Trials@uspto.gov
Tel: 571-272-7822

Paper 9
Entered: November 21, 2013

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HEWLETT-PACKARD COMPANY
Petitioner

v.

MPHJ TECHNOLOGY INVESTMENTS, LLC
Patent Owner

Case IPR2013-00309
Patent 6,771,381 B1

Before SALLY C. MEDLEY, MICHAEL P. TIERNEY, and KARL D. EASTHOM, *Administrative Patent Judges.*

EASTHOM, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, Hewlett-Packard Company, filed a revised Petition requesting an *inter partes* review of claims 1-15 of U.S. Patent No. 6,771,381. Paper 6 ("Pet."). Patent Owner, MPHJ Technology Investments LLC, did not file a Preliminary Response. We have jurisdiction under 35 U.S.C. § 314.

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a):

> THRESHOLD – The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Pursuant to the defined threshold under 35 U.S.C. § 314(a), the Board institutes an *inter partes* review of claims 1-15 of the '381 Patent.

A. Related Proceedings

According to Petitioner, the '381 Patent is involved in a declaratory judgment action, *Engineering & Inspection Services, LLC v. IntPar, LLC*, No. 13-0801 (E.D. La., date not listed), and, with related patents, is also the subject of a consumer protection lawsuit, *Vermont v. MPHJ Tech. Investments LLC*, No. 282-5-13 (Ver. Sup. Ct. May, 2013) (MPHJ filing notice of removal to D. Vt., June 7, 2013 (No. 2:13-cv-00170)). *See* Pet. 1; Ex. 1016. The '381 Patent is related to U.S. Patent No. 7,986,426, which is the subject of another *inter partes* review, IPR2013-00302.

B. The '381 Patent

The '318 Patent describes the "Virtual Copier" (VC) system. The system enables a personal computer user to scan paper from a first device and copy an electronic version of it to another remote device, or integrate that electronic version with a separate computer application in the network. *See* Ex. 1001, Abstract.

According to the '318 Patent, "VC can be viewed as a copier. Like a copier, VC takes paper in, and produces paper going out. The only difference is that VC does not distinguish between electronic and physical paper." *Id*. at col. 71, ll. 62-65.

The VC extends from "its simplest form" to its "more sophisticated form":

> In its simplest form it extends the notion of copying from a process that involves paper going through a conventional copier device, to a process that involves paper being scanned from a device at one location and copied to a device at another location. In its more sophisticated form, VC can copy paper from a device at one location directly into a business application residing on a network or on the Internet, or [vice] versa.

Id. at col. 5, ll. 46-52.

The VC includes "five essential modules": input module, output module, process module, client module, and server module. "Each module is a counterpart to an aspect that is found on a conventional copier." *Id*. at col. 71, l. 66 – col. 72, l.1. Notwithstanding that the latter sentence refers to each module, the '318 Patent ambiguously states that "[t]here is no counterpart to VC's Server Module on a conventional copier." *Id*. at col. 72, ll. 59-60. In any event, the other four modules have "counterparts" on "conventional" copiers: "The Input Module manages paper or electronic paper entering VC. . . . The counterpart to VC's Input Module on a conventional copier is the scanner subsystem." *Id*. at col. 72, ll. 5-13. "The Output Module manages paper or electronic paper exiting VC. . . . The counterpart to

VC's Output Module on a conventional copier is the printer or fax subsystem." *Id.* at ll. 14-23. "The Process Module applies processing to the electronic paper as it is being copied. . . . The counterpart to VC's Process Module on a conventional copier is the controller." *Id.* at ll. 24-34. "The Client Module presents the electronic paper as it is being copied, and any relevant information related to the input or output functions. . . . The counterpart to VC's Client Module on a conventional copier is the panel." *Id.* at ll. 34-45. "Unlike conventional copiers, VC's Server Module is a unique subsystem that can communicate with the other modules as well as third-party applications." *Id.* at ll. 44-47.

Figure 28 of the '381 patent, reproduced below, represents an embodiment of VC:

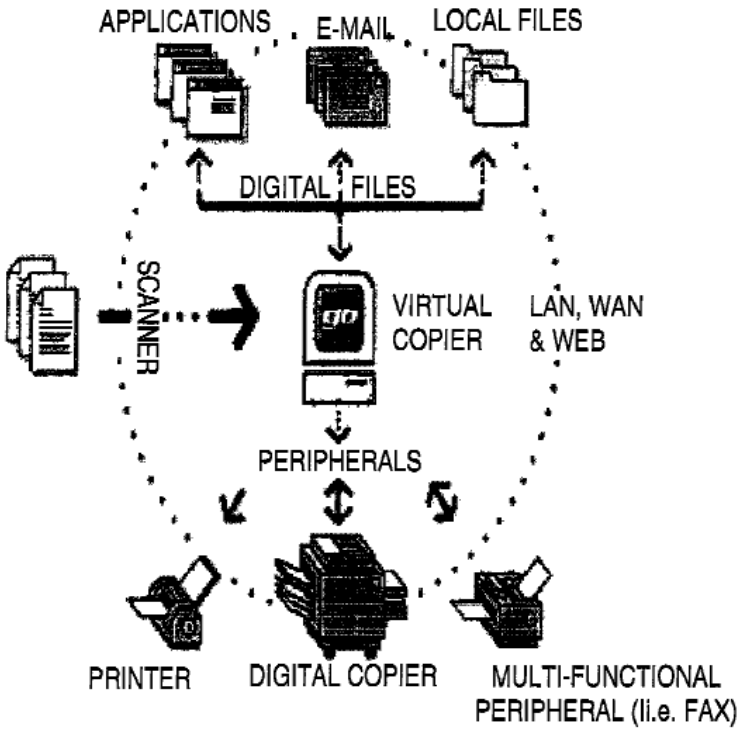

FIG. 28

Figure 28 depicts various peripheral devices attached to a Virtual Copier on a network. *See id.* at Abstract.

C. Exemplary Claim

Of the challenged claims, claims 1 and 12-15 are independent. Challenged claim 1 follows:

> 1. A computer data management system including at least one of an electronic image, graphics and document management system capable of transmitting at least one of an electronic image, electronic graphics and electronic document to a plurality of external destinations including one or more of external devices and applications responsively connectable at least one of locally and via the Internet, comprising:
>
> at least one memory storing a plurality of interface protocols for interfacing and communicating;
>
> at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software application for interfacing and communicating with the plurality of external destinations including the one or more of the external devices and applications, wherein said software application comprises at least one of:
>
> at least one input module managing data comprising at least one of paper and electronic paper input to the computer data management system, and managing at least one imaging device to input the data through at least one of a scanner and a digital copier, and managing the electronic paper from at least one third-party software applications;
>
> and at least one module communicable with said at least one input, output, client, and process modules and external applications, and capable of dynamically combining the external applications with at least one of digital capturing devices and digital imaging devices.

D. References Relied Upon

Petitioner relies upon the following references:[1]

Dow, U.S. Patent No. 6,611,291 B1 (Aug. 26, 2003, filed Aug. 7, 1998) (Ex. 1010);

Cotte, U.S. Patent No. 5,499,108 (Mar. 12, 1996) (Ex. 1011);

HP Network ScanJet 5 Scanner User's Guide (2nd ed. October, 1997) (Ex. 1006, "SJ5");

Technical Support Solutions Guide, HP ScanJet 4Si Scanner (1995) (Ex. 1007, "SJ4Si");

HP 9100C Digital Sender User Guide (2nd ed. 2001) (Ex. 1008, "9100C");

HP LaserJet 3100 Product User's Guide (1st ed. April 1998) (Ex. 1009 "HP3100"); and

"HP Introduces Next-Generation Network Scanner" (1997) (Ex. 1015, "SJ5PR").

E. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability under 35 U.S.C. §§ 102 and 103:

Claims 1-15 as anticipated under 35 U.S.C. § 102(b) by SJ5;

Claims 1-12 as anticipated under 35 U.S.C. § 102(a) by SJ4SI;

Claims 1-15 as anticipated under 35 U.S.C. § 102(a) by HP3100;

[1] The '381 Patent claims priority by continuation to U.S. Provisional Application 60/108,798 (filed November 13, 1998), and by continuation-in-part to several provisional applications (filed October 18, 1996). Ex. 1001, col. 1, ll. 7-31. However, Petitioner maintains that the Office did not recognize priority to October 18, 1996. Pet. 3. The Office records, along with the face of the '381 Patent, indicate that November 13, 1998 is the effective priority date. The Board proceeds pursuant to that indication.

Claims 1-15 as anticipated under 35 U.S.C. § 102(a) by HP9100C;

Claims 1-15 as anticipated under 35 U.S.C. § 102(e) by Dow;

Claims 1-15 as anticipated under 35 U.S.C. § 102(b) by Cotte;

Claims 1-4, 6, 8, 10, and 14 as anticipated under 35 U.S.C. § 102(b) by SJ5PR;

Claims 5, 7, 9, 11-13, and 15 as obvious under 35 U.S.C. § 103(a) over SJ5PR and SJ5. Pet. ii.

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, "[a] claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b); *see also Office Patent Trial Practice Guide*, 77 Fed. Reg. 48756, 48766 (Aug. 14, 2012) (Claim Construction). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a special definition or other consideration, "limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

The Board construes the following claim phrases and terms:

At least one, at least one of, and related phrases

Claim 1 and most of the other claims recite the phrase "at least one" or "at least one of" in a number of places. For example, claim 1 recites "*at least one*

input module managing data comprising *at least one of* paper and electronic paper input to the computer data management system, and managing *at least one* imaging device to input the data through *at least one* of a scanner and a digital copier, and managing the electronic paper from *at least one* third-party software applications" (emphases added).

The phrase "at least one input module" means "one or more input modules." *See Rhine v. Casio, Inc*., 183 F.3d 1342, 1345 (Fed. Cir. 1999) ("Use of the phrase 'at least one' means that there could be only one or more than one."). Petitioner proposes that a related type of phrase, "at least one of A and B," means "at least one of A or B." *See* Pet. 4. Under some situations, according to *Superguide Corp. v. DirecTV Enters. Inc*., 358 F.3d 870, 886 (Fed. Cir. 2004), the plain meaning of "at least one of A and B" is "at least one of A and at least one of B." Quoting a "common treatise on grammar," *Superguide* focuses on an example wherein the preposition "in" precedes a list (i.e., "'[i]n spring, summer, or winter' means 'in spring, in summer, or in winter'"), and reasons that the phrase "'at least one of,' modifies each member of the list, i.e., each category in the list." *Id*. (quoting example in William Strunk, Jr. & E.B. White, *The Elements of Style* 27 (4th ed. 2000) (brackets from *Superguide*)). However, *Superguide* points out that the specification involved there does not enlarge the scope of the plain meaning, and reasons that each term in the list embraces a different category, each of which must take on a chosen value: "Every disclosed embodiment teaches that the user must choose a value for each designated category." *Id*. at 887 ("Importantly, the flow chart uses a conjunctive criteria list, i.e., the system's user must choose at least one value for each designated criteria, or the logic would be inoperable.").

Accordingly, *Superguide* has been distinguished on the basis that the normal conjunctive meaning does not apply when the specification or claims imply a

broader meaning. *See Joao v. Sleepy Hollow Bank*, 348 F. Supp. 2d 120, 124 (S.D.N.Y. 2004) (a conjunctive reading of the phrase, "wherein the banking transaction is at least one of a clearing transaction, a check clearing transaction, an account charging transaction, and a charge-back transaction," would be nonsensical because a single banking transaction cannot be all four).[2]

Following the principles outlined *supra*, the claim 1 phrase, "at least one input module managing data comprising at least one of paper and electronic paper," is reasonably broad enough to be read in the alternative. For example, the phrase encompasses one input module managing data from electronic paper, such as from a software application. The claims and Specification do not invoke a conjunctive reading for that phrase or similar phrases. For example, claim 1 does not reference, necessarily, different categories of paper, or different categories of electronic paper.

Moreover, the Specification of the '381 Patent indicates the intent to treat different inputs and outputs, and perform the other recited functions, in the alternative, using separate input modules for each type of input, and separate output modules for each type of output. In other words, at least one or more modules perform at least one or more of certain functions, and each module is tailored specifically to one type of device or application:

[2] At least one practitioner describes an established contrary view of the plain meaning prior to *Superguide*, which published after the earliest possible effective filing date of the '381 Patent: "It is therefore better practice to avoid the word 'or.' Several accepted techniques for doing this were developed in the past. One was to recite 'at least one of element A and element B,' which is equivalent to 'or' but avoids the troublesome word itself." Allen Wood, *Drafting Patent Claims for use in the United States in Mechanical and Electrical Cases*, at 23 (2003), http://www.awoodpatents.com/claims_booklet_(rev._nov_28__03).pdf.

> [I]n order to support outputting to a third-party application, an Output Module is developed that is unique to that third-party application. Likewise, an Input Module is developed that is unique to a third-party application in order to support reading images from that application.
>
> It is the optional Input and Output Modules that render VC extendable. For each third-party application there is a unique pair of Input and Output Modules that understand the third-party application, and how to copy images to and from that application. . . . In this way[,] Virtual Copier can grow indefinitely, to support any number of third-party applications.
>
> The significant point is that the Input and Output Modules have their own interface, and can be developed independently from any other module. As long as the input and output Module conform to the API specified in this document it will plug-and-play with VC. VC will be able to mix and match the custom Input and Output Module with its standard and other custom Input and Output Modules.

Ex. 1001, col. 9, ll. 19-39.

Other examples refer to modules and their functions in the alternative: "The Input Module manages paper *or* electronic paper entering VC. This module manages imaging devices to input paper through, scanners, MFPs, *or* the new breed of digital copiers. The Input Module also manages reading electronic paper from third-party *or* proprietary applications." *Id*. at col. 8, ll. 6-11 (emphases added). The Specification also states that the Virtual Copier's "GO button can copy paper, whether physical or electronic, from one device and[/]or application to another device and/or application." *Id*. at col. 6, ll. 44-46. In other words, the Specification consistently reveals an intent to treat choices alternatively, and in some cases, blurs distinctions, by grouping "and" and "or" together.

Accordingly, the claim 1 phrase, "at least one input module managing data comprising at least one of paper and electronic paper input to the computer data management system, and managing at least one imaging device to input the data through at least one of a scanner and a digital copier, and managing the electronic

paper from at least one third-party software application," is interpreted to embrace one or more input modules each managing one or more of the recited functions. The managing functions may overlap.

Claim 1 also recites the phrase "at least one module communicable with said at least one input, output, client, and process modules and external applications, and capable of dynamically combining the external applications with at least one of digital capturing devices and digital imaging devices." The phrase reasonably requires the "at least one module" to be communicable with at least one input module, output module, client module, or process module, or external applications. As noted, the term "at least one" means "one or more," and the preposition "of" is not recited in this claim phrase, unlike the claims at issue in *Superguide.* Hence, the above-listed phrase in claim 1 means one or more modules communicable with one or more input, output, client, or process modules, or external applications.

The Specification supports the interpretation, by stating that the server module functions to create a variety of systems in the alternative, as follows:

> Server Module-Unlike conventional copiers, VC's Server Module is a unique subsystem that can communicate with the other modules as well as third-party applications. . . . A virtual copier can be created with VC by combining a scanner with a printer, or by combining a scanner with an application; or by combining an application with an image printer. . . . There is no counterpart to VC's Server Module on a conventional copier.

Ex. 1001, col. 8, ll. 44-60.

In general, phrases of the type "at least one of A and B," appear throughout the claims and Specification, usually in terms of functions performed by "one or more modules." Based on the foregoing discussion, unless otherwise noted, at this juncture, phrases of the type discussed here, "at least one of A and B," and "at least A and B," are interpreted in the alternative, i.e., "one or more A or B."

Third-party software application

The terms "third-party software application," or "applications," recited in claim 1, and other claims, do not preclude software that resides in printers, scanners, or other devices. The Specification refers to "third-party" software as "proprietary" software. *See* Ex. 1001, col. 8, l. 11. It also refers to "business applications (such as Microsoft Office, Microsoft Exchange, Lotus Notes)." *See id*. at col. 5, ll. 56-57; col. 46, ll. 19-21. The Specification also refers to copying paper "from one device and[/]or application to another device and/or application," thereby broadly blurring any distinction between a device and a device having a software application. *See id*. at col. 6, ll. 44-46. Therefore, the terms mean a program that may or may not be on a device.

Managing

Claim 1 requires that the input module manages data. The Specification does not specify what "managing," in the context of data, means. Managing may include "conventional copier . . . scanner subsystem" commands. *See id*. at col. 8, ll. 13-14. In other words, managing may require receiving or transferring the data, and possibly, but not always, transforming the data to conform to a specific format. As noted in the discussion of the phrase "at least one of," some disclosed modules are tailored as a specific plug-and-play modules, indicating that each module may perform a custom transform function. *See also* Ex. 1001, col. 9, ll. 22-24 (input module "is unique to a third-party application in order to support reading images from that application"). Therefore "managing" means sending or employing signals to facilitate receiving or transmitting data, or transforming data, or both.

Module

Claim 1 recites a "computer data management system" comprising "at least one input module," "at least one module," and "at least one input, output, client,

and process modules and external applications." Petitioner does not propose a definition for "module."

One plain meaning of "module" is "[a] distinct and identifiable unit of a computer program for such purposes as compiling, loading, and linkage editing." MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS 1285 (5th Ed. 1994) (Ex. 3001). Another plain meaning of "module," which is similar, but broader slightly, is "a logically separable part of a program. *Note:* The terms 'module,' 'component,' and 'unit' are often used interchangeably or defined to be sub-elements of one another in different ways depending upon the context. The relationship of these terms is not yet standardized." IEEE 100 THE AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS SEVENTH EDITION 704 (2000), *available at* http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4116801 (last visited Sept. 19, 2013).

As noted *supra*, the '381 Patent states that input and output modules are unique to each third-party printer or scanner application, and "understand the third-party application, and how to copy images to and from that application." Ex. 1001, col. 49, ll. 59-61. The '381 Patent also states that "[t]he Client Module is generally simply an interface to the Server Module." *Id*. at col. 50, ll. 15-16. As also noted *supra*, the modules also have "counterparts" in prior art copier or scanner systems. In other words, modules may include other modules and may overlap in functionality.

In addition, the '381 Patent states that the modules all "support COM-based interfaces for simple and direct support from all major Windows development environments." Ex. 1001, col. 9, ll. 59-61. On the other hand, the '381 Patent

indicates that the "standard COM component" constitutes a mere example, and that modules can have different structure:

> The computer architecture is implemented, *for example*, as a *standard COM component*, as an ActiveX control; the specifications designed by Microsoft, published in the technical literature, and incorporated herein by reference. ActiveX control (COM) support is currently available within any Microsoft 32-bit Windows operating environment. ActiveX controls are supported by all OLE-based applications, including all of Microsoft's end-user products (e.g., Microsoft Office, Word, Access, Powerpoint, Access), the main Internet Browsers (Microsoft's Internet Explorer and Netscape's Navigator--the latter with an add-in product and by 4Q97 directly), most other name-brand end-user Windows products (e.g., Lotus Notes), and all major development environments (e.g., Microsoft Visual Basic and Visual C++, Delphi, Borland C++, Power Builder). By implementing the architecture as, for example, an ActiveX control, complex technologies can be programmed by virtually any Windows or Intranet user or developer. *Of course, other component specifications may also be used*.

Id. at col. 53, ll. 30-48 (emphasis added). In addition to embracing "standard COM components," and "other component specifications," the '381 Patent embraces "many other languages (e.g. Java) and distributed architectures (e.g., COBRA)." *Id*. at col. 53, ll. 49-53. The '381 Patent also indicates that typically, in the prior art, "[e]very engine, such as text retrieval or an OCR (Optical Character Recognition) engine, has a unique interface. This interface is generally a 'C'-level API (Application Program Interface)." *Id*. at col. 53, ll. 54-57. However, the '381 Patent does not specify that each module must have a unique or a generic interface. Claim 10 supports this interpretation, by specifically claiming "at least one server module application programmer interface (API)."

According to the foregoing discussion, the '381 Patent is consistent with both ordinary meanings of a module. Therefore, each "module," as recited in the

claims, is a logically separable part of the claimed data management system, and a module may include another module and overlap with another module in functionality.

Seamlessly

Claim 3 recites the phrase "wherein the computer data management system includes the capability to integrate an image using software so that the image gets seamlessly replicated and transmitted to one of other devices and applications." The '381 Patent Specification refers to a "simple solution," delivering "paper processing to existing Intranet and client-server business processes without any fuss," so that "an office clerk" can "easily copy a report from a desktop scanner to the company's Intranet-networked copier." Ex. 1001, col. 46, ll. 42-47. In light of the Specification, the term "seamlessly" means "a low amount of effort," or "easily."

Go operation

Claim 5 recites "wherein the computer data management system includes an interface that enables copying . . . using a single 'GO' operation." The '381 Patent describes a "GO operation" as similar to a "START" (button) operation on a conventional copy machine. Ex. 1001, col. 46, l. 66 – col. 47, l. 3. Further, "[t]his GO button can copy paper, whether physical or electronic, from one device and[/]or application to another device and/or application," *id*. at col. 47, ll. 7-9, and "the user simply has one sequence to execute: select From, select To, and then press GO," *id*. at ll. 30-33. In light of the Specification, the term means "an operation that begins a process."

Modules object, program object, document object, and system management event object

Claim 11 recites "COM-based interfaces" including "at least one modules object maintaining a first list of available input, output, and process modules." The '381 Patent does not provide a definition for a modules object. The '381 Patent states that "a preferred embodiment . . . has, for example, the following structure illustrated in FIG. 36[;] however, *alternative structures and/or functionality may optionally be used for this object and/or other objects used in the present invention*." Ex. 1001, col. 75, ll. 8-12 (emphasis added). Figure 36 portrays a box with the following text in the box: "Collections of Copier[]Module objects, of types Input[]Module, Output[]Module, and Process[]Module respectively." No apparent structure is depicted.

Accordingly, a "modules object" has "alternative structures and/or functionality" and represents a program or file. The phrase "at least one modules object maintaining a first list" means one or more programs, files, or other structures, each of which can store, or point to, a list or portions of a first list. (The term "maintain" is discussed below.)

Claim 11 also recites "at least one program object maintaining a second list," "at least one document object maintaining information," and "at least one system management event object used to provide feedback." Figure 36 also depicts five boxes, without specifying any type of structure, with the boxes labeled as follows: "Object," "Collection," "Property," "Method," "Event." These objects, according to the '381 Patent, as noted *supra*, also have "alternative structures and/or functionality." Therefore, all the claimed objects include similar definitions: one or more programs, files, or structures, for performing the designated functions.

Means-plus-function limitations, maintain

Claims 9 and 13 each recite a "server module" that includes the same four means-plus-function limitations. Claim 9 depends from claim 7, which depends from claim 1, and recites "wherein the server module includes" the four means-plus-function limitations. However, "the server module" recited in claim 9 lacks antecedent basis. For purposes of this proceeding, "the server module" recited in claim 9 is interpreted either to refer back to "at least one module communicable," which is recited in claim 1, or to refer to an additional module, a server module.

In general, the '381 Patent describes the server module as follows: "a scheduler of activities, providing the information and initiating the modules at the appropriate time in the virtual copy operation. The Server Module manages the other Modules. It does not know about the internal workings of the modules, nor the contents of the information being copied." Ex. 1001, col. 74, ll. 44-49.

The server module recited in dependent claim 9 and independent claim 13, includes, *inter alia*, the following four means-plus-function limitations:

> enable virtual copy operation means for initiating, canceling, and resetting said computer data management system;
>
> maintain list of available module means for maintaining a registry containing a list of said input, output, and process modules that can be used . . . , said list being read on startup, and maintaining another copy of said list in a modules object accessible by said input, output, client, process and server modules;
>
> maintain currently active modules means for maintaining said input, output, and process modules currently being used, . . . and saving the currently active modules in a process template file; and
>
> maintain complete document information means for maintaining information . . . and saving the information in a document template file.

As claimed, the word "maintain" precedes three of the means clauses. As disclosed, and as discussed *supra*, a modules object in the server module maintains a list of input, process, and output modules. Ex. 1001, col. 74, ll. 54-55. The word "maintain," in the context of the claims, and normally, means "[t]o preserve or retain" for a certain time period. *See* THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 787 (1975). Therefore, claims 9 and 11 generally recite three preserving, keeping, or retaining means clauses.

These means-plus-function limitations invoke 35 U.S.C. § 112, ¶ 6.[3] Petitioner asserts that "virtually no structure is provided corresponding to these means." Pet. 6. Apparently, Petitioner refers to a lack of algorithmic structure.

Regarding "enable virtual copy operation means for initiating, canceling, and resetting said computer data management system," recited in claim 9, the '381 Patent generally describes that "[t]he Server Module supports simple methods that accomplish the basic copier functionality of go, cancel, and reset." Ex. 1001, col. 78, ll. 13-15. The '381 Patent also indicates that the reset function involves returning to default settings. *Id*. at col. 82, ll. 38-42. The discussion *supra* of the Go operation similarly shows that the corresponding structure encompasses basic copier structure, including known algorithms associated with the known hardware structure. Accordingly, the corresponding structure for the enable copy operation means clause includes the "basic" buttons, processor, and memory to process and store known begin, stop, and reconfigure algorithms; i.e., corresponding to known structure in prior art copiers or scanners.

[3] Section 4(c) of the Leahy-Smith America Invents Act ("AIA") re-designates 35 U.S.C. § 112, ¶ 6, as 35 U.S.C. § 112(f). Because the '381 Patent's filing date antecedes September 16, 2012, the effective date of AIA, the pre-AIA version of 35 U.S.C. § 112 applies.

In general, the common corresponding structure for each of the final three means clauses recited in claims 9 and 13 appears to include memory for storing specific programs, lists, or information, in the nature of files, or registries. *See* Ex. 1001, col. 74, ll. 8-33. As indicated *supra*, the '381 Patent discusses objects in the context of structure that appears to be, on this record, associated somewhat with the functions involved here, and the '381 Patent embraces broad structure for the objects (*see* construction of objects *supra*). Therefore, the "maintain list of available module means" corresponds to a generic listing algorithm and memory that stores, or points to, a list of modules. The "maintain currently active module means" corresponds to a generic storing algorithm and memory that stores, or points to, the active input, output, and process modules. The "maintain complete document information means" corresponds to a generic algorithm and memory that stores, or points to, information regarding a current document or file being copied.

Patent Owner will have an opportunity, in its Patent Owner Response, to inform the Board as to its construction of the means-plus-function (and other) limitations or to forgo that opportunity, leaving the Board with the intrinsic record and Petitioner's construction. Any claim construction of a means-plus-function should set forth the corresponding structure disclosed in the specification that performs the claimed function, including any computer or microprocessor, computer program, and algorithm. *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.").

Merely referencing a specialized computer, or some undefined component of a computer system, or elements that are essentially black boxes designed to

perform the recited function, will not be sufficient, because there must be some explanation of how the computer or the computer component performs the claimed function. *See Blackboard, Inc. v. Desire2Learn, Inc*., 574 F.3d 1371, 1383-85 (Fed. Cir. 2009); *Net MoneyIN, Inc. v. VeriSign, Inc*., 545 F.3d 1359, 1366-67 (Fed. Cir. 2008).

Claims 8 and 12, certain phrases

Claim 8 recites "wherein the one or more of the external devices and applications integrates the computer data management system into an external application via one of running the computer data management system, as an external service and embedding the computer data management system as an embedded service." Based on the claim language, "one of" refers to running and embedding, and means one of running or embedding. The claim does not define a relative internal system for the "external" application. Claim 8 depends from claim 1 and requires that the computer data management system includes a memory and a processor. It is not clear how that hardware portion of the claimed management system can be integrated by embedding or running anything. Accordingly, based on this record, integrating by one of embedding and running, means that the computer data management system exists as, runs as, or was built as, part of another (i.e., external) application.

Claim 12 recites "[a] computer data management system" that includes a "single function copy operation linking devices," "a one step programming method, . . . a method of recreating a module oriented copier in software," and "a copier interface." Claim 12 recites phrases that appear to place the claim into two statutory categories, "process" and "machine," which is impermissible under 35 U.S.C. § 101. For purposes of this proceeding, the "one step programming method" is interpreted to describe functional characteristics of a machine, and

includes a method of making the "electronic business processes" in the machine, so that the system (a machine) includes "a module oriented copier in software," and was made "with no or minimal reprogramming." Typically, however, as is the case here, how the system was made is not afforded patentable weight, because nothing in the Specification indicates that after it has been made, it would behave differently than a system that required more than minimal reprogramming.

B. Asserted Grounds of Unpatentability

1. Cotte – Anticipation, Claims 1-15

Relying on the Wibbels Declaration, Ex. 1005, Petitioner reads the elements of claims 1-15 onto Cotte's scanning network system. Pet. 42-50. Cotte generally describes an integrated system that produces scanned document data that can be sent to a host computer and e-mailed, faxed, or printed. Ex. 1011, Abstract, Fig. 10, col. 10, ll. 42-58. Cotte's paper input device

> senses the insertion of a document to be scanned, initiates a host computer process, i.e., controls the host process by insertion of the paper and symbols on the paper, scans the images and text on the paper, . . . send[s] the scanned data to the host for further electronic processing such as display, transmission, storage or modification. Principally, this new technology is a paper input device using scanning technology which controls the host computer rather than the other way around.

Id. at col. 2, ll. 42-51.

> Cotte also discloses that
>
> the user can put the document in the paper input device and the input device software will automatically scan the document, send the data to the host in any of the ways described herein, and the input device software resident on the host will then cause a pop-up window to appear on the screen where the image of the scanned document appears.

Id. at col. 16, ll. 58-63.

One way to send data involves symbol recognition software: "the input device includes symbol recognition software that can recognize symbols on the document to be scanned which indicate where the document is to be FAX'ed, sent as E-mail, etc." *Id*. at col. 11, ll. 27-31.

According to the '381 Patent, "VC can be viewed as a copier," even though "VC does not distinguish between electronic and physical paper." Ex. 1001, col. 71, ll. 62-65. It follows, based on the foregoing description of the two systems, that the two systems are similar, at least in terms of the functionality as a basic copier operating on electronic and physical paper.

The preamble of claim 1 follows:

> A computer data management system including at least one of an electronic image, graphics and document management system capable of transmitting at least one of an electronic image, electronic graphics and electronic document to . . . one or more of external devices and applications . . . connectable at least one of locally and via the Internet.

Cotte discloses the preamble, according to the discussion *supra* and Petitioner's showing. For example, as described *supra*, Cotte's system manages the host computer and sends an image and text to an external e-mail system, or to a fax system, which shows that Cotte's system is "connectable at least one of locally and via the Internet," as the claim 1 preamble recites. *See* Pet. 43; Ex. 1011, Fig. 10.

Claim 1 also recites the following limitations: "at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software application" and "at least one memory storing a plurality of interface protocols for interfacing and communicating." Cotte discloses microprocessor 352 implementing software for controlling

operations of the input device that is stored in ROM/RAM 132. *See* Ex. 1011, Fig. 11A. For example, the microprocessor controls scan inputs and outputs between fax inputs and outputs. Accordingly, as Petitioner and Mr. Wibbels explain, Cotte's processor, which implements this stored software for fax and input communications, satisfies the listed limitations. *See* Pet. 43; Ex. 1005 ¶ 298; Ex. 1011, col. 8, ll. 39-55; col. 10, ll. 32-55.

Claim 1 also recites

> at least one input module managing data comprising at least one of paper and electronic paper input . . . , and managing at least one imaging device to input the data through at least one of a scanner and a digital copier, and managing the electronic paper from at least one third-party software applications.

To satisfy the input module limitation, Petitioner relies on Cotte's scanner, input device 114 at Figure 11A, which includes the stored fax protocol discussed *supra*. Pet. 43; Ex. 1005 ¶ 298. Specifically, in Cotte, the "input device software controlling the[ ]microprocessor 352 includes software routines to send the appropriate commands to the Fax modem to control its operations in sending the scanned data as a Fax." Ex. 1011, col. 9, ll. 8-12. Therefore, because managing data includes controlling the transfer of the data pursuant to a conventional scanner subsystem, as discussed in the Claim Construction section, Cotte's input device software routines manage paper and electronic paper, through the scanner, an imaging device, thereby satisfying at least the first two recited functions of the input module.

Cotte also implies that input software routines automatically control data between the host and the fax modem, in both directions. *See* Ex. 1011, col. 8, ll. 39-56. Controlling this fax data transfer also satisfies the first, second, and third input module functions, the third being "managing the electronic paper from at

least one third-party software application[]." Further, Cotte also discloses that the "input device includes symbol recognition software that can recognize symbols on the document to be scanned which indicate whether the document is to be FAX'ed, sent as E-mail, etc." Ex. 1011, col. 11, ll. 27-31. The claimed input module functions also read on that process, because the symbol recognition software helps to manage electronic paper from a scanner using symbol software, which constitute a third-party application.

Claim 1 also recites "at least one module communicable with said at least one input, output, client, and process modules and external applications, and capable of dynamically combining the external applications with at least one of digital capturing devices and digital imaging devices." Petitioner maintains that Cotte discloses the following: "A module in communication with an input module. Upon receiving a scanned image, other modules attach a scanned image to a clipboard, an email, or send it as a fax." Pet. 43 (citing Ex. 1011, col. 10, ll. 43-53, FIG. 17, and Ex. 1005 ¶ 295).

> At the cited passage, Cotte discloses host software, which includes
>
> > a drop down menu 250 presenting options to the user regarding what should be done with the scanned image. These menu options can be such things as "FAX this image" as symbolized by icon 253 or "Send this image as an E-mail message" as symbolized by icon 255, or "Send this image to the laser printer for printing" as symbolized by icon 257 . . . .

Ex. 1011, col. 10, ll. 43-50.

Cotte's drop down menu teaches "at least one module communicable with said at least one input . . . modules," such as the input module identified *supra*. The menu (including its program) is "capable of dynamically combining" the external e-mail or fax application with at least digital capturing devices or digital imaging devices, such as, for example, the scanner.

In a related manner of recognizing symbols on scanned paper to further implement faxing, printing, storing, or e-mailing thereof, Cotte's system provides for the input device software "to invoke specific types of software commonly found on user's computers or to invoke specific 'macros' or predefined sequences of instructions." Ex. 1011, col. 11, ll. 47-49. These macros also represent, under one alternative, "at least one module communicable with said at least one input" module. The input device software also corresponds to at least one communicable module, even if it contains or invokes other modules, as discussed *supra* in the Claim Construction section.

The symbols, software for creating same, the e-mail system, or fax system, comprise external applications, which are capable of being combined with "at least one of digital capturing devices and digital imaging devices," as claim 1 also requires.

Pursuant to the foregoing discussion, Petitioner establishes a reasonable likelihood of prevailing on the ground of unpatentability of claim 1 as anticipated by Cotte.

Claims 2-7 depend from claim 1. Claim 2 further requires "a printer, a facsimile, and a scanner." Cotte discloses these devices as discussed *supra*, and as Petitioner discusses. *See* Pet. 44.

Claim 3 requires "the capability to integrate an image using software so that the image gets seamlessly replicated and transmitted to at least one of other devices and applications, and via the Internet." Mr. Wibbels notes that Cotte discloses sending a scanned image "automatically" in an e-mail; therefore, Cotte provides seamless replication and transmission, and skilled artisans would have understood that this e-mail capability also implies Internet capability. *See* Ex. 1005 ¶¶ 291,

297; Pet. 44. Petitioner establishes a reasonable likelihood that claim 3 reads on Cotte's system.

Claim 4 further requires the capability to integrate images into a destination application without modifying that application. Mr. Wibbels relies on destination applications that satisfy the limitation, including e-mail, fax, clipboard storage, printing, and insertion into a drawing file. *See* Ex. 1005 ¶¶ 295-296; Pet. 44; Ex. 1011, col. 11, ll. 23-53; col. 21, ll. 6-15.

Claim 5 further requires enabling copying images using "a single 'GO' operation." Petitioner sufficiently shows that claim 5 reads on Cotte's drop down menu icons, described *supra*, or the other buttons, described next. *See* Pet. 44.

Claim 6 recites a similar limitation, "at least one of electronic document and paper processing with a single programming step." Petitioner essentially relies upon Cotte's copy button for that limitation. *See* Pet. 44 (citing Ex. 1011, col. 19, ll. 40-42; col. 20, ll. 43-52, 55-60, Fig. 17; and Ex. 1005 ¶ 300). Figure 17, cited by Petitioner, displays a number of single operation buttons, including "Photocopy" button 257. Figure 22 similarly discloses a copy button 310. Pressing the button causes the system to scan the image and send it to a printer for copying. *See* Ex. 1011, col. 19, ll. 42-48. Accordingly, Petitioner sufficiently shows that claim 6, like claim 5, reads on Cotte's drop down menu icons or the other buttons.

Claim 7 recites "wherein the software application comprises: at least one output module . . . at least one process module . . . ; and at least one client module." Each module performs certain functions, which pertain to the module type. As indicated *supra* in the Introduction, the '381 Patent states that the modules have "counterparts" in conventional copier systems, thereby indicating that functions performed by the modules may be conventional.

Addressing the output module functions, Petitioner cites to Cotte's system, which "[m]anage[s] an input scanner to receive data that is faxed to another computer or system," and "[s]oftware output . . . used to communicate data to various external devices, e.g., sending scanned data to a printer." Pet. 45. Claim 7 recites the following one or more output modules:

> at least one output module managing the data output from the computer data management system, managing at least one imaging device to output the data to at least one of a standard Windows printer, an image printer, and a digital copier, and managing the output of the data to the third-party software application.

Petitioner's citations appear to rely on Cotte's software that manages data output from a scanner and outputs it to a printer or faxes it to another computer or system, for example, as E-mail, or third-party software. Pet. 45 (citing Ex. 1011, col. 8, ll. 38-52; col. 10, ll. 49-50; col. 18, ll. 52-55). Petitioner also points to block 328 in Figure 23, which has the following label: "send image data to laser printer." The preceding block, block 326, has the following label: "scan image of document." Block 328 represents at least one output module that manages data output from the system, by managing data from at least one imaging device, the scanner, to output data to a laser image printer. Block 328 also represents an output module that manages the output of the data to the third-party software application, because a laser printer implicitly includes third-party software, as discussed *supra* in the Claim Construction section. Similar to the discussion of the input module, the output module may perform some data transformation to conform to a specific device and/or application, or may perform functions akin to the "conventional copier . . . printer or fax subsystem." Ex. 1001, col. 8, ll. 22-23.

In addition, or alternatively, Cotte discloses block 344 at Figure 24, which includes a "configuration preferences file," which, in turn, dictates what each menu

button does, by checking a "script." Choices include "'send this as a FAX,'" or "'insert this scanned image into drawing file XXXX REV 2.'" Ex. 1011, col. 21, ll. 10-12. Such block, file, or script further comprises "at least one output module" for "managing the output of the data to the third-party software application," such as a facsimile application or drawing file application.

Claim 7 also recites "at least one process module." Petitioner maintains that gray scale pixel processing, or scanning according to instructions on a scanned paper, read on the recited module(s). *See* Pet. 45. Cotte discloses "the job of the recognition software portion of the input device software" as recognizing symbols and translating the symbols into commands for later processing by another "proper software package." Ex. 1011, col. 13, ll. 8-22. The recognition or translation portions of the recognition software, or the proper software package, corresponds to at least one process module that performs the "at least one data processing" and "additional functionality" as recited in claim 7. Cotte's gray scale pixel processing, and data compression, respectively represented in boxes 264 and 266 at Figure 18, also correspond to a process module or modules, which "apply[ ] multiple processes to a single virtual copy," as claim 7 further requires. *See* Ex. 1011, col. 17, ll. 5-30.

Claim 7 also recites "at least one client module" presenting the paper or electronic paper data and "information related to at least one of the input and output functions." Petitioner relies on Cotte's pop-up displays, which display the incoming electronic paper data, as reading on these client modules. Pet. 45. Figure 17 displays a typical pop-up menu showing different options for incoming pages. Ex. 1011, col. 16, ll. 60-66; col. 18, ll. 50-55. Claim 7 requires the client module to present the electronic paper data, and information related to at least one of the input and output functions. Displaying the pages constitutes presenting

paper and electronic paper data, because the data reveals relative gray scale data values or document types, etc., while portraying written output options for archiving, photocopying, mailing, and faxing, constitutes providing the requisite input and output function information. *See* Ex. 1011, col. 17, ll. 5-10, Fig. 17. Petitioner sufficiently shows that Cotte anticipates claim 7.

Claim 8 essentially requires the computer management system to be integrated into an external application with an external device and application by running the system, as discussed *supra*, in the Claim Construction section. Petitioner points to an embodiment that includes part of the input device software running on the host computer. *See* Pet. 45-46 (citing Ex. 1011, col. 10, l. 60 – col. 11, 1. 5; col. 18, ll. 46-51; Ex. 1005 ¶ 305). Another embodiment has the computer management software stored inside of RAM and running with a processor in the input device. Ex. 1011, col. 8, ll. 37-39. Therefore, the computer management system software is integrated with an external application and external device and application by running part of it on the host and part of it on the external scanning device. *See* Ex. 1011, Fig. 11A. Petitioner sufficiently shows that Cotte anticipates claim 8.

Claim 9 depends from claim 7 and recites a server module that includes four means-plus-function limitations, as discussed *supra*. Claim 13 is similar to claim 9 and also recites a server module that includes the same four means-plus-function limitations. Cotte's input device software includes copy button and other typical algorithms. *See* Ex. 1011, Fig. 23 (box 320 states "has photocopy button been pushed?"). The input device software, or the drop-down menus discussed *supra*, correspond to "server module" recited in claims 9 and 13. Modules, as noted *supra*, including the server module, may include other modules.

Addressing the first recited means-plus-function limitation in claim 9, "enable virtual copy operation means for initiating, canceling, and resetting said computer data management system," Petitioner points to the means and functions disclosed in connection with Figures 13A and 23 of Cotte. *See* Pet. 46. Block 330, part of the input software, represents initiating, timeout, and default determinations, which respectively correspond to the three recited functions. *See* Ex. 1011, col. 19, ll. 56-61; col. 20, ll. 23-48; Fig. 23.

The enable copy means reads on Cotte's algorithms and hardware, because the '381 Patent embraces known structure, and includes a copy button and associated software, according to the Claim Construction and Introduction *supra*.

The second recited means-plus-function limitation follows: "maintain a list of available module means for maintaining a registry containing a list of said input, output, and process modules that can be used, . . . said list being read on startup, and maintaining another copy of said list in a modules object accessible by said input, output, client, process, and server modules." Petitioner points to a menu of options as a list on a hard disk "(used at startup of a copier) and RAM (used during operation of a copier) to 'determine what software packages are resident.'" Pet. 46. Mr. Wibbels also declares that a skilled artisan would have understood in a Windows implementation that the "menu of options" would be stored in files that would be maintained in a registry. Ex. 1005 ¶ 308. Petitioner's showing is reasonable. Cotte's system checks the hard disk and the RAM to generate menu options. *See* Ex. 1011, col. 15, ll. 36-42; *see* Ex. 1005 ¶¶ 308, 320.

The third recited means-plus-function requires the currently active modules to be maintained in a program object, and saving said modules in a process template file. Petitioner and Mr. Wibbels essentially indicate that this means-plus-function clause reads on a normal Windows implementation, which includes

template files. *See* Pet. 46; Ex. 1005 ¶¶ 308-309. This appears reasonable on this record, because the currently active modules necessarily would be the object of the software implementing it, including the input software, and the modules would be stored on the computer. As indicated *supra*, corresponding structure for such broad functions appears to be an accessible portion of memory and known algorithms for accessing the memory. Petitioner makes a similar showing for the final recited means-plus-function clause. *See* Pet. 46; Ex. 1005 ¶¶ 308-310. Accordingly, Petitioner's demonstrates a reasonable likelihood that Cotte anticipates claims 9 and 13.

Claim 10 depends from claim 7 and requires a server module to "include[] at least one server module application programmer interface (API)." According to Mr. Wibbels, Cotte specifically discloses Macintosh applications as an example and also contemplates other applications, including "a Windows operating system using corresponding Windows components, such as COM-based interfaces." Ex. 1005 ¶ 312 (citing Ex. 1011, col. 1. l. 24; col. 2, l. 8; col. 23, ll. 19-22; col. 8, ll. 13-15; Fig. 10; col. 10, ll. 43-53; Fig. 17). The cited passages, including the generic reference to "[m]any computers," support the declared theory that skilled artisans would have contemplated that Cotte discloses "a Windows operating system," because such systems were well-known, and according to the '381 Patent, include "standard COM components." Ex. 1001, col. 53, l. 31; *see also* the module discussion in the Claim Construction section. Accordingly, Petitioner demonstrates a reasonable likelihood that Cotte anticipates claim 10.

Claim 11 depends from claim 10 and recites "at least one server module" that includes lists of available and currently selected modules, and document and program objects, which all appear to be implicit, based on this record, in a prior art system, such as Cotte's. *See* Pet. 47; Ex. 1005 ¶¶ 294-317. The recited lists are

similar to the lists discussed *supra* in connection with claim 9. Petitioner demonstrates a reasonable likelihood that Cotte anticipates claim 11.

Independent claim 12, recites, *inter alia*, a system claim that includes "single function copy operation linking devices; . . . a one step programming method . . . with no or minimal reprogramming . . . , a method of recreating a module oriented copier in software; [and] . . . a copier interface." The limitations are similar to those discussed *supra* in connection with claims 1-5 and 10. Accordingly, Petitioner relies on its showings with respect to claims 1-5 and 10. *See* Pet. 47-48.

For example, Cotte's drop down menu, which provides options and single step copies and transmissions, and other features as discussed in connection with claims 1 and 5, read on the claimed "copier interface" and "single function copy operation linking devices." *See* Pet. 47-48; Ex. 1005 ¶¶ 299, 319, Fig. 17.

The recited "method" steps are construed, as noted *supra*, as defining the final structure and including process limitations as to how the system has been built – resulting in a modular system that was built with minimal reprogramming. Cotte's system employs modules and minimally impacts the host system, as explained *supra*, and according to Mr. Wibbels. *See* Ex. 1005 ¶ 295. As another example, Cotte discloses that "the manufacturer can 'pretrain' the symbol recognition software . . . to be shipped with the software for the input device to invoke specific types of software commonly found on user's computers or to invoke specific 'macros' or predefined sequences of instructions." Ex. 1011, col. 11, ll. 44-49. In other words, the shipped software can be implemented on a host as a single step, with minimal or no reprogramming to the host, to invoke software commonly found on the hosts. In addition, after Cotte's system has been built one time, it requires no *reprogramming*. Finally, according to the Claim

Construction section, how the system was built does not create a structural distinction.

Claims 14 and 15 recite elements and phrases that are the same as or substantially similar to the elements and phrases discussed above. Petitioner points to its showings with respect to claims 1, 5, 10, and 12 and also relies on the Wibbels Declaration. *See* Pet. 49-50 (citing Ex. 1005).

Accordingly, Petitioner establishes a reasonable likelihood of prevailing on the ground that Cotte anticipates claims 1-15.

2. SJ5 – Anticipation, Claims 1-15

SJ5 describes "[t]he HP Network ScanJet 5 scanner[, which] can scan items such as memos, letters, brochures, photographs, newspaper clippings, and advertisements and store and distribute them electronically." Ex. 1006, 11. It works on a network with one or more personal computers, including Microsoft Windows based computers. *See* Ex. 1006, 12.

SJ5 further discloses the following system capabilities:

> Scanned documents are sent to the destinations you select at the scanner control panel using public and private destination lists. When you send a scanned document, it can arrive at one or more of the following destinations:
>
> • The application you have designated as your *inbox* in the HP Network ScanJet 5 Utility. From the inbox, it can be further distributed to other users via e-mail, and so forth, imported as a graphic into other applications or read into word processing applications using the OCR feature.
> • The inbox of another registered user or multiple registered users.
> • A fax machine.
> • An Internet e-mail address.
>
> If you have the PaperPort software installed on your computer or on

> your network, you can send a scanned document directly to the application you have designated in your automatic workflow in the HP Network ScanJet 5 Utility. In addition, at the scanner control panel you can select the printer to which to copy a scanned document.

Ex. 1006, 18.

In other words, SJ5 describes a system that is similar to the disclosed invention. Claim 1 recites "at least one memory storing a plurality of interface protocols for interfacing and communicating" and "at least one processor responsively connectable to said at least one memory, and implementing the plurality of interface protocols as a software application for interfacing and communicating with the plurality of external destinations including one or more of the external devices and applications." To show the external destinations, Petitioner points to OCR software disclosed in SJ5. Pet. 9 (citing Ex. 1006, 12, 93, 97; Ex. 1005 ¶ 117). As to the interface protocols, Petitioner relies on "[i]nstall software," instructions for installing software, such as Utility, PaperPort, and OCR software. According to SJ5, the install program is somewhere on the network or on an installation CD. Ex. 1006, 12. SJ5 describes the installation process as follows: "You can install either from the network or from the installation CD." *Id.*

Petitioner appears to rely on inherency, essentially asserting that the SJ5 system's installation software must be stored in memory with interface protocols. *See* Ex. 1005 ¶ 117; Pet. 8. Mr. Wibbels declares that "to apply the process of OCR, the ScanJet 5 requires a processor in communication with the memory that is storing the software." Ex. 1005, ¶ 117. The system includes a personal Microsoft Windows 386 or 486 computer. Ex. 1006, 12. At this juncture, it appears that to use software in a network, including fax, e-mail, OCR, and other applications, as SJ5 discloses, protocols necessarily must be stored and processed by a processor. Therefore, SJ5 discloses at least one processor that invokes installation software

and also "implement[s] the plurality of interface protocols . . . for interfacing and communicating with the plurality of external destinations," as claim 1 requires. *See* Ex. 1005 ¶ 119 (citing Ex. 1006, 47).

Claim 1 also recites "at least one module communicable with said at least one input, output, client, and process modules." According to Mr. Wibbels, "one skilled in the art would understand that a system that links to external applications would include a module capable of combining the digital imaging device with the linked external applications." Ex. 1005, ¶ 119 (citing Ex. 1006, 47). Software corresponding to the linking function, and the corresponding Link Bar, constitutes at least one communicable module. *See* Pet. 12 (discussing the PaperPort Link Bar as corresponding to the server module recited in claim 10).

Software implicit in the scanner corresponds to at least one input module. Software implicit in a printer, fax, e-mail or other applications corresponds to at least one output module. *See* Pet. 9. The scanner control panel, or the work station inbox, correspond to the at least one client module. *See* Ex. 1006, 15, 18. Icons associated with Link Bar software, including icons and workflow processes associated therewith, correspond to the at least one process module. For example, the OCR module processes scanned documents, and another implicit software module converts scanned spreadsheets into "editable numbers." *See id*. at 89. Adobe™ Acrobat™ Reader constitutes another process module. *See id*. at 12. Therefore, Petitioner sufficiently shows that SJ5 anticipates claim 1.

Claim 2 further recites "a printer, a facsimile, and a scanner." SJ5 discloses these devices as discussed *supra,* and as Petitioner discusses. Pet. 9; Ex. 1006, 18. Petitioner sufficiently shows that SJ5 anticipates claim 2.

Claim 3 requires "the capability to integrate an image using software so that the image gets seamlessly replicated and transmitted to at least one of other devices

and applications, and via the Internet." The ScanJet 5 Utility software allows scanned devices to be sent to an inbox and "distributed to other users via e-mail" or "imported as a graphic into other applications or read into word processing applications using the OCR feature." Ex. 1006, 18. Users can "scan documents to an Internet e-mail address." *Id*. at 19. Petitioner also relies on "automatic workflow[s]" implemented in the PaperPort software to show that the process is seamless. *See* Pet. 9; Ex. 1006, 35. On this record, Petitioner shows that claim 3 reads on the SJ5 system.

Claim 4 further requires the capability to integrate images into a destination application without modifying that application. The discussion *supra* in connection with claim 3 applies to claim 4. Petitioner also refers to using icons on the Link Bar. Pet. 9; Ex. 1006, 89. On this record, Petitioner shows that claim 4 reads on the SJ5 system.

Claim 7 recites at least one output module, at least one process module, and at least one client module, including certain functions associated therewith. These modules are discussed *supra* in connection with claim 1. SJ5 discloses the certain functions associated with these modules, where, as noted, SJ5 discloses a similar system to that described in the '381 Patent, and the '381 Patent discloses that the modules have counterparts in prior art copiers and scanners. *See* Pet. 10. Petitioner sufficiently shows that SJ5 anticipates claim 7.

Claims 9 and 13 each require a "server module" that includes means-plus-function limitations that involve maintaining lists or other functions, or objects involving lists, as discussed *supra*. Claim 11 is similar and recites a "server module" that includes objects maintaining lists and information and performing copy functions. Petitioner refers to a PaperPort Link Bar as corresponding to at least one server module API (application programmer interface). *See* Pet. 12.

According to SJ5, all program files are stored "on the network and will be shared with others in your workgroup." Ex. 1006, 14. Sharing implies an accessible list of available programs to share. Also, the system contemplates accessible copies: "Registered users can create private destination lists by copying destinations from the public destination list and creating their own destinations." *Id*. at 16. A display on the scanner control panel in SJ5 displays user and destination lists. *Id*. at 15. The destination lists include a wide variety of inputs, outputs and workflows as described *supra*. Also, the system contemplates accessible copies: "registered users can create private destination lists by copying destinations from the public destination list and creating their own destinations." *Id*. at 16.

With further respect to the lists in claims 9, 11, and 13, Petitioner refers to "an output destinations list in ScanJet 5 Utility." Pet. 12. Mr. Wibbels also explains that ScanJet 5 utility provides for the creation of automatic workflows. Ex. 1005 ¶ 137. According to Mr. Wibbels, these features imply to skilled artisans that SJ5 provides "a list of available input, output, and process modules to be stored in the system." *Id*. Mr. Wibbels further describes that lists of active processes and programs would be stored in a registry as part of disclosed troubleshooting methods. *See id*. at ¶ 132.

Based on the foregoing discussion, Petitioner sufficiently shows that PaperPort software and Scan Jet software constitute at least one server module that includes the claim elements recited in claims 9, 11, and 13, which for the most part, at this juncture, appear to embrace well-known copy management structure, according to the broad disclosures in the '381 Patent and the discussion *supra*. *See id*. at ¶¶ 130-148. Petitioner and Mr. Wibbels describe how SJ5 reads on the remaining elements of claims 9, 11, and 13.

Claim 14 recites limitations that are similar to the limitations recited in claim 1. Relying on the Wibbels Declaration, Petitioner persuasively discusses the remaining claims, including claims 5, 6, 8, 10, and 12. *See* Pet. 10-13. Based on the foregoing discussion, and considering that SJ5 discloses Windows-based modules and a system that is similar to the disclosed invention, Petitioner establishes a reasonable likelihood of prevailing on the ground that SJ5 anticipates claims 1-15. *See* Pet. 8-15 (citing Ex. 1005).

3. Remaining Asserted Grounds of Unpatentability

Petitioner asserts additional grounds of unpatentability, as listed in Section I.E., *supra*. The additional grounds are denied as redundant in light of the determination that there is a reasonable likelihood that the challenged claims are unpatentable based on the grounds of unpatentability on which we institute an *inter partes* review. *See* 37 C.F.R. § 42.108(a).

III. CONCLUSION

The Petition demonstrates a reasonable likelihood of prevailing on the following grounds of unpatentability: anticipation of claims 1-15 by Cotte and by SJ5.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that pursuant to 35 U.S.C. § 314, an *inter partes* review is hereby instituted as to claims 1-15 of the ’381 Patent for the following grounds of unpatentability:

1. Claims 1-15 for anticipation by Cotte; and
2. Claims 1-15 for anticipation by SJ5;

FURTHER ORDERED that no other grounds of unpatentability set forth in the Petition are authorized for the *inter partes* review as to claims 1-15 of the '381 Patent;

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

FURTHER ORDERED that an initial conference call with the Board is scheduled for 10:00 AM ET on Dec. 17, 2013. The parties are directed to the *Office Trial Practice Guide*, 77 Fed. Reg. 48756, 48765-66 (Aug. 14, 2012) for guidance in preparing for the initial conference call, and should be prepared to discuss any proposed changes to the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial.

For Petitioner:

Stuart Meyer
Jennifer Bush
Fenwick & West LLP
Smeyer@fenwick.com
jbush@fenwick.com

For Patent Owner:

Scott Horstemeyer
N. Andrew Crain
THOMAS | HORSTEMEYER, LLP
scott.horstemeyer@thomashorstemeyer.com
andrew.crain@thomashorstemeyer.com