oral arguments because the claims of the ’498 Patent do not include any limitations concerning where or how the image is obtained. Claim 1 recites obtaining an image to be displayed during the transition of an operating system in a computer system. The only limitations claim 1 places on the image are that it is one “having an image format compatible with the operating system” and that it “correspond to a user profile.” The content created is the content of a system file using the image. Claim 4, which depends from claim 3, recites that the image format is a bit map format. Claim 41, which depends from claim 1 recites that the image corresponds to data stored in a BIOS memory.

Claims 11–20 recite program code for obtaining an image and for creating content of a system file using the image. Claims 21–30 recite an

image obtaining code segment for obtaining the image and a content creation code segment for creating content of a system file using the image. Claims 31–40 recite a system having a memory that causes a processor to obtain the image and to create content of a system files using the image. In all cases, however, the claims also limit the image reciting “said image to correspond to a user profile.” Thus, although the image must correspond to a user profile, the claims do not limit how the image is obtained or generated.

Patent Owner argues that creating content based on user preferences is not what the claim calls for because “what the user is doing is creating the content that goes into the system file. But because the image that’s obtained doesn’t say anything about user preferences, the obtained image doesn’t correspond to those user preferences.” Hr’g Tr. 27. According to Patent Owner the image must be obtained before creation occurs, i.e., the claim calls for “obtaining the image before creation ever occurs, and that image has to correspond to correspond before the creating ever occurs to a user preference.” Hr’g Tr. 29.

Patent Owner’s argument fails because independent claims 1, 11, 21, and 31 recite “creat[ing] content of a system file using the image.” This system file is to be “accessed during the transition of the operating system.” Thus, the claims limit the content to be created to the content of a system file that is accessed during the transition of the operating system. The claims do not limit how the image is obtained. There is nothing in the limitation “obtaining the image” that precludes the user from obtaining as the image to be used in creating the system file an image of his own logo as disclosed in LogoMania, i.e., an image corresponding to a user profile. Even when arguing that the ’498 patent is “supposed to be a way to present to the user

*ab initio* something that's reflective of the user's references," Patent Owner acknowledges that "there's nothing in the claims that really talk about a user versus computer doing this [obtaining the image]." *Id.* at 28.

Patent Owner further contends that "LogoMania does not alert a user to opportunities, which the Board found to be a central feature of a 'user profile.'" *Id.* at 9 (citing Nazarian Decl. ¶¶ 30–38). According to Dr. Nazarian, there is no evidence that LogoMania performs this alerting function. Nazarian Decl. ¶ 24 (citing "user profile" in the Decision to Institute as somehow requiring this alerting feature). The subject matter Dr. Nazarian references concerns the non-limiting description of the term "user profile" in the '498 Patent. The Decision to Institute explicitly states

Claim 1 does not limit the sources from which the image may be obtained, nor does claim 1 limit the information that establishes the user profile. . . . The only requirement implicit in the term "user profile" as used in claim 1 is the profile, i.e., the user data that makes up the profile, be associated with the user. Therefore, we construe the term to "user profile" to mean *data describing characteristics of a user, including, but not limited to, user preferences.*

Dec. to Inst. 8 (emphasis added). Contrary to Dr. Nazarian's testimony, there is no alerting function in our undisputed claim construction.

As discussed above, independent computer program product claim 11, independent computer data signal claim 21, and independent system claim 31 correspond generally to independent method claim 1 discussed above, and similar arguments apply. Dependent claims in each corresponding claim group recite: the system file is saved in a file directory (claims 2, 12, 22, and 32), the directory is compatible with the operating system (claims 10, 20, 30, and 40), the operating system is compatible with a Windows operating

system (claims 3, 13, 23, and 33), the image format is a bitmap format (claims 4, 14, 24, and 34), the image has a resolution compatible with the operating system (claims 5, 15, 25, and 35), the transition is a boot-up sequence (claim 6, 16, 26, and 36) or a shut-down sequence (claims 8, 18, 28, and 38), and the system file is a LOGO.SYS file (claims 7, 17, 27, and 37), or a LOGOS.SYS file or a LOGOW.SYS file (claims 9, 19, 29, and 39). As the claim charts in the Petition demonstrate, each of these limitations concerns a feature of the image or system that does not patentably distinguish the claim over LogoMania. Pet. 31–37.

In consideration of the above, we are persuaded that Petitioner has established by a preponderance of the evidence that claims 1–40 and 44 would have been obvious to one of ordinary skill in the art over LogoMania.

*Claims 41–43 and 45 as Obvious Over Lee, Piwonka and either PC Tools and Gerace or LogoMania*

Based on the parties' arguments, we address Petitioner's challenge to claims 41–43 and 45 as obvious over the combination of Lee, Piwonka, PC Tools, and Gearce and the combination of Lee, Pinwonka, and LogoMania together. We first address whether the references disclose the additional elements of the dependent claims, and then address whether a skilled artisan would have been motivated to combine the references.

Claim 41

Claim 41 depends from claim 1 and recites that the image corresponds to data stored in a BIOS memory. Petitioner contends that Lee discloses storing in BIOS memory images and a logo number that corresponds to each image, so that by selecting a logo number, the user may select a logo to be

displayed upon booting the computer system. Pet. 38–39. Petitioner notes that Lee discloses a utility program to store the selected logo number in CMOS RAM, which Petitioner contends is a form of low power memory used to store BIOS configuration settings. Pet. 39 (citing Ex. 1008, col. 6, ll. 35–41; Kaliski Decl. ¶¶ 92–93).

Petitioner contends Piwonka exemplifies that a person of ordinary skill would have known that non-volatile CMOS RAM can be used to store configuration information in an Extended System Configuration Data (ESCD) format, which allows BIOS code to more fully configure a computer system at power up. Pet. 39–40. Piwonka discloses flashing an Extended System Configuration Data (ESCD) and associated variables to a read only memory (ROM). Ex. 1009, Abstract. Piwonka discloses that ESCD allows Plug and Play System Basic Input and Output Services (BIOS) code to more fully configure a computer system at power up by specifying the system resources that have been installed in the system and that System BIOS code is used by the OS to read or write ESCD as the non-volatile storage storing ESCD. Piwonka also discloses that ECSD has traditionally resided in the BIOS memory space (Ex. 1009, col. 5, ll. 28–30) and that it was conventional at that time to update ESCD by accessing the non-volatile memory (Ex. 1009, col. 7, ll. 28–40). As Dr. Kaliaki testifies, ECSD is stored in CMOS RAM. Kaliski Decl. ¶ 94.

On this basis, Petitioner asserts that Lee’s CMOS RAM discloses BIOS memory. Pet. 40 (citing Kaliski Decl. ¶ 95 and the general knowledge of a person of ordinary skill, as exemplified by Piwonka, Ex. 1009, col. 1, ll. 28–30). Petitioner further contends that the combination of Lee and Piwonka is suggested by the need to store the data concerning a user’s

desired logo somewhere in the system, as in Gerace and PC Tools or LogoMania, and that a BIOS memory, such as CMOS RAM is one of a finite number of possibilities. *Id.* at 40.

Patent Owner acknowledges that Lee teaches a logo number stored in CMOS RAM and that Piwonka discloses storing information in CMOS RAM, but argues that CMOS RAM does not correspond to BIOS memory. PO Resp. 10 (citing Nazarian Decl. ¶ 49). However, Petitioner points to contradictory testimony from Patent Owner's expert, Dr. Nazarian, that CMOS RAM stores BIOS data. Pet. Reply, 18 (citing Ex. 1016, Transcript of Deposition of Dr. Shahin Nazarian ("Nazarian Tr.") 105:15–106:3, 107:18–22).

Patent Owner also argues that, because we construed "correspond" to have its ordinary meaning, i.e., having a direct relationship, in the context of the '498 Patent, the data must actually generate the image. *Id.* Claim 41 recites only that the image corresponds to data stored in the BIOS memory. Claim 41 does not recite a specific relationship and does not recite that the data actually generate the image, as argued by Patent Owner. For the reasons discussed above, we conclude that Lee and Piwonka disclose the additional features recited in claim 41.

#### Claim 42

Claim 42 depends from claim 41 and recites that the data is updated during execution of the operating system. Petitioner contends that claim 42 (and claims 43 and 45) recites nothing more than the time when the data or content is updated/created. Pet. 41. Petitioner argues that Piwonka explains that CMOS RAM containing BIOS or configuration data is typically stored in ESCD format and that an operating system uses BIOS to read or write

ESCD traditionally residing in system BIOS memory space. Thus, Piwonka discloses using an executing operating system to update CMOS RAM. *Id.* at 42–43. Petitioner next argues that a person of ordinary skill would understand how to use ESCD during the execution of the operating system to update a logo number stored in CMOS RAM as disclosed by Lee. *Id.* at 43.

Patent Owner contends that although the operating system of Piwonka may initiate ESCD sector, the actual updating happens during the POST that occurs before the operating system is loaded. PO Resp. 11 (citing Ex. 1009, col. 5, ll. 25–27; Nazarian Decl. ¶ 58). Piwonka discloses that ESCD generally allows Plug and Play system BIOS code to configure a computer system at power up by specifying the system resources assigned to devices that have been installed on the system. Ex. 1009, col. 1, ll. 20–24. However, contrary to Patent Owner’s argument Piwonka also explicitly discloses that “ESCD may be updated during a Power-On Self-Test” *or at runtime*. *Id.* at col. 1, ll. 58–59 (emphasis added). Petitioner notes that Patent Owner’s argument ignores Figure 4 of Piwonka, in which step 214 discloses updating ESCD after POST during runtime, when the operating system is active. Pet. Reply 20. Petitioner further notes that Piwonka states “System BIOS code is used by the operating system to read or write ESCD.” *Id.* (citing Ex. 1009, col. 1, ll. 28–29).

Patent Owner also argues that Petitioner fails to identify a teaching in Lee that logo numbers can be updated. PO Resp. 11. However, Petitioner notes the disclosure in Lee of changing a sign-on logo by changing the BIOS noting that Lee demonstrates it was known to store start-up logo related data in a BIOS. Pet. Reply 20–21.

For the reasons discussed above, we conclude that Lee and Piwonka disclose the additional features recited in claim 42.

Claims 43 and 45

Claim 43 depends from claim 1 and recites that creating content of the system file comprises creating content of a system file during the transition using the image. Claim 45 depends from claim 31, and recites that the program code causes the processor to generate the image corresponding to data stored in a BIOS memory, the image to be generated during the transition.

Petitioner contends that Lee explains generating patterns based on a logo during the boot-up phase, which is part of the transition of the operating system. Pet. 45. According to Petitioner, because the newly compounded patterns are made during POST, Lee discloses creating content of a system file during the transition using the image. *Id.* at 46 (citing Ex. 1008, col 4, ll. 57–61, Fig. 8).

Patent Owner contends that Lee explicitly discloses making it less difficult for common users to change the sign-on logo image by eliminating the need to upgrade the BIOS and nowhere discloses how a newly compounded pattern subsequently creates a system file. PO Resp. 12–13. However, as Petitioner points out, although claim 43 is directed to creating the system file just before the contents of the system file are displayed at start-up (the transition of the operating system), claim 43 is not limited to any particular method of creating the system file. Pet. Reply 21–22.

Petitioner also notes that its challenge to claims 41–43 and 45 is based on the combination of Lee and Piwonka with PC Tools and Gerace or the combination of these references with LogoMania that describe LOGO.SYS

files, which are system files. Pet. Reply 23. In consideration of the above, we conclude that the additional features recited in claims 43 and 45 are disclosed by the combination of Lee and Piwonka with PC Tools and Gerace, and the combination of Lee and Piwonka with LogoMania.

*Motivation For Combining the References*

Petitioner argues that it would have been obvious to combine Lee with PC Tools and Gerace or LogoMania because a BIOS memory, such as CMOS RAM, is one of a finite number of possibilities of available memory devices that can store data that corresponds to images and because Lee describes storing a sign on logo number. Pet. 40–41.

Patent Owner contends, generally, that the solution proposed by Lee, i.e., changing a sign-on logo without a software upgrade to the BIOS, and the solution proposed by Piwonka, i.e., a method to update extended ESCD, are mutually exclusive and a person of ordinary skill would not have been motivated to combine their teachings. PO Resp. 9.

In support of the obviousness of the combination, Petitioner responds that Lee demonstrates it was known to store start-up logos in BIOS memory and that Piwonka provides a thorough technical background of CMOS RAM, using ESCD, which is an example of BIOS configuration data stored in CMOS RAM. Pet. Reply 15. Petitioner further points out that its obviousness contentions pertain to how CMOS RAM and that difficulty updating BIOS ROM does not change the fact that Lee and Piwonka show a user's logo selection stored in CMOS RAM. *Id.*

We focus our analysis on the claims and agree that because Lee and Piwonka show a user selection as being stored in CMOS RAM a person of ordinary skill would have been motivated to combine this feature with PC

Tools and Gerace or LogoMania, which concern retrieving start up display information, to arrive at the invention as claimed. Thus, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 41–43 and 45 would have been obvious to one of ordinary skill in the art.

### CONCLUSION

In consideration of the above, we conclude that Petitioner has demonstrated by a preponderance of the evidence that:

Claims 1–40 and 44 are unpatentable as obvious under 35 U.S.C. § 103 over PC Tools and Gerace;

Claims 1–40 and 44 are unpatentable as obvious under 35 U.S.C. § 103 over LogoMania;

Claim 41–43 and 45 are unpatentable as obvious under 35 U.S.C. § 103 over the combination of Lee, Piwonka, PC Tools and Gerace; and

Claims 41–43 and 45 are unpatentable as obvious under 35 U.S.C. § 103 over Lee, Piwonka, and LogoMania.

### MOTION TO AMEND

Patent Owner proposes to amend the '498 Patent by cancelling all existing claims (claims 1–45) and substituting new claims 46–58. Patent Owner identifies certain claims as substituting for one or more of the original claims of the '498 Patent, according to the following table:

| Substitute Claim | Original claim |
|------------------|----------------|
| 46               | 1              |
| 47               | 41             |
| 48               | 42             |
| 49               | 2, 7, 9, 10    |

|    |                                    |
|----|------------------------------------|
| 50 | 11                                 |
| 51 | New - no original claim designated |
| 52 | 12, 17, 19, 20                     |
| 53 | 31                                 |
| 54 | 45                                 |
| 55 | 32, 37, 39, 40                     |
| 56 | New - no original claim designated |
| 57 | New - no original claim designated |
| 58 | New - no original claim designated |

Mot. To Amend 3–6.

On January 12, 2016, we conducted a Motion to amend conference during which we discussed the difference between amending claims during examination and motions to amend claims in *inter partes* review, which is an adjudicatory proceeding, rather than an examination. Paper 26 (“Motion to Amend Conference Summary”), 2–3. As the above table demonstrates, and as discussed further below, Patent Owner’s proposed amendment seeks to obtain a new set of claims with a hierarchy of different scope. As discussed during the motion to amend conference, Patent Owner’s approach is not appropriate for amending claims in *inter partes* review. Paper 26 (“Motion to Amend Conference Summary”), 2–3. In addition, proposed new claims 51, and 56–58 are improper because they are not designated as substituting for any current claims. Patent Owner has presented a claim structure that requires examination and is not appropriate for adjudication in an *inter partes* review.

Although Patent Owner identifies claim 46 as a substitute for claim 1, the claims do not address the same subject matter. Claim 1 recites obtaining an image having a format compatible with the operating system and creating content of a system file using the image. Claim 1 also recites that the system file is to be accessed during the transition of the operating system and that the image corresponds to a user profile. Although Patent Owner contends that proposed substitute claim 46 narrows the scope of claim 1 by reciting where the image is obtained from, i.e. it is generated from downloaded content as opposed to created content (PO Reply to Opp. To Mot. To Amend 3), Petitioner points out that claim 46 improperly broadens claim 1 by eliminating the limitations concerning “an image format compatible with the operating system” and “creating content of a system file using the image.” Pet. Opp. to Mot. To Amend 6. Although proposed claim 46 recites generating a second image and displaying the second image during the transition of the operating system, proposed claim 46 is not limited to accessing a system file during the transition of the operating system. Proposed claim 46 broadens claim 1 because in claim 46 there is no limitation on how or where the second image is generated or accessed. Similar arguments apply to proposed independent claims 50 and 53. Neither proposed claim 50 nor proposed claim 53 recites accessing a system file, as recited in claims 11 and 31, respectively, for which they substitute. Claims depending from proposed independent claims 46, 50, and 53 also fail to include this feature. Thus, we deny the Motion to Amend on this basis.

Proposed claim 46 also recites “downloading a content based on a profile from the server to the computer system, wherein the computer system characterizes the profile under the operating system environment.” Mot. To

Amend 2. Petitioner argues that Patent Owner has not shown where the '498 Patent discloses downloading content based on a user profile. Opp. To Motion to Amend 11. Patent Owner replies that the '498 Patent discloses information gathered from a user and/or the user's computer system is sent to a service center that provides additional content to a user computer based on the user and system profile and that the content is sent to the computer for display. Reply to Opp. To Motion to Amend 8 (citing Ex. 1001, 3–12). Petitioner further contends that nothing in the '498 Patent expressly mentions a profile being developed or characterized under the operating system environment. *Id.* at 11–12. Patent Owner replies that the additional limitation “wherein the computer system characterizes the profile under an operating system environment” means that “[t]his display in the Windows environment of the downloaded content . . . is based upon the user profile.” Reply to Opp. To Mot. To Amend 9.

We first note that proposed claim 46 recites a “profile,” a term that is broader than a “user profile” and is not specifically defined. In addition, the meaning of the language in proposed claim 46 “wherein the computer system [that displays the image] characterizes the profile under the operating system environment” is unclear. Although the operating system may be a Windows OS, as Patent Owner argues, Patent Owner does not cite to a description concerning what it means for the computer system, i.e., the system that displays the image, to “characterize[s] the profile” or what steps the computer takes to characterize the profile. *Id.* at 8–9. Instead, Patent Owner argues that a service center provides additional content based on the user system and profile. *Id.* at 9. That language, however, is not recited in proposed claim 46. We deny the Motion to Amend on this basis as well.

### MOTION TO EXCLUDE

Petitioner moves to exclude the deposition testimony of Dr. Martin Kaliski on the basis that Patent Owner's counsel, George Summerfield, had not been admitted *pro hac vice* before cross examining Dr. Kaliski. Mot. To Exclude 2.

#### *Background Facts*

The following facts are undisputed:

On May 13, 2015, Patent Owner filed a Mandatory Notice identifying George Summerfield, who is not registered to practice at the U.S. Patent and Trademark Office, as Back-Up counsel and stating "To be admitted *Pro Hac Vice*." Paper 12.<sup>7</sup>

There is no record of Petitioner at any time objecting to Mr. Summerfield serving as Patent Owner's back-up counsel.

On July 30, 2015, a Patent Owner Preliminary Response signed by Patent Owner's lead counsel, Christopher Frerking, was filed. Prelim. Resp. 31. At the same time Mr. Summerfield filed a Declaration in this proceeding attesting to the accuracy of certain exhibits and identifying himself as "counsel of record in the afore-captioned matter." Ex. 2007, 2. Petitioner did not object to Mr. Summerfield's actions at that time.

On December 9, 2015, Patent Owner's lead counsel, Christopher Frerking, served notice of Dr. Kaliski's deposition on January 8, 2016. The Notice was filed on January 6, 2016. Paper 23.

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<sup>7</sup> At the oral hearing Petitioner's counsel, Mr. Ganti, incorrectly stated that neither Patent Owner's lead nor back-up counsel was present at Dr. Kaliski's deposition, as Mr. Summerfield had been designated as back-up counsel months earlier. Hr'g Tr. 18.

On January 6, 2016, Patent Owner moved for the *pro hac vice* admission of Mr. Summerfield. Paper 24, Ex. 2008.

On January 8, 2016, on behalf of Patent Owner, Mr. Summerfield conducted the cross examination of Petitioner's expert, Dr. Martin Kaliski.

At the time of the deposition, Petitioner stated its objection to Mr. Summerfield conducting the deposition, but allowed the deposition to proceed. Neither party attempted to contact the Board to arrange a conference concerning Petitioner's objection. Hr'g Tr. 19.

Petitioner did not oppose the *pro hac vice* admission of Mr. Summerfield. *Id.*

#### *Discussion*

A party must designate a lead counsel and at least one back-up counsel who can conduct business on behalf of lead counsel. 37 C.F.R. § 42.10(a). The role of back-up counsel is to conduct business with the Office on behalf of lead counsel when lead counsel is not available. Office Trial Practice Guide. 77 Fed. Reg. 48756, 48758 (Aug. 14, 2012). Actions not conducted before the Office (e.g., taking of deposition) may be conducted by lead or back-up counsel. *Id.* The Board may recognize counsel *pro hac vice* subject to the condition that lead counsel be a registered practitioner and any other conditions as the Board may impose. 37 C.F.R. § 42.10(c). Thus, although our rules require that lead counsel be a registered practitioner, back-up counsel may be counsel admitted *pro hac vice*. At the time of Dr. Kaliski's deposition, Mr. Summerfield, who is not a registered practitioner, was the only back-up counsel designated by Patent Owner.

Patent Owner's filing of its motion to admit Mr. Summerfield *pro hac vice* two days before Dr. Kaliski's deposition precluded Petitioner from acting during the 10 day window during which Petitioner could have opposed the motion. We are troubled by Patent Owner's suggestion that Mr. Summerfield's designation as back-up counsel avoids the problems with a lack of appearance and distinguishes over *Hall v. Southwest Airlines Co.*, 282 F.R.D. 419 (N.D. Tex. 2012). Opp. To Mot. To Exclude 3. Notwithstanding his designation as back-up counsel at the beginning of this *inter partes* review, Patent Owner waited over seven months to file a motion for *pro hac vice* admission for Mr. Summerfield. Patent Owner offers no explanation for this delay.

It was not Petitioner's responsibility to monitor whether Patent Owner moved for Mr. Summerfield's *pro hac vice* admission. However, we also are troubled by Petitioner's failure to seek a conference with the Board at the time of the deposition. Although Petitioner argues it could not have moved to quash the deposition because the notice was signed by lead counsel, Christopher Frerking (Reply to Opp. To Mot to Exclude 4), it appears that Petitioner's counsel was aware that Mr. Summerfield would conduct the cross examination at least several days, and possibly several weeks, before the deposition took place. Hr'g Tr. 47, 49. Petitioner does not allege any prejudice as a result of Mr. Summerfield conducting the cross examination or argue that Mr. Summerfield behaved improperly during the deposition. Mot. To Exclude 4. Instead, Petitioner contends we should exclude the evidence as a matter of policy to demonstrate that our rules concerning *pro hac vice* admission must be taken seriously and to discourage others from

acting in a similar manner, particularly in the case of deposition testimony and arguments that become part of the trial record. *Id.* at 4–6.<sup>8</sup>

Petitioner contends that allowing the deposition to take place did not cure its objection to the deposition. Reply to Opp. To Mot. To Exclude. 1–2. Dr. Kaliski’s deposition took place on January 8, 2016. Petitioner could have opposed Mr. Summerfield’s *pro hac vice* admission until January 16, 2016. However, notwithstanding Mr. Summerfield’s conduct, to which Petitioner objected, Petitioner did not oppose Mr. Summerfield’s *pro hac vice* admission. Had Petitioner opposed Mr. Summerfield’s admission on the basis that he conducted the deposition without proper authorization, the issue could have been addressed earlier in the proceeding and another deposition scheduled, if it was determined that Mr. Summerfield would not be admitted and the deposition transcript would not be entered. Instead, Petitioner elected to delay the matter until the last possible date for filing a Motion to Exclude. Thus, even if Petitioner’s objection was not cured when Petitioner permitted the deposition to proceed without contacting the Board, Petitioner’s subsequent failure to oppose Patent Owner’s Motion for Admission *pro hac vice* implies at least some degree of consent.

The parties conduct in this case does not warrant excluding Dr. Kaliski’s deposition transcript from evidence. We do not condone Patent Owner’s unreasonable delay in seeking *pro hac vice* admission of Mr. Summerfield, and under other circumstances our ruling might be different. However, in this case, the absence of prejudice and Petitioner’s failure to

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<sup>8</sup> Petitioner also argues that Patent Owner’s conduct in this case is not an isolated incident, and that it occurred in several cases. However, all those cases are related to this proceeding and have been treated as a family.

oppose Mr. Summerfield's admission, even though Petitioner had the opportunity to do so, lead us to conclude that Petitioner's Motion to Exclude should be denied.

ORDER

In consideration of the above it is:

ORDERED that claims 1–45 are unpatentable:

FURTHER ORDERED that Patent Owner's Motion to Amend is DENIED;

FURTHER ORDERED, that Petitioner's Motion To Exclude is DENIED; and

FURTHER ORDERED, that because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2015-01079  
Patent 6,373,498 B1

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