

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WASHINGTON INVENTORY SERVICES d/b/a WIS INTERNATIONAL,
Petitioner,

v.

RGIS, LLC,
Patent Owner.

Case CBM2014-00158
Patent 8,606,658 B2

Before JAMES T. MOORE, LYNNE E. PETTIGREW, and
GEORGIANNA W. BRADEN, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Washington Inventory Services, doing business as WIS International, (“Petitioner”) filed a Petition requesting a review of U.S. Patent No. 8,606,658 B2 (Ex. 1001, “the ’658 patent”) under the transitional program for covered business method patents pursuant to § 18(a) of the Leahy-Smith

America Invents Act¹ (“AIA”). Paper 1 (“Pet.”). RGIS, LLC (“Patent Owner”) filed mandatory notices. Paper 7.

On January 26, 2015, we instituted a covered business method patent review as to claims 1–19 of the ’658 patent. Paper 12 (“Dec. to Inst.”). Patent Owner filed a Response (Paper 20, “PO Resp.”), to which Petitioner filed a Reply (Paper 26, “Reply”). Petitioner also filed a motion to exclude evidence (Paper 29), which has been opposed by Patent Owner. Paper 32. Petitioner replied to the opposition. Paper 33.

Counsel for both Petitioner and Patent Owner were present and presented argument at an oral hearing held on October 6, 2015.²

The Board has jurisdiction under 35 U.S.C. § 6(c).

In this final written decision, issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73, we hold that challenged claims 1–19 of the ’658 patent are unpatentable under 35 U.S.C. §§ 103 and 101.

We also deny the Petitioner’s motion to exclude evidence.

B. The ’658 Patent

The ’658 patent relates to a method for verifying inventory. Ex. 1001, 1:44–45. The ’658 patent states that a remote verification device is deployable from a control desk to a specified area within a facility to acquire certain verification data. Ex. 1001, Abstract. Once acquired, the verification data is compared with the inventory records on the verification device to determine a verification status. *Id.* The particular mode of verification may be user-selected on the verification device or device-prompted based on the inventory records, the verification data, or other

¹Pub. L. No. 112-29, 125 Stat. 284, 329 (2011).

² A transcript (“Tr.”) of the oral hearing is included in the record. Paper 39.

parameters. *Id.* If verified successfully, the verification device communicates the verification data and/or verification status to the control desk. *Id.* If not successfully verified, the verification device may be used to acquire inventory data for replacing the inventory records or providing an alert related to the discrepancy. *Id.*

A flow chart illustrative of the method of the '658 patent is shown in Figure 2, reproduced below.

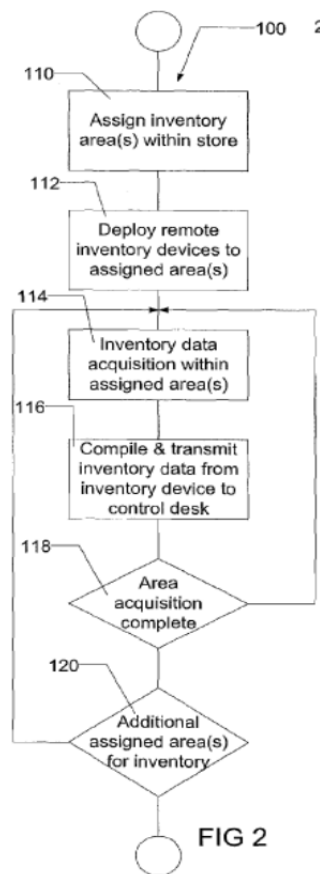


Figure 2 is a flow chart illustrating an example of the '658 patent.

C. Illustrative Claims

Of the challenged claims, claims 1 and 15 are the only independent claims, and they are directed to a method and a system, respectively.

Claims 2, 3, 5, 6, 11, 12, 13, 14, and 18 each depend directly from claim 1.

Claim 4 depends directly from claim 3, claim 7 depends directly from claim 6, claims 8 and 9 depend directly from claim 7, and claim 10 depends directly from claim 9.

Claim 15 is drawn to an inventory verification system including a control desk, a portable verification device, a display device, and a local area network. Claims 16, 17, and 19 depend directly from claim 15.

Claims 1 and 15, reproduced below, are illustrative of the claims at issue:

1. A method for inventory verification comprising:

downloading an inventory dataset having downloaded inventory data for a completed area from a control desk to a remote verification device;

selecting a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes, wherein the plurality of verification modes include at least two of the following verification modes: piece count verification, unique UPC verification, reasonability verification and random verification;

deploying the remote verification device to the completed area;

acquiring verification data in the completed area with the remote verification device based on the selected verification mode;

computing a verification status on the remote verification device based on a comparison of the verification data with the downloaded inventory data; and

displaying the verification status on the remote verification device.

Ex. 1001, 6:2–22; Pet. 6–7.

15. An inventory verification system comprising:
- a control desk including a dataset having inventory data;
 - and
 - a portable verification device including:
 - a data input module having a keypad operable to enter data and a scanner operable to read and decode a barcode symbology for acquiring verification data, a verification module operable to select a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes, to compare the verification data with the inventory data and to generate a verification status, wherein the plurality of verification modes includes at least two of the following verification modes: piece count verification, unique UPC verification, reasonability verification and random verification; and
 - a display apparatus operable to display information including the verification status; and
 - a local area network for enabling wireless communication between the control desk and the portable verification device, the local area network including:
 - a first wireless network interface controller (WNIC) operable to transmit data signals from the control desk and receive data signals to the control desk; and
 - a second wireless network interface controller (WNIC) operable to transmit data signals from the verification device and receive data signals to the verification device;
 - wherein the first WNIC transmits data signals with the inventory data that are received to the second WNIC and wherein the first WNIC receives data signals with verification data that are transmitted from the second WNIC.

Ex. 1001, 7:12–8:10, Pet. 7–8.D. *Prior Art Reference Alleged to Support Unpatentability*

The following prior art reference was asserted in the instituted ground:

Name	Publication Number	Publication Date	Exhibit
Whitehouse	US 2007/0262142 A1	Nov. 15, 2007	1005

E. Alleged Grounds of Unpatentability Instituted in Trial

The following table summarizes the challenges to patentability that were instituted for covered business method patent review:

Reference	Basis	Claims Challenged
N/A	§ 101	1–19
Whitehouse	§ 103	1–19

F. Covered Business Method Patent Standing

We determined, in the Decision to Institute, that the '658 patent is a covered business method patent as defined in § 18(a)(1)(E) of the AIA and 37 C.F.R. § 42.301, because at least one claim of the '658 patent is directed to a covered business method. Dec. to Inst. 6–9. Patent Owner does not dispute our previous analysis in its Patent Owner Response. Thus, after considering the record as a whole, we reaffirm our determination in the Decision to Institute and conclude that the '658 patent is eligible for a covered business method patent review. *Id.*

G. Witness Testimony in this Proceeding

There are multiple witnesses who provided testimony on the merits of these proceedings. We outline them below for ease of reference throughout this decision.

Mr. Melucci

Mr. Robert J. Melucci (hereinafter “Mr. Melucci”) submitted a declaration in support of the Petition, Exhibit 1006. He testifies as an expert witness, and is compensated for his testimony. Ex. 1006 ¶ 2. His background includes over 40 years of experience in industry developing hardware and software for information management systems. *Id.* ¶ 8. He also has experience in developing accounting, management, and other

software systems. *Id.* ¶ 11. He has a B.A. in Mathematics, with emphasis in Computer Science, an M.S. in Systems Management, and a Certificate in Data Processing. *Id.* ¶ 9–10. We find him qualified to testify as an expert based upon his education and experience. Patent Owner deposed Mr. Melucci. Ex. 2004.

Mr. Henry

Mr. Todd W. Henry (hereinafter “Mr. Henry”) submitted a declaration in support of the Petition, Exhibit 1010. He is an employee of Washington Inventory Services, International, who filed the Petition. Ex. 1010 ¶ 2. He is a fact witness and provides testimony relating to the Inventory Services Industry, based upon his experiences in it. *Id.* ¶ 7 et seq. Petitioner provides several customer inventory manuals as evidence to supplement Mr. Henry’s testimony. *See, e.g.,* Ex. 1011; Ex. 1012; Ex. 2013. We permitted use of the redacted versions of the manuals to preserve confidential information of customers. Paper 8, at 3–4. Patent Owner deposed Mr. Henry. Ex. 2003.

Dr. Jagannathan

Srinivasan Jagannathan, Ph.D., M.B.A. (hereinafter “Dr. Jagannathan”) submitted a declaration (Exhibit 2001) in support of the Patent Owner’s Response (Paper 20). He is compensated for his work as a salaried employee; his employer bills him out on an hourly basis plus expenses. Ex. 2001 ¶ 3. Dr. Jagannathan holds a B. Tech in Computer Science & Engineering, a Ph.D. in Computer Science, and an M.B.A. in Finance. His practical experience is focused mostly on computer programming and architecture. *Id.* ¶ 5–8. Although Dr. Jagannathan does not claim to have experience in inventory management, we nonetheless find Dr. Jagannathan qualified to testify in this matter as an expert witness based

upon his education. *See infra* Section III. Petitioner deposed Dr. Jagannathan. Ex. 1021.

II. ANALYSIS

A. Claim Interpretation

Petitioner bears the burden of proof that Patent Owner’s claims are unpatentable under §§ 101 and 103. We begin our analysis with claim construction. *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012) (“[I]t will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.”).

In a covered business method patent review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.300(b) *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–80 (Fed. Cir. 2015) (“Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA,” and “the standard was properly adopted by PTO regulation.”); *accord Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1328 (Fed. Cir. 2015) (“[T]hough the rules governing IPR matters at issue in *Cuozzo* will not necessarily govern all PGR/CBM matters, we see no basis for distinguishing between the two proceedings for purposes of the PTAB’s use of BRI in claim construction here.”).

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 at the time of the invention in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257

(Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term 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 definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Neither Petitioner nor Patent Owner contends with any particularity that the specification of the '658 patent, as filed, specifically defined a new meaning for any term, different from the ordinary recognized meaning for any term. Patent Owner does urge that terms within the claims must include certain additional elements, as discussed below.

We previously construed the terms “verification” and “piece count verification” in the Decision to Institute. Dec. to Inst. 10–12. During the course of the trial, neither party challenged our constructions of these claim terms. PO Resp. 19–20; Reply 1–4. After considering the complete record, we see no reason to alter the constructions of these claim terms as set forth in the Decision to Institute, and we incorporate our previous analysis for purposes of this decision. Therefore, for the reasons set forth in the Decision to Institute, we interpret the following claim terms of the '658 patent as below:

Term(s)	Interpretation
“verification”	“product counts, Universal Product Code, Stock Keeping Unit, or other identifying information, for particular items of inventory acquired for purpose of being compared to inventory data”

Term(s)	Interpretation
“piece count verification”	“comparing the total number of items in an area to the total number of items from the inventory data for that area”

See Dec. to Inst. 10–12.

We need to interpret the following additional claim elements in light of Patent Owner arguments directed to these elements.

1. “*remote verification device*”

Challenged independent claim 1 recites the use of a “remote verification device.” Ex. 1001, 6:5–22. We did not construe this term in the Decision to Institute.

Patent Owner asserts that the broadest reasonable construction is “a computer that includes a data input module, a verification module, a display, and *a wireless network interface*.” PO Resp. 20 (emphasis added). Patent Owner supports its position with the declaration of Dr. Jagannathan. See Ex. 2001. Dr. Jagannathan testifies about the definition of certain claim terms, and then generally uses the text of the ’658 patent specification to support his definition. See, e.g., Ex. 2001 ¶¶ 26, 30, 32, 33. The witness states he has applied “the broadest reasonable interpretation of the claim terms of the [’]658 patent that is generally consistent with the terms’ ordinary and customary meaning, as one skilled in the relevant field would have understood them.” Ex. 2001 ¶ 21.

Petitioner did not construe “remote verification device” in the Petition initially. Petitioner argues in its Reply, however, that Patent Owner imports limitations found in other claims into claim 1 and, thereby, inappropriately narrows the scope of the claim. Reply 5.

We must not import unrecited elements into the claim from the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319–20 (Fed. Cir. 2005) (en banc). The specification observes its own exemplary nature—“[i]t should be understood that the description and specific examples are intended for purposes of illustration only and are not intended to limit the scope of the present disclosure.” Ex. 1001, 2:16–19.

The specification of the ’658 patent further states:

The remote verification device includes a data input module, a verification module and a display. The data input module includes a keypad and a scanner for acquiring verification data. The verification module which is typically a programmed microprocessor enables the selection of a verification mode, compares the verification data with the inventory data and generates a verification status. The display provides a graphical interface for communicating information from the verification device. The system further includes a local area network for enabling wireless communication between the control desk and the portable verification device. The network includes a wireless network interface controller (WNIC) associated with each of the control desk and the verification device.

Ex. 1001, 1:64–2:10.

The specification also states:

From the foregoing description, one skilled in the art will understand the various aspects of a method and system for conducting inventory verification with one or more remote verification devices. The above description *is merely exemplary in nature and, thus variations that do not depart from the gist of the present disclosure are intended to be within the scope of the present disclosure.* Such variations are not to be regarded as a departure from the spirit and scope of the present disclosure.

Id. at 5:59–67 (emphasis added).

Claim 1 and many of its dependent claims recite the method steps of “downloading” and “uploading,” but not specifically “wirelessly downloading” or “wirelessly uploading.” The portion of the specification cited to us by Patent Owner mentions that the example overall “system” embodiment includes a wireless network interface controller that is not necessarily within the remote or portable verification device. *Id.* at 2:5–7. Additionally, the patent drafter in this instance has demonstrated an ability to recite specific elements in later claims—see, e.g., claim 15 which recites a “display apparatus” and “local area network” with “wireless controller[s].” *Id.* at 7:11–8:10.

As a consequence, we disagree with Patent Owner and are not persuaded by the testimony of Dr. Jagannathan that the term “remote verification device” in the claim, without more, must also contain a wireless network interface. It appears to us that the witness has imported limitations into the claim language from the written description. This significantly, and adversely, affects the persuasiveness of his overall testimony. “The written description part of the specification does not delimit the right to exclude. That is the function and purpose of claims.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

We also do not agree with Patent Owner and are not persuaded by the witness’ testimony that the data input module can only be a keyboard and scanner. See PO Resp. 23. While the specification includes that as an exemplary embodiment, we are provided with insufficient persuasive evidence in the record that the patentee intended specifically to define the term so narrowly.

Petitioner points out that Patent Owner took the position in district court litigation that a “remote verification device” should be interpreted as “a remote / portable device for use in inventory verification.” Reply 5 (citing Ex. 1022, 17). We consider the construction proffered by Patent Owner in district court litigation to be a broad but reasonable interpretation, and we are mindful of the historic, but still useful, guidance from the Supreme Court:

Some persons seem to suppose that a claim in a patent is like a nose of wax, which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express. The context may, undoubtedly be resorted to, and often is resorted to, for the purpose of better understanding the meaning of the claim; but not for the purpose of changing it, and making it different from what it is. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.

White v. Dunbar, 119 U.S. 47, 51–52 (1886). Thus, we conclude that “remote verification device” should be construed as “a remote device for use in inventory verification.” Such a construction is the broadest reasonable construction supported by the specification.

2. “*portable verification device*”

Challenged independent claim 15 recites a “portable verification device.” Ex. 1001, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner asserts that “the broadest reasonable construction for ‘portable verification device’ is ‘a computer that includes a data input module, a verification module, a display, and a wireless network interface,’ which is the same construction discussed above for ‘remote

verification device.” PO Resp. 22. We decline to adopt this construction for the same reasons discussed above for “remote verification device,” and adopt a construction similar to that utilized for remote verification device — “a portable device for use in inventory verification.” *See supra* Section II.A.1.

3. “*verification module*”

Challenged independent claim 15 recites a “verification module.” Ex. 1001, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner asserts that the broadest reasonable construction for “verification module” is “a programmed microprocessor enabling the selection of a verification mode, comparison of the verification dataset with the inventory dataset and generation of a verification status.” PO Resp. 22–23.

In support of this interpretation, Patent Owner quotes the ’658 specification, which states: “[t]he remote verification devices 20 include a verification module which is typically a programmed microprocessor enabling the selection of a verification mode, comparison of the verification dataset with the inventory dataset and generation of a verification status.” Ex. 1001, 3:15–19.

This quotation exemplifies the peril of importing limitations from the specification. A term should not be construed to include certain limitations recited in the specification, especially when the specification itself states only that it is “typically” so configured. We, therefore, decline to adopt this construction. The term “verification module” instead is given its plain meaning, as testified to by Mr. Melucci and as illuminated by the specification, *i.e.* “a module configured to verify inventory. Ex. 1006 ¶ 48.

4. *“data input module”*

Challenged independent claim 15 recites a “data input module.” Ex. 1001, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner asserts that the broadest reasonable construction for “data input module” is “a computer component that includes a keypad and a scanner for acquiring verification data.” PO Resp. 23. We decline to adopt this narrow construction, and instead use the plain meaning of the term and discussed in the specification, which is: a module configured to enter data. Ex. 1001 7:22–23.

5. *“unique UPC verification”*

Challenged independent claims 1 and 15 recite a “unique UPC verification.” Ex. 1001, 6:2–14, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner asserts that the broadest reasonable construction for “unique UPC verification” is “querying the user about the accuracy of the unique UPCs in the inventory dataset for an area.” PO Resp. 24. Patent Owner cites the declaration testimony of its witness, who testifies to an exemplary process from the specification. Ex. 2001 ¶ 33.

Patent Owner’s proposed construction imports unrecited limitations (“querying”) into the claim. We, therefore, decline to adopt this construction. Instead, we credit the testimony of Mr. Melucci, and adopt the broader, plain meaning of the terms—comparing the number of unique UPCs in an area to the number of unique UPCs from the inventory data for that area. Ex. 1006 ¶ 47.

6. *“reasonability verification”*

Challenged independent claims 1 and 15 recite “reasonability verification.” Ex. 1001, 6:2–14, 7:12–8:10. We did not construe this term

in the Decision to Institute. Patent Owner asserts that the broadest reasonable construction for “reasonability verification” is “querying the user about the accuracy of the unique total piece count in the inventory dataset for an area.” PO Resp. 26.

Again, Patent Owner’s construction imports unrecited limitations (“querying”) into the claim. We decline to adopt this construction, and instead use the plain meaning of the term. We find that Mr. Melucci has provided a broad, but reasonable, construction in light of the ’658 patent specification—comparing the total quantity of items in an area to the total quantity of items from the inventory data for that area to determine if the inventory data is reasonable. Ex. 1006 ¶ 46. We adopt the construction provided by Petitioner and Mr. Melucci.

7. “*random verification*”

Challenged independent claims 1 and 15 recite “random verification.” Ex. 1001, 6:2–14, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner asserts that the broadest reasonable construction for “random verification” is “querying the user about the accuracy of the quantity in the inventory dataset for an area, of a randomly selected item.” PO Resp. 29.

Again, Patent Owner’s proposed construction imports unrecited limitations (“querying”) into the claim. We decline to adopt this construction, and instead use a definition provided by the testimony from Mr. Melucci concerning the plain meaning of the terms—“comparing the quantity of a randomly selected item in an area to the quantity of that item from the inventory data for that area to determine the accuracy of the inventory data.” See Ex. 1006 ¶ 45.

8. “mode”

Challenged independent claims 1 and 15 recite different types of “mode[s].” Ex. 1001, 6:2–14, 7:12–8:10. We did not construe this term in the Decision to Institute. Patent Owner argues that Petitioner confuses the “unique UPS verification mode” on a verification device with the concept of “unique UPC verification.” PO Resp. 25. We understand there is a difference between a method or “mode” of verification, and a computerized method or “mode” of verification stored and selected on the device. Ex. 1001, 1:31–38, 4:57–58.

During prosecution, in a responsive amendment, Patent Owner proffered that “mode” implied a device:

Amended claim 1 recites “selecting a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes” and “acquiring verification data in the completed area with the remote verification device based on the selected verification mode.” The McGraw-Hill Dictionary of Scientific and Technical Terms, 6th Edition, defines the word “mode” as “one of several alternative conditions or methods of operation of a device.” The portion regarding the “set of rules that define a methodology for verifying the inventory dataset” further clarifies what is meant by verification mode.

Ex. 1002, 180–81.

Claim 1, however, broadly interpreted, can reasonably refer to either “mode”—the verification mode, or the device mode. Moreover, the specification itself, in describing manual processing of prior art printed inventory sheets, also refers to that method of inventory verification as a “mode.” Ex. 1001, 1:31–38 (*see in particular* line 35).

We, therefore, decline to limit the term “mode” to only “on a device” when inventory checking alone can have different “modes” of being

accomplished, e.g., piece count verification, unique UPC verification, reasonability verification and random verification.

For sake of completeness, we also observe that the outcome of this decision remains the same under either the broadest reasonable interpretation standard used in Covered Business Method Reviews, or the claim construction standard under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). The claim construction principles discussed above, as applied to the claim terms at issue here, result in the same construction under either standard.

B. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere*, 383 U.S. 1, 17 (1966). “The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.” *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991).

Mr. Melucci opines that a person of ordinary skill in the art relevant to the '658 patent “would have at least two years [of] experience related to collecting and verifying inventory data.” Ex. 1006 ¶ 27. Dr. Jagannathan testifies that “a person of ordinary skill in the art of the [']658 Patent would have had: (1) a Bachelor’s degree in computer science, computer engineering, or related field; (2) one year of related professional experience; and (3) a basic understanding of inventory processes and the use of UPCs and other product identifiers. The professional experience may include, for example, work related to use of bar codes, stock keeping units, and the like. It is further my opinion that relevant professional or practical experience

with computer systems and software may substitute for academic credentials.” Ex. 2001 ¶ 40.

Based on our review of the ’658 patent, the types of problems and solutions described in the ’658 patent and cited prior art, and the testimony of the parties’ Declarants, we conclude that a person of ordinary skill in the art at the time of the claimed invention would have had at least two years of experience in computerized inventory management. We further note that the applied prior art reflects the appropriate level of skill at the time of the claimed invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Patentable Subject Matter Under 35 U.S.C. § 101

Petitioner asserts that claims 1–19 of the ’658 patent are not directed to patent-eligible subject matter under 35 U.S.C. § 101. Pet. 22–32. In particular, Petitioner takes the position that the challenged claims are directed to an abstract idea, and no other component recited in the claims transforms the patent-ineligible concept to a patent-eligible application. *Id.* Patent Owner disputes Petitioner’s contentions. PO Resp. 33–49. Upon review of Petitioner’s analysis and supporting evidence, as well as Patent Owner’s responsive arguments, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–19 are unpatentable under 35 U.S.C. § 101.

1. Principles of Law

A patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has held that this provision contains an important implicit exception: laws of nature, natural

phenomena, and abstract ideas are not patentable. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). Moreover, “[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293–94 (2012) (internal quotations and citation omitted). Notwithstanding that a law of nature or an abstract idea by itself is not patentable, the practical application of these concepts may be deserving of patent protection. *Id.*

In *Alice*, the Supreme Court reaffirmed the framework set forth previously in *Mayo* “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 132 S. Ct. at 1298, 1297).

In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (brackets in original) (quoting *Mayo*, 132 S. Ct. at 1294). For example, the prohibition against patenting

abstract ideas “cannot be circumvented by attempting to limit the use of the formula to a particular technological environment or adding ‘insignificant post-solution activity.’” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (citing *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)).

2. Claims 1–14, and 18

As the first step of our analysis, we must determine whether the claims at issue are directed to a patent-ineligible concept, such as an abstract idea. *See Alice*, 134 S. Ct. at 2355. Claims 1–14 and 18 are method claims, while claims 15–17 and 19 are apparatus claims, with differing language and limitations.

Petitioner contends that claim 1 is directed to the abstract concept of verifying inventory. Pet. 23. According to Petitioner, the core concept of “[v]erifying inventory by comparing new records to old records is a basic business process” that has been practiced for decades. *Id.* at 23–24. And the prior art states, “inventory in manufacturing, distribution, and retailing is as necessary an evil as money.” Ex. 1008, 7.

Petitioner also asserts that claim 1 can be practiced using pen and paper. Pet. 24. According to Petitioner, a printout of inventory data can be taken to a selected area, and the verifier can decide which verification method to use. *Id.* If count verification is chosen, the verifier can count the inventory mentally or using pen and paper and then compare the count to the count reflected on the printout, noting any discrepancy on the printout. If the verifier chooses reasonability mode, a comparison of the observed inventory in the area can be made with the inventory on a printout to determine reasonability, and the inventory verification status noted. *Id.*

Petitioner further asserts that other methods such as UPC code and random verification can be utilized, and for each method or mode, a reason for any discrepancy observed can be indicated by placing an error code on the printout. *Id.* at 24.

The Supreme Court held that the claims in *Alice* were drawn to the abstract idea of intermediated settlement and that “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2358. *Alice* involved “a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk.” *Id.* at 2356. Like the method of hedging risk in *Bilski*—which the Court deemed “a method of organizing human activity”—*Alice*’s “concept of intermediated settlement” was held to be “a fundamental economic practice long prevalent in our system of commerce.” *Alice*, 134 S. Ct. at 2356 (internal quotations and citation omitted).

Similarly, the Court found that “[t]he use of a third-party intermediary . . . is also a building block of the modern economy.” *Id.* Thus, the Court held that “intermediated settlement . . . is an ‘abstract idea’ beyond the scope of § 101.” *Id.* With respect to the first step of the patent-eligible analysis under the *Mayo* framework, the Court concluded in *Alice* that “there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediate settlement” in *Alice* and that “[b]oth are squarely within the realm of ‘abstract ideas’ as we have used that term.” *Alice*, 132 S. Ct. at 2357.

Patent Owner contests Petitioner’s characterization of the claims and asserts that claims 1–19 recite “features related to selecting a particular

verification mode on the verification device from a plurality of verification modes.” PO Resp. 31. Accordingly, Patent Owner urges that this feature “is not a ‘fundamental economic practice’ and removes the claims from the realm of the asserted abstract idea of simply ‘verifying inventory.’” *Id.* at 32.

Patent Owner, however, conflates features from claims 1 and 15, and imports limitations into the claims from the specification. *See, e.g.*, PO Resp. 35 (discussing the claims jointly). For example, Patent Owner asserts that Petitioner “ignores the actual claim language that requires the verification mode selection to be made *on and with* the device.” PO Resp. 37. The defect in this argument is that the language of “selecting a particular verification mode on the verification device” is absent from claim 1. *See Ex. 1001, 6:2–14.* Furthermore, the broadest reasonable interpretation of the term “mode” does not limit the step to a device. Claim 1 positively recites the device in the downloading, deploying, acquiring, computing, and displaying steps, but the term “device” is specifically omitted from the selecting step. Accordingly, we do not interpret claim 1 as requiring the step of selecting a verification mode *on the device*.

Contrary to Patent Owner’s position, we are persuaded by Petitioner that each of challenged claims 1–14, and 18, as a whole, is directed to the fundamental concept of providing inventory verification. Pet. 23. In the Abstract, the ’658 patent states: “[a] system and method of verifying the completeness and accuracy of inventory records is disclosed.” Ex. 1001, Abst. Additionally, in the Background section, the ’658 patent states:

Prior methods of verification require that the inventory records be printed out in a predetermined format which is then taken to a specific area in the facility for comparison to the

inventory physically located there. These methods are inflexible, tedious and time consuming because the mode of verification is strictly depend[e]nt on the predetermined format of the printed reports and requires a repeated reference to the report and comparison with the actual inventory.

Ex. 1001, 1:31–38.

The only technological features recited in claims 1–14 and 18 are a computer performing conventional computer functions. Ex. 1001, 6:2–22. Specifically, those include downloading data from a computer to a device, deploying the device, acquiring data with the device, computing, and displaying.

We understand that some specialized equipment and configuration may be needed to operate the computer with a scanner or to perform calculations. *See, e.g.*, PO Resp. 45. The '658 patent, however, does not provide such specialized software, programming, or algorithm. Furthermore, Mr. Melucci testifies that knowledge of such programming is within the skill of one of ordinary skill in the art. Ex. 1006 ¶ 27, 128. So, too, does Dr. Jagannathan. Ex. 1021, 70:18–23. We find such testimony persuasive.

The testimony of Mr. Henry explains that the steps and calculations covered by the claims essentially require comparing the difference between the previous inventory and current inventory by using a selected known inventory verification mode, a calculation that can be performed by the human mind, or with the aid of pencil and paper. *See, e.g.*, Ex. 1001, 1:31–34; Ex. 1010 ¶¶ 9, 17, 22; Ex. 1012. We, therefore, are satisfied that the steps are conventional.

We are persuaded by Petitioner’s position that, similar to the concept of intermediated settlement in *Alice* and the concept of risk hedging in *Bilski*, the concept at issue here—validating inventory by known methods against records—is “a fundamental economic practice long prevalent in our system of commerce,” and “squarely within the realm of ‘abstract ideas.’” *Alice*, 134 S. Ct. at 2356–57; *Bilski*, 561 U.S. at 611. The fact that a selection must be made from four standard inventory verification methods does not remove the selection process from being an abstract idea.

For the foregoing reasons, we determine that Petitioner has demonstrated sufficiently that claims 1–14 and 18 are directed to a patent-ineligible abstract idea.

Turning to the second step in the analysis, we look for additional elements that can “transform the nature of the claim” into a patent-eligible application of an abstract idea. That is, we determine whether the claims include an “inventive concept,” i.e., an element or combination of elements sufficient to ensure that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *Alice*, 134 S. Ct. at 2357. The relevant inquiry here is whether “additional substantive limitations . . . narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.” *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (internal quotations and citation omitted). The Supreme Court in *Alice* cautioned that merely limiting the use of an abstract idea “to a particular technological environment” or implementing the abstract idea on a “wholly generic computer” is not sufficient as an additional feature to provide “practical assurance that the process is more than a drafting effort designed

to monopolize the [abstract idea] itself.” *Alice*, 134 S. Ct. at 2358 (internal quotations and citations omitted).

Petitioner alleges that claim 1 recites implementing the abstract idea of selecting among a plurality of verification modes on a “remote device.” Pet. 28. Petitioner urges that no technical description of the remote device is provided, other than that the “remote verification devices include a verification module which is typically a programmed microprocessor.” *Id.* (citing Ex. 1001, 3:15–19). In other words, Petitioner’s position is that the remote device is nothing more than a generic computer programmed to perform the steps of the abstract concept. *Id.*

Patent Owner asserts that both claims 1 and 15 contain the selection of a verification mode from a plurality of verification modes including at least two modes selected from piece count verification, unique UPC verification, reasonability verification, and random verification. PO Resp. 40. According to Patent Owner, the verification mode selection feature for the recited remote/portable verification device is significantly narrower than the broad concept of verifying inventory, and, thus, transforms the nature of the claim into patent-eligible subject matter. *Id.*

As noted above, however, the selection feature is not positively recited in the portable/remote device for claim 1. Accordingly, we find Petitioner’s contentions and supporting evidence persuasive as to claim 1, because the limitations of claim 1 do not add an inventive element to the abstract idea of validating inventory.

With respect to dependent claims 2–14 and 18, those claim features do not recite any improved computer technology or advanced programming technique. Ex. 1001, 6:23–7:11, 8:23–27. Thus, we agree with Petitioner

that these claims describe conventional inventory analysis steps or conventional computational steps. *See* Pet. 29–30.

In view of the foregoing, we determine Petitioner has shown by a preponderance of the evidence that claims 1–14 and 18 are directed to patent-ineligible subject matter under 35 U.S.C. § 101.

3. Claims 15–17 and 19

Our analysis for these claims is the same as above for claims 1–14 and 18, except as noted below.

Apparatus claim 15, and claims 16–17 and 19, which depend therefrom, more positively recite a wireless network and the verification module in the portable device to select a verification mode.

[A] verification module operable to select a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes, to compare the verification data with the inventory data and to generate a verification status, wherein the plurality of verification modes includes at least two of the following verification modes: piece count verification, unique UPC verification, reasonability verification and random verification[.]

Ex. 1001, 7:18–27 (claim 15).

The further question to be answered with regard to these apparatus claims is whether providing wireless connectivity and a selection of a verification mode from a plurality of known types of verification modes loaded on the device adds an inventive concept to the abstract idea of validating inventory.

Dr. Jagannathan testifies that the devices recited in the claims are “special-purpose computer devices that are configured in a specific manner to perform specific (as opposed to generic) computer functions.” PO Resp.

44 (citing Ex. 2001 ¶ 84). The witness’ conclusion is founded in part on the presence in the claims of a scanner for barcode reading, which he asserts is not a component of a generic computer. *Id.* ¶ 86. Dr. Jagannathan also relies upon the description of a programmed microprocessor enabling the selection of a verification mode. *Id.* ¶ 89.

The technological features recited in claim 15, and the claims which depend therefrom, however, are under these specific circumstances best characterized as generic computer system and wireless network elements responsible for performing generic computer system and wireless network functions. Ex. 1001, 7:10–8:31. As the Supreme Court articulated in *Alice*, “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2358. Keyboards and scanners were common, generic computer devices. *See, e.g.*, Ex. 1005 ¶ 23.

As in *Alice*, the function performed by the computer, peripherals, and network at each step of the process in claim 15 is “purely conventional.” *See Alice*, 134 S. Ct. at 2358. The specification of the ’658 patent indicates the “operability” characteristics of the computer and network elements of claim 15 can be performed with technology that was well-known in the art at the time of the invention. *See, e.g.*, Ex. 1001, 3:34–36 (“The remote devices 12, 20, the control desk 14 and the WNICs 30 use a standardized communication protocol, e.g., IEEE 802.11 a/b/g, wireless USB, or Bluetooth.”).

As found above, comparing the difference between the new inventory data and old inventory data is no more than a simple calculation that can be

performed by the human mind, by observation and the employ of reason, with or without the aid of pencil and paper, using conventional methods.

Even when the elements of the claims are considered “as an ordered combination,” as is the case in *Alice*, they “ad[d] nothing . . . that is not already present when the steps are considered separately.” *See Alice*, 134 S. Ct. at 2351 (internal citation omitted). Claim 15, as a whole, like claim 1 discussed above, conveys nothing meaningfully more than the fundamental concept of validating inventory, claimed as functions performed by a generic wirelessly networked computer system including a scanner, keyboard, and display. Merely reciting a generic wirelessly networked computer system does not convert the generic computer to a special purpose computer, when the functions performed by the computer—individually or in combination—are conventional. Nor does providing a selection from a plurality of known, alternative, loaded modes.

We do not find that the claimed subject matter as a whole “improve[s] the functioning of the computer itself,” or “effect[s] an improvement in any other technology or technical field,” as there is no specific recitation in the claims of improved computer technology or advanced programing techniques. *See id.* at 2351. The claims use conventional technology, in a conventional way, to obtain the conventional result of processing data more conveniently. *See, e.g.*, Ex. 1001, 1:31–40. Accordingly, we determine that “each step does no more than require a generic computer to perform generic computer functions,” as in *Alice*. 134 S. Ct. at 2359. The fact that a network, scanner, display, and keyboard are involved does not change our analysis.

Moreover, utilizing a generic wireless networked computer system, as recited in claim 15, to retrieve, send, or display information and to perform conventional inventory calculations faster and more efficiently is not enough to transform a patent-ineligible claim into a patent-eligible invention. *See Bancorp*, 687 F.3d at 1279 (finding a claim not patent-eligible when “the computer simply performs more efficiently what could otherwise be accomplished manually”). Nearly every computer has the capability of performing the basic calculation, storage, and transmission functions. *See Alice*, 134 S. Ct. at 2360. At most, the computer implementation involved in the claims at issue here is an attempt to limit use of the abstract concept to a particular technological environment. That, however, is insufficient to transform a patent-ineligible abstract idea into a patent-eligible invention. *See id.* at 2358; *Mayo*, 132 S. Ct. at 1294; *Bilski*, 561 U.S. at 610–11; *Diamond*, 450 U.S. at 191.

As to claims 16, 17, and 19, those claim features likewise do not recite improved computer technology or advanced programming technique. Thus, we agree with Petitioner that the claims simply describe conventional inventory analysis steps or conventional wireless networking steps. Pet. 30–31 (citing Ex. 1005 ¶ 38).

In view of the foregoing, we determine Petitioner has shown by a preponderance of the evidence that claims 15–17 and 19 are directed to patent-ineligible subject matter under 35 U.S.C. § 101.

D. Obviousness Based on 35 U.S.C. § 103: Whitehouse

Petitioner contends claims 1–19 of the ’658 patent are unpatentable under 35 U.S.C. § 103 as obvious over Whitehouse. Pet. 67–76. Patent Owner disputes Petitioner’s position, arguing that Whitehouse, even in light

of the knowledge of one of ordinary skill in the art, fails to teach or suggest all the elements required by the challenged claims. PO Resp. 53–66. We have reviewed the Petition, the Patent Owner’s Response, and Petitioner’s Reply, as well as the relevant evidence discussed in those papers. For reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–19 of the ’658 patent would have been obvious over Whitehouse in view of the knowledge of one of ordinary skill in the art.

Whitehouse (Ex. 1005) describes a “processor-based inventory data collection system, with an internal integrated scanner, for efficiently collecting and validating inventory data.” Pet. 32 (citing Ex. 1005, Abstract.). Whitehouse describes a hand held computer which can compare the current inventory count with a prior inventory count, and which can perform a reasonableness check on the current inventory count. *Id.* ¶¶ 47–48. Results of an inventory or error messages may be displayed on the hand held unit. *Id.* ¶¶ 25, 35. Whitehouse also describes a hand-held computer which may send and receive inventory data wirelessly to a central computer. *Id.* ¶¶ 37–40, 54.

Whitehouse describes an operator can “use one hand to scan and count merchandise.” Pet. 33 (citing Ex. 1005, Abstract). Whitehouse also describes using the hand-held data collection device (Ex. 1005 ¶ 9), in communication with a central computer (*id.* ¶ 40), to collect, validate, and audit inventory data. *Id.* ¶ 54. Inventory validation occurs in a retail establishment or a warehouse as an audit or routine check of the inventory. *Id.* ¶ 22.

Petitioner relies on the ordinary knowledge of those in the business of storing goods. Pet. 2. More specifically, Mr. Henry testifies that businesses that store physical goods need accurate inventory counts, and that at least commencing in the 1950s, contractor inventory services have assisted businesses in performing such counts. Ex. 1010 ¶ 9.

Mr. Henry further testifies that in the 1990s and 2000s a typical inventory count of a retail store would proceed as follows: (i) a team of contractors would divide the store into discrete areas for counting, and each area would be given a physical tag; (ii) one contractor would be assigned to an area and would count every item in that area; (iii) after completing a section, the contractor would write summary information on the tag, such as the number of unique items and the total number of items in the area; (iv) an auditor would review the tag to see if the numbers seemed reasonable based on observation of the area; and (v) based on the customer's instructions, and the auditor's judgment, some sections would be selected for recount. *Id.* ¶¶ 12–15. According to Mr. Henry, the counts included the totals and numbers of unique shop keeper's units (SKUs). *Id.* ¶ 22a.

Mr. Henry further testifies that for recounted sections, some or all of the items would be recounted, and the recount would be compared to the original count to identify and correct any discrepancies. *Id.* ¶ 15. According to Mr. Henry, the count data also would be consolidated on the team manager's central computer, usually a laptop. Summary reports of this count data would be generated showing the original counts, any recounts, and other information, such as reasons for discrepancies. *Id.* ¶ 16. Mr. Henry also testifies that if the customer had prior inventory data, a variance report could be generated comparing the inventory count to the customer's

prior inventory data. *Id.* ¶¶ 15–16. In the absence of any contrary persuasive testimony, we find this testimony logical and credible.

1. *Claim 1*

Petitioner asserts that claim 1 would have been obvious in view of the disclosure in Whitehouse and the prior use and knowledge of one of ordinary skill in the field of inventory accounting. Pet. 68. We utilize Petitioner’s nomenclature for the claim elements for consistency.

a. Preamble: “*method for inventory verification*”

Petitioner asserts that Whitehouse describes methods of inventory verification. Pet. 36 (citing Ex. 1005, Abstract, ¶ 1). The evidence of record (e.g., Ex. 1005, Abstract, ¶¶ 1–2) supports this position.

b. 1[a] “*downloading an inventory dataset having downloaded inventory data for a completed area from a control desk to a remote verification device*”

The background section of Whitehouse describes that retail stores keep “inventory information stored in a computerized system.” Ex. 1005 ¶ 4. Petitioner contends that this is equivalent to the claimed “control desk” described as having “a dataset with inventory data.” Pet. 37 (citing Ex. 1001, 1:62–63).

Whitehouse describes inventory validation by counting the inventory against the computer inventory information. Whitehouse utilizes a hand held device to collect inventory data as part of inventory audit or verification. Ex. 1005 ¶ 22. That device can communicate with other systems and master files can be transferred to it. *Id.* ¶¶ 37–38.

- c. 1[b] *“selecting a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes, wherein the plurality of verification modes include at least two of the following verification modes: piece count verification, unique UPC verification, reasonability verification and random verification”*

Petitioner argues that Whitehouse describes a rules-based verification having a plurality of modes including piece count and reasonability. Pet. 40–42. More specifically, we observe that Whitehouse describes a processor for executing inventory data computational program code stored in a memory. Ex. 1005 ¶¶ 27–29. The data of Whitehouse “is used to track and audit the entered information.” Ex. 1005 ¶ 31. We find that one of ordinary skill in the art would understand the program code for carrying out computations to audit the entered information disclosed in Whitehouse is a set of rules that define a methodology for verifying the inventory dataset. See Pet. 40; see also Ex. 1005 ¶ 29 (“The program code includes the code for validation logic and other code for carrying out computations during the inventory data collection process.”).

Petitioner contends that Whitehouse describes multiple modes. Pet. 40–41. Whitehouse’s inventory data collection system allows an operator to take a physical count of the merchandise as part of an audit or physical merchandise count. Ex. 1005 ¶ 22. We find that the physical inventory count is equivalent to piece count verification. See Pet. 19 (citing Ex. 1001, 4:57–67).

Petitioner also contends that Whitehouse describes that the quantity field can be used as a reasonableness check against the quantity observed. Pet. 41; Ex. 1005 ¶ 48.

We reproduce the pertinent paragraphs of Whitehouse below:

[0047] If the captured data has been successfully validated against a set of restrictive parameters, the process moves to step 328. In step 328, the captured data is validated against a master file. In one embodiment, the captured data is validated against an inventory item master file, which usually contains a list of valid SKU numbers. The master file may contain information that can be used to validate other data such as price or quantity on hand. The master file may also be used to provide information to generate inventory reports. A master file may contain many thousands of records. An example record in a master file is shown below:

UPC-CODE	ITEM- DESCRIPTION	SKU	PRICE	QUANTITY
071142012349	BOTTLED WATER 24 OZ SPORTS PACK	546871	00754	00079.

[0048] In the above example, the UPC field provides the Universal Product Code, which is commonly used to uniquely identify an item. The description field can include the generic name of the item. In addition, the description field can also provide item identification feedback to the operator, or can be used to generate a report. The SKU field includes the stock keeping unit number that can be used as an alternative item identifier. The price field can be used to prompt the operator for additional information on certain price points. The quantity field can be used as a reasonableness check against the quantity observed. Other information such as department, class, or section can also be included in the master file.

Ex. 1005 ¶¶ 47 and 48.

Patent Owner urges that the prior art fails to teach or suggest selecting a verification mode from a plurality of verification modes with a remote or portable verification device. PO Resp. 54. Specifically, Patent Owner argues Whitehouse does not describe a plurality of modes. PO Resp. 54.

According to Patent Owner, the Whitehouse “reasonableness check” has no description as to how such a check would occur in practice, and the check falls squarely within the Petitioner’s definition for piece count verification, and as such cannot be a second verification mode. *Id.* at 56–57.

Given the teachings of Whitehouse, we are persuaded by Petitioner’s position and unpersuaded by Patent Owner’s argument for several reasons. First, a reasonableness check of an inventory number is a known method of inventory verification. Ex. 1006 ¶ 52. Second, we accept Petitioner’s definition of reasonability verification as “comparing the total quantity of items in an area to the total quantity of items from the inventory data for that area to determine if the inventory data is reasonable.” *Id.* ¶ 46. We also are unpersuaded by Patent Owner’s witness’ interpretation that the process requires querying, not comparing, as that interpretation imports limitations into the claims. Ex. 2001 ¶ 36. Finally, we observe that Whitehouse appears to describe validating the quantity on hand for a specific SKU, which is another verification method. *Id.* ¶ 47.

Accordingly, we find that Whitehouse describes a plurality of verification modes, including reasonability verification. Pet. 20 (citing Ex. 1001, 5:8–20).

Patent Owner urges that it would not have been obvious to implement selection of verification modes. PO Resp. 61 (citing Ex. 2001 ¶¶ 129–41). According to Patent Owner’s Declarant, Dr. Jagannathan, “implementing the particular collection of verification modes and providing the ability to select among them as claimed in the [’]658 Patent claims is neither implicitly disclosed, nor rendered obvious over Whitehouse.” Ex. 2001 ¶ 129.

As support for this assertion, *inter alia*, Dr. Jagannathan testifies that Whitehouse “is quite vague as to the details of the program code” and “no details are provided as to the specific validation logic and other code.” Ex. 2001 ¶ 130. Dr. Jagannathan further opines: “[s]ince there is not sufficient explanation of the ‘sophisticated validation logic,’ I do not believe one of ordinary skill would have grasp of this ‘sophisticated validation logic’ without undue experimentation.” *Id.* ¶ 131.

We do not credit the testimony of Patent Owner’s witness for the following reasons. First, we presume the artisan to have a certain minimum level of skill. *See In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985). It appears to us that the witness is downplaying the ability of one of ordinary skill in the art. Second, the evidence of record, including the known art and present patent specification, generally omits specific code, providing background evidence logically leading to the conclusion that one of skill is capable of writing appropriate code.

We do agree with Patent Owner that the testimony of Mr. Henry concerning a plurality of modes naturally leading to a selection is unsupported by a specific reference. PO Resp. 60–61. Therefore, we give less weight to Mr. Henry’s testimony, but on balance we find it logical and credible and we find it outweighs the testimony of Dr. Jagannathan.

Patent Owner also criticizes the testimony of Mr. Henry relating to selecting a mode from multiple verification modes as “absurd.” PO Resp. 62–63. We think that Patent Owner misunderstands the testimony based upon its own narrow construction of the term “mode.” We reproduce below an excerpt from the deposition of Mr. Henry:

Q Is there anything in Exhibit 1012 showing or describing a device that would allow a user to select a particular verification mode from multiple verification modes presented?

A From the portions I've read, no. But selecting these different ways in the verification that we discussed, is a common practice. You go to make an assessment, lines, quantities, dollars, etc., etc.

Q But, to be clear, there's no description in Exhibit 1012 of a device that would allow a user to select a particular verification mode from multiple verification modes; is that correct?

A I don't see reference to that exactly. It was so common that I'm not sure it required reference. But I don't see it referenced here.

Ex. 2003, 59:23–60:13.

In the selected deposition testimony from Mr. Henry, it appears the witness was stating that the various modes of inventory verification were known (in the non-device sense). We do not find this position to be absurd or unsupported.

Patent Owner next urges that Petitioner has failed to submit any corroborating evidence to substantiate Petitioner's challenge based on the prior use and knowledge of inventory methods. PO Resp. 65. Relying on the *Manual of Patent Examining Procedure* ("MPEP"), Patent Owner seems to imply that an examination standard for official notice applies in this proceeding. *Id.* The MPEP official notice standard in an *ex parte* proceeding is not the burden of a petitioner in trial proceedings at the PTAB.

Petitioner has put forth credible testimonial evidence in support of its position that the inventory methods were known and used by those of skill in the art. *See* Exs. 1011, 1012, 1013; *see generally* Ex. 1010 .

Patent Owner asserts that Mr. Melucci is not one of ordinary skill in the art and testimony based in part on “his experience” renders it unsuitable. PO Resp. 67 (citing Ex. 2004, 118:22–119:18; 2001 ¶ 110). We do not agree that Mr. Melucci’s extensive experience renders him unable to testify as to the level of ordinary skill in the art, or as to what his experience reveals regarding that level.

d. 1[c] *“deploying the remote verification device to the completed area”*

Petitioner argues that Whitehouse describes deploying the hand-held inventory data collection system in a store or warehouse, or to a particular area within the store or warehouse. Pet. 46 (citing Ex. 1005, Fig. 8, reference numeral 700). We find that Whitehouse describes a remote verification device, deployable to count merchandise efficiently. Ex. 1005 ¶ 22.

e. 1[d] *“acquiring verification data in the completed area with the remote verification device based on the selected verification mode”*

Petitioner argues that Whitehouse describes an inventory data collection system which includes an input device that may be a keyboard or a bar code scanner. Pet. 47 (citing Ex. 1005 ¶ 23).

Whitehouse further describes that the inventory data collection system “allows an operator to efficiently take a physical count of the merchandise,” and that this inventory data may be collected “as part of an audit of the inventory, or as part of a routine verification of the physical inventory.” Ex. 1005 ¶ 22. The collected inventory data may include, for example, a SKU number, an item quantity, a price or an item description. *Id.* ¶¶ 42, 47–48.

Accordingly, we find that Whitehouse describes this element.

- f. 1[e] “*computing a verification status on the remote verification device based on a comparison of the verification data with the downloaded inventory data*”

Petitioner argues that Whitehouse describes that the program code executing on the inventory data collection system includes “code for carrying out computations during the inventory data collection process.” Pet. 48 (citing Ex. 1005 ¶ 29).

Whitehouse describes that inventory data collected using the data collection system can be compared to a prior count of inventory, because Whitehouse specifically states:

The system can scan any common bar code symbology. Scanned entries can be restricted to specific bar code symbologies for different fields. For example, the system can restrict a section tag to 3 of 9 bar code symbols, an item scan to a Universal Product Code (UPC) or interleaved 2 of 5 bar code, and shelf label tags to Code 128 bar codes. A section tag is an identifying tag indicating what section of a store, stockroom, or warehouse the merchandise is located in, and can have a bar code or other identifying value. The section tag can be used to locate the counted merchandise, *compare the count with a previous count for that section, or compare the count with a current summary value from an automated inventory system*. A shelf label tag is a retailer installed tag typically placed on the store shelf under the merchandise. It can include a bar code or a SKU number. The shelf label tag often has a price and a description of the item.

Ex. 1005 ¶ 44 (emphasis added).

Accordingly, we find that Whitehouse describes this element.

- g. 1[f] “*displaying the verification status on the remote verification device*”

Petitioner argues that Whitehouse describes that the inventory data collection system has a liquid crystal display incorporated into the data collection system used to display results of an inventory audit or to display error messages, because Whitehouse states:

An output device 120 is coupled to the processor 112. In one embodiment, the output device is a graphical liquid crystal display (LCD), which is incorporated into the data collection system 100, and is used to display results of an inventory audit or to display error messages.

Ex. 1005 ¶ 25; *see* Pet. 49.

Based on this disclosure, we are satisfied that Whitehouse teaches this element.

2. Claim 2

Claim 2 recites “[t]he method for inventory verification of claim 1 wherein the selected verification mode is determined by an average price point determined from the inventory dataset for the completed area.” Ex. 1001, 6:23–26.

Petitioner argues that selecting a verification mode based on an assessment of the value of a particular item of inventory was well known in the prior art. Pet. 71–72. According to Petitioner’s witness, Mr. Henry, businesses would identify high value items for more rigorous auditing, especially in high value departments, such as video games, jewelry, guns, cameras. *Id.* (citing Ex. 1010 ¶ 20; Ex. 1012,³ 15). Petitioner asserts it was

³ The Customer “B” instruction manual.

well known in the prior art to select a verification mode for an area based on the price of the items in that area. Ex. 1010 ¶¶ 20–22.

Patent Owner criticizes Petitioner’s evidence for failing to cite to any prior art reference disclosing this feature. Patent Owner urges that the documents and testimony are not prior art, and the documents fail to teach or suggest determining an average price point or selecting a verification mode based on a determined average price point, as recited by claim 2. PO Resp. 70–71.

Patent Owner is correct that the documents are not prior art. Rather, they are evidence demonstrating the state of the art and support the testimony of the Petitioner’s witness, Mr. Henry, that one of ordinary skill in the art was aware of alternative methods of performing inventory validation and constitute prior use of such methods. Both Mr. Henry and Mr. Melucci testify that the claimed inventory verification methods were known to those of ordinary skill in the art. See Ex. 1010 ¶ 22; Ex. 1006 ¶ 52. We find the testimony of both Mr. Henry and Mr. Melucci credible. Patent Owner has not argued to the contrary persuasively, or pointed to sufficient rebuttal evidence.

3. *Claim 3*

Claim 3 recites “[t]he method for inventory verification of claim 1 further comprising uploading the verification data from the remote verification device to the control desk.” Ex. 1001, 6:27–29.

Petitioner asserts that Whitehouse describes that “[t]he validated data can be consolidated in a personal computer or a central computer. . . . The operator can transfer the validated data or results of an inventory audit over

the Internet or other communication link.” Ex. 1005 ¶ 54. The results of an inventory audit include the verification data recited in claim 3. Ex. 1006 ¶ 80; Pet. 50.

Patent Owner takes the position that Whitehouse fails to teach or suggest acquiring verification data based on the selected verification mode, and accordingly fails to teach or suggest uploading verification data from a remote verification device to a control desk as recited by claim 3. PO Resp. 71.

We are persuaded by Petitioner’s position and find that Whitehouse describes consolidating the data in a central computer.

4. Claim 4

Claim 4 recites “[t]he method for inventory verification of claim 3 further comprising uploading the verification status from the remote verification device to the control desk.” Ex. 1001, 6:30–32.

Petitioner asserts that a person of ordinary skill reviewing Whitehouse would understand the results of an inventory audit (Ex. 1005 ¶ 54) to comprise the verification status recited in claim 4 (i.e., result of a comparison between verification data and inventory data). Ex. 1006 ¶ 81.

Patent Owner generally takes the position that Whitehouse fails to teach or suggest acquiring verification data based on the selected verification mode and computing a verification status based on a comparison of verification data with downloaded inventory data, and therefore fails to teach or suggest uploading a verification status from a remote verification device to a control desk, as recited by claim 4. PO Resp. 71–72.

We are persuaded by Petitioner's position and find that the evidence of record supports a finding that Whitehouse describes uploading and consolidating the inventory audit results in a central computer.

5. Claim 5

Claim 5 recites "[t]he method for inventory verification of claim 1 further comprising assigning an error code to the downloaded inventory data when the verification status indicates a difference between the verification data and the inventory data." Ex. 1001, 6:33–36.

Petitioner asserts that claim 5 would have been obvious to one of ordinary skill in the art based on Whitehouse in view of the use and knowledge of inventory methods of one of ordinary skill in the art. Pet. 72. Petitioner's witness, Mr. Henry, testifies that inventory audits included assigning reasons, or "error codes," to explain discrepancies between the initial count and the recount, and between the final count and a store's previous inventory records. Ex. 1010 ¶ 22.

Mr. Melucci testifies that a person of ordinary skill would have been motivated to implement the error codes on the hand-held device disclosed in Whitehouse at least because Whitehouse is directed toward improving the efficiency of inventory audits; implementing known methods on a hand-held computer is a known, predictable way to more efficiently audit inventory. Ex. 1006 ¶ 128.

Patent Owner challenges Petitioner's position by asserting the Declarations of Messrs. Henry and Melucci are not prior art, and do not teach or suggest assigning an error code to downloaded inventory data according to claim 5. PO Resp. 72.

We are persuaded by Petitioner’s position and the testimony of Petitioner’s witness that error codes were known and that one of ordinary skill in the art would have been motivated to use them on a hand held device to improve efficiency. In the absence of any persuasive rebuttal evidence, we find the testimony of Messrs. Henry and Melucci to be logical and credible.

6. *Claim 6*

Claim 6 recites “[t]he method for inventory verification of claim 1 further comprising initiating an inventory correction procedure when the verification status indicates a difference between the verification data and the inventory data.” Ex. 1001, 6:37–40.

Petitioner asserts that claim 6 would have been obvious based on Whitehouse in view of the use and knowledge of inventory methods of one of ordinary skill in the art. Pet. 73. According to the testimony of Petitioner’s witnesses, Mr. Henry and Mr. Melucci, during an inventory count, any discrepancies between an original and re-count would be noted. Potentially, a third count would be performed to determine which count was correct. Ex. 1006 ¶ 83; Ex. 1010 ¶ 22.

Mr. Melucci further opines that it would have been within a person of ordinary skill’s ability to implement an error correction procedure to resolve a discrepancy rather than allow the count to remain inaccurate. Ex. 1006 ¶ 83.

Patent Owner challenges Petitioner’s conclusion, stating that Petitioner has not shown prior art references disclosing the feature. PO Resp. 72–73. Patent Owner, however, has not rebutted the testimony of Mr. Henry that one of ordinary skill in the art would have known how to perform

the inventory correction procedure. We credit the testimony of Mr. Henry as logical and credible.

7. Claim 7

Claim 7 recites

[t]he method for inventory verification of claim 6 wherein the inventory correction procedure comprises:

switching the remote verification device from a verification mode to an inventory mode;

acquiring replacement inventory data for the completed area;

substituting the replacement inventory data for the downloaded inventory data; and

switching the remote verification device from the inventory mode to the verification mode.

Ex. 1001, 6:41–50.

Petitioner asserts that claim 7 would have been obvious based on Whitehouse alone and in view of the knowledge of inventory methods of one of ordinary skill in the art. Pet. 52 (citing Ex. 1005 ¶ 22; Ex. 1006 ¶ 81), 74. According to Petitioner, during a typical known inventory count, if an auditor determined that the amount reflected on a tag was not reasonable, or if a tag had been selected for recount, that section would be recounted. In other words, the verification process would switch to acquiring inventory data. *Id.* Once the replacement inventory data was acquired, it would again be verified against the previous count. *Id.* Petitioner relies on the Declaration of Mr. Melucci to support its position. Mr. Melucci testifies that “[o]ne of ordinary skill in the art would understand that Whitehouse discloses switching between acquiring and auditing inventory data because the fact of the different functionalities encompasses the ability to switch between them.” Ex. 1006 ¶ 84; *see* ¶ 130. Petitioner, thus, concludes that it

would have been obvious to implement this known method on the device disclosed in Whitehouse as part of “maintain[ing] accurate inventory information.” Pet. 52 (citing Ex. 1006 ¶ 84), 74 (citing Ex. 1006 ¶ 130).

Patent Owner objects that Petitioner does not cite to any prior art reference disclosing this feature, but instead cites to the declaration of Petitioner’s employee. PO Resp. 73. According to Patent Owner a declaration is not prior art and fails to teach or suggest an inventory correction procedure that comprises switching the remote verification device from a verification mode to an inventory mode, acquiring replacement inventory data for the completed area, substituting the replacement inventory data for the downloaded inventory data, and switching the remote verification device from the inventory mode to the verification mode, as recited by claim 7. *Id.*

We find that Petitioner has presented sufficient credible evidence that inventory procedures would lead one of ordinary skill in the art towards the correction of inaccurate inventory. Ex. 1006 ¶ 83. Patent Owner has not countered with sufficient credible evidence.

8. Claim 8

Claim 8 recites “[t]he method for inventory verification of claim 7 further comprising uploading the replacement inventory data from the remote verification device to the control desk.” Ex. 1001, 6:51–53.

Petitioner asserts that Whitehouse discloses that “[t]he validated data can be consolidated in a personal computer or a central computer The operator can transfer the validated data or results of an inventory audit over the internet or other communication link.” Pet. 53 (citing Ex. 1005 ¶ 54). According to Mr. Melucci, a person of ordinary skill in the art reading

Whitehouse would understand that Whitehouse does not limit the types of data that can be uploaded from the hand-held device to a personal computer or a central computer. Ex. 1006 ¶ 85. Mr. Melucci concludes that it would have been obvious to a person of skill in the art to upload replacement inventory data from the hand-held device to a personal computer as they are normally used to collect data from hand-held data collection devices. *Id.*

Patent Owner contends that Whitehouse fails to teach or suggest uploading replacement inventory data from a remote verification device to a control desk, as recited by claim 8, and the Declaration of Mr. Melucci fails to cure the deficiencies of Whitehouse.

We find that Whitehouse describes the consolidation of data to a central computer, which meets the limitation recited in claim 8. Ex. 1005 ¶ 54.

9. *Claim 9*

Claim 9 recites “[t]he method for inventory verification of claim 7 further comprising comparing the verification data with the replacement inventory data and computing a verification status based on the comparison.” Ex. 1001, 6:54–57.

Petitioner asserts that claim 9 requires repeating limitation 1[e], except the comparison is between the replacement inventory data and the verification data, rather than between the verification data and the inventory data. Pet. 53. Relying on Mr. Melucci’s testimony, Petitioner concludes that it would have been obvious to a person of ordinary skill in the art to compute a new verification status after acquiring replacement inventory data because one of the purposes of Whitehouse is to “compare the count [for a section] with a previous count for that section, or compare the count with a

current summary value from an automated inventory system.” Ex. 1006 ¶ 86; *see* Ex. 1005 ¶ 44. In summation, Petitioner’s position appears to be that if new inventory data is obtained, then it would be obvious to perform another comparison. Pet. 54 (citing Ex. 1006 ¶ 86).

Patent Owner states that Mr. Whitehouse’s and Mr. Melucci’s testimony fail to teach or suggest comparing verification data with replacement inventory data and computing a verification status based on the comparison, as recited by claim 9. PO Resp. 74.

We find that Petitioner has presented sufficient credible evidence that inventory procedures would lead one of ordinary skill in the art towards repeating validation when new data is presented. Patent Owner has not countered with sufficient credible evidence.

10. Claim 10

Claim 10 recites “[t]he method for inventory verification of claim 9 further comprising uploading the verification status to the control desk.” Ex. 1001, 6:58–60.

Petitioner asserts that Whitehouse discloses that “[t]he validated data can be consolidated in a personal computer or a central computer The operator can transfer the validated data or results of an inventory audit over the internet or other communication link.” Ex. 1005 ¶ 54, *see* Pet. 75. Mr. Melucci testifies that a person of ordinary skill reviewing Whitehouse would have understood the results of an inventory audit (Ex. 1005 ¶ 54) to comprise the verification status recited in claim 9 (i.e., result of a comparison between the verification data and the replacement inventory data). Ex. 1006 ¶ 87.

Patent Owner urges that neither Whitehouse nor Mr. Melucci's testimony teaches or suggests uploading the verification status to the control desk, as recited by claim 10. PO Resp. 75.

We find that Petitioner has presented sufficient credible evidence that it would have been obvious to one of ordinary skill in the art to transfer validated data or inventory results to a so-called central computer. Ex. 1005 ¶ 54. Patent Owner has not countered with sufficient credible evidence.

11. Claim 11

Claim 11 recites “[t]he method for inventory verification of claim 1 further comprising displaying the verification status on the remote verification device.” Ex. 1001, 6:61–63.

Petitioner observes that this claim does not further limit claim 1. Pet. 67. We agree that it repeats an already existing limitation from claim 1.

12. Claim 12

Claim 12 recites “[t]he method for inventory verification of claim 1 further comprising displaying a first inventory count from the downloaded inventory data and a second inventory count from the verification data on the remote verification device.” Ex. 1001, 6:64–67.

Petitioner argues that Whitehouse discloses that data collection system 100 has an integrated LCD display “used to display results of an inventory audit or to display error messages.” Pet. 54–55 (citing Ex. 1005 ¶ 25). Mr. Melucci testifies that one of ordinary skill in the art would have recognized that the disclosure of “display[ing] results of an inventory audit or . . . display[ing] error messages” encompasses displaying a first inventory count from the downloaded inventory data and a second inventory count from the

verification data because displaying this information is a form of displaying the results of an inventory audit. Ex. 1006 ¶ 89.

Patent Owner asserts that neither Whitehouse nor Mr. Melucci's testimony teaches or suggests displaying a first inventory count from the downloaded inventory data and a second inventory count from the verification data on the remote verification device, as recited by claim 12. PO Resp. 75–76.

We find that Petitioner has presented sufficient credible evidence that inventory procedures would lead one of ordinary skill in the art towards displaying both sets of data in order to show inventory audit results. Ex. 1005 ¶ 25. Patent Owner has not countered with sufficient credible evidence.

13. Claim 13

Claim 13 recites “[t]he method for inventory verification of claim 1 further comprising displaying a UPC count from the downloaded inventory data and a second UPC count from the verification data on the remote verification device.” Ex. 1001, 7:1–4.

Petitioner urges that claim 13 is the same as claim 12 except that a UPC count is being displayed instead of an inventory count. Pet. 56. Petitioner asserts that Whitehouse discloses that SKUs can be used as a form of inventory data. *Id.* (citing Ex. 1005 ¶¶ 47–48). Petitioner then concludes that it would have been obvious to a person of ordinary skill in the art to use a UPC as an item's SKU.

Patent Owner counters that neither Whitehouse nor the Declaration of Mr. Melucci teaches or suggests displaying a UPC count from the

downloaded inventory data and a second UPC count from the verification data on the remote verification device, as recited by claim 13.

We find that Petitioner has presented sufficient credible evidence that one of ordinary skill in the art would have found it obvious to use a UPC as the SKU. Ex. 1005 ¶¶ 47–48. Patent Owner has not countered with sufficient credible evidence.

14. Claim 14

Claim 14 recites “[t]he method for inventory verification of claim 1 further comprising: inputting a UPC for an item located within the completed area; querying the downloaded inventory data to determine if the UPC is resident in the inventory dataset; and displaying a status based on the query.” Ex. 1001, 7:5–11.

Petitioner asserts that Whitehouse discloses displaying an error message if the inputted SKU is not in the master file. Pet. 56–57 (citing Ex. 1005 ¶ 50). Petitioner relies on the Declaration of Mr. Melucci, who testifies that it would have been obvious to a person of ordinary skill in the art to use a UPC as an item’s SKU and therefore to modify Whitehouse to search the master file by UPC instead of SKU, as it would entail the simple substitution of one known identifier for another to obtain predictable results. Ex. 1006 ¶ 93.

Patent Owner states that Whitehouse and the Declaration of Mr. Melucci fail to teach or suggest inputting a UPC for an item located within the completed area, querying the downloaded inventory data to determine if the UPC is resident in the inventory dataset, and displaying a status based on the query, as recited by claim 14.

We find that Petitioner has presented sufficient credible evidence that one of ordinary skill in the art would have found it obvious to substitute a search for UPC as opposed to SKU. Ex. 1005 ¶ 50. Patent Owner has not countered with sufficient credible evidence.

15. Claim 18

Claim 18 recites “[t]he method for inventory verification of claim 1 wherein the plurality of verification modes comprises piece count verification, unique UPC verification, reasonability verification and random verification.” Ex. 1001, 23–26.

Petitioner observes that claim 18 only recites a limitation from the independent claim from which it depends. Accordingly, Petitioner contends that this claim is unpatentable for the reasons discussed above. Pet. 67.

Patent Owner asserts that claim 18 is patentable for the same reasons claim 1 is patentable. PO Resp. 78.

16. Claim 15

Claim 15 differs from claim 1 in that it recites a system and apparatus for inventory verification rather than a method. We utilize Petitioner’s element-by-element breakdown for consistency.

a. Preamble — “[a]n inventory verification system.”

Petitioner asserts that Whitehouse teaches a “system and method for collecting and validating inventory data.” Pet. 57, 75 (citing Ex. 1005, Abstract, ¶ 1).

b. [a] — “a control desk including a dataset having inventory data.”

Petitioner asserts that Whitehouse discloses limitation 15[a]. Pet. 58, 75. According to Petitioner, Whitehouse describes that the hand-held device

has communication facilities to permit it to communicate with external devices such as personal computers, storage systems, or memory devices. *Id.* (citing Ex. 1005 ¶¶ 37, 38). Specifically Petitioner alleges that Whitehouse also describes an “inventory item master file” containing “information that can be used to validate other data such as price or quantity on hand” (Ex. 1005 ¶ 47), which can be transferred to a hand-held device from external sources. Pet. 58 (citing Ex. 1005 ¶ 37).

Petitioner further alleges that Whitehouse discloses that inventory data resides on a personal computer or storage system (i.e., a control desk). Ex. 1006 ¶ 96. Petitioner also asserts that it was well known in the art to use a control desk with prior inventory data when conducting an inventory count. Pet. 75 (citing the testimony of Mr. Henry (Ex. 1010 ¶ 16) and the Customer “B” manual (Ex. 1012)).

Petitioner, thus, concludes that it would have been obvious to one of ordinary skill to combine the system of Whitehouse with a control desk, because Whitehouse specifically instructs that the system communicates with “other external devices such as . . . personal computers” (Ex. 1005 ¶ 37), and that “validated data can be consolidated in a personal computer or a central computer” (*id.* ¶ 54). Pet. 75.

c. 15[b] — “*a portable verification device.*”

Petitioner argues that Whitehouse describes a portable verification device. Whitehouse discloses a “hand-held inventory data collector in accordance with one embodiment of the invention.” Pet. 59 (citing Ex. 1005, Fig. 8, ¶ 56).

d. 15[c] — *“a data input module having a keypad operable to enter data and a scanner operable to read and decode a barcode symbology for acquiring verification data.”*

Petitioner argues that Whitehouse describes a data input module which is a “data collection system [that] includes an input device coupled to a processor. The input device may be an internal keyboard or an integrated scanner.” Pet. 60 (citing Ex. 1005 ¶ 23). “The scanner 220 scans inventory data in the form of bar codes, which are then decoded into serial data and relayed to the central processor.” *Id.* ¶ 33.

e. 15[d] — *“a verification module operable to select a verification mode, which includes a set of rules that define a methodology for verifying the inventory dataset, from a plurality of verification modes, to compare the verification data with the inventory data and to generate a verification status, wherein the plurality of verification modes includes at least two of the following verification modes: piece count verification, unique UPC verification, reasonability verification and random verification”*

Petitioner asserts that Whitehouse describes limitation 15[d]. More specifically, Petitioner asserts that Whitehouse describes processor 204 for executing program code stored in memory 212 wherein the program code includes, among other things, “code for carrying out computations during the inventory data collection process.” Pet. 60–61 (citing Ex. 1005 ¶¶ 27–29). Petitioner asserts that Whitehouse further discloses that “[t]he stored data is used to track and audit the entered information.” Pet. 61 (citing Ex. 1005 ¶ 31).

Petitioner relies on the Declaration of Mr. Melucci to support its position. Mr. Melucci testifies that one of ordinary skill in the art at the time

the invention was made would have understood the program code for carrying out computations to audit the entered information disclosed in Whitehouse was “a verification module . . . which includes a set of rules that define a methodology for verifying the inventory dataset.” Ex. 1006 ¶ 102.

As noted above, Patent Owner asserts that Whitehouse does not describe multiple verification modes. *See* PO Resp. 55. Patent Owner’s reasoning is that the reasonableness check is within the definition of piece count verification. PO Resp. 57. Patent Owner also construes the verification modes as requiring the element of “querying.” As discussed above, we disagree with Patent Owner’s interpretation of the claim language and the cited art, and have found that Whitehouse describes a plurality of verification modes. *See supra* Section II.D.1.c.

Claim 15 requires selection of a mode from modes *on the portable device*, which makes it different in scope from claim 1. Key to Petitioner’s position is Petitioner’s argument that “[o]ne of ordinary skill in the art would understand that Whitehouse discloses ‘operable to select . . . from a plurality of verification modes’ because the fact that Whitehouse provides multiple verification modes encompasses the ability to select between them.” Pet. 61 (citing Ex. 1006 ¶ 104).

Petitioner also contends that the claimed limitation of “operable to select” among the at least two verification modes disclosed in Whitehouse (i.e., piece count verification and reasonability verification) would have been obvious to a person of skill in the art. *Id.* at 62. Petitioner’s witness, Mr. Melucci, testifies that implementing a “selection” capability in a software program was a well-known programming technique prior to the filing date of the ’658 patent. Ex. 1006 ¶ 105. According to Mr. Melucci, implementing

such a selection in the program code running on the processor of the hand-held device disclosed in Whitehouse would have yielded the predictable result of allowing a user to select from among different available verification modes. *Id.*

Patent Owner criticizes Mr. Melucci's testimony as being without citation to a prior art document or other supporting authority. PO Resp. 61. Patent Owner also criticizes the testimony of Mr. Henry as "absurd." PO Resp. 63. As noted above, we disagree with this characterization of the Henry testimony and find him credible. *See supra* Section II.D.1.c.15[e] — "a display apparatus operable to display information including the verification status."

f. 15[e]—"*a display apparatus operable to display information including the verification status.*"

Petitioner asserts that Whitehouse describes that "[t]he data collection system includes a display coupled to the processor. The display is used to present information such as a confirmation of the collected data or the results of an inventory audit." Pet. 64 (citing Ex. 1005 ¶ 35). We are also persuaded by the testimony of Petitioner's witness, Mr. Melucci, that the results of an inventory audit constitute a verification status. *See* Ex. 1006 ¶¶ 110.

g. 15[f] — "*a local area network for enabling wireless communication between the control desk and the portable verification device, the local area network including: a first wireless network interface controller (WNIC) operable to transmit data signals from the control desk and receive data signals to the control desk; and a second wireless network interface controller (WNIC) operable to transmit data signals from the verification device and receive data signals to the verification device; wherein the first WNIC transmits data*

signals with the inventory data that are received to the second WNIC and wherein the first WNIC receives data signals with verification data that are transmitted from the second WNIC.”

Mr. Melucci testifies that limitation 15[f] requires wireless communication cards to transfer (1) inventory data from the control computer to the remote device and (2) verification data from the remote device to the control computer. Ex. 1006 ¶ 112. Petitioner contends that the specification of the '658 patent does not define any particular wireless network interface card (“WNIC”) and only discloses the use of standard pre-existing wireless communications methods (“The remote devices 12, 20, the control desk 14, and the WNICs 30 use a standardized communication protocol, e.g., IEEE 802.11 a/b/g, wireless USB, or Bluetooth.”). Ex. 1001, 3:34–37.

Petitioner concludes that the control desk contemplated by Whitehouse would have had a first WNIC on the central computer, while the remote device has a second WNIC, as it contains an SD card interface “[which] can be used to attach wireless communication devices . . . wide-area network (WAN) interfaces, or local area network (LAN) interface devices.” Ex. 1005 ¶ 38.

Because Whitehouse also discloses transferring previous inventory data to the remote device via a master file (*Id.* ¶ 47), Petitioner’s witness, Mr. Melucci, testifies that it would have been obvious to a person of ordinary skill that the master file could be transferred to the remote device using the disclosed wireless communications. Ex. 1006 ¶ 114.

Finally, Mr. Melucci testifies that as Whitehouse discloses that the “results of an inventory audit” can be consolidated in a “central computer,” it describes using wireless communications to transfer a master file (inventory data) from the control computer to the remote device and verification data (result of an audit) from the remote device to the control computer, as recited in limitation 15[d]. Ex. 1006 ¶ 114.

Patent Owner asserts that Petitioner has provided no evidence to establish that one of ordinary skill in the art, at the time of the invention, would have been motivated to modify the prior use and knowledge methods to utilize a verification device with functionality for selecting a particular verification method from a plurality of verification methods. PO Resp. 64. Dr. Jagannathan, therefore, urges that the combination and modification as testified to by Mr. Melucci are an attempt at hindsight reconstruction of the claims of the ’658 patent. Ex. 2001 ¶ 140.

Patent Owner criticizes the use of customer documents as not being prior art, failing to meet the standards of official notice, and an inaccurate consideration of the level of ordinary skill in the art. PO Resp. 65. We observe that the customer inventory procedure documents, Exhibits 1011, 1012, and 1013, are used to support Mr. Henry’s testimony. Petitioner does not appear to seek our taking of official notice of these documents.

We have considered Patent Owner’s arguments in the context of claim 15, and find them unpersuasive principally for the reasons noted above in regards to claim 1. We also observe that Patent Owner has not put forth sufficient credible evidence to counter the merits of Petitioner’s position. Rather, we are persuaded by Petitioner’s position as supported by the testimony of Mr. Melucci.

17. Claim 16

Claim 16 recites “[t]he inventory verification system of claim 15 further comprising an access point in communication with the first WNIC and the second WNIC.” Ex. 1001, 8:11–13.

Petitioner asserts that Whitehouse describes the remote device contains an SD card interface “which can be used to attach wireless communication devices . . . wide-area network (WAN) interfaces, or local area network (LAN) interface devices.” Pet. 66 (citing Ex. 1005 ¶ 38). Petitioner’s witness, Mr. Melucci, testifies that it was well known in the art that wireless communications devices, wide-area networks, or local area networks include connections through access points. Ex. 1006 ¶ 115 (citing Ex. 1017).

Patent Owner argues that “Whitehouse and Exhibit 1017 fail to teach or suggest, however, an access point in communication with the first WNIC and the second WNIC, as recited by claim 16 and the declaration of Mr. Melucci fails to cure the deficiencies of Whitehouse.” PO Resp. 77.

We are persuaded by Petitioner’s position. The conclusory statement provided by Patent Owner is insufficient to persuade us otherwise.

18. Claim 17

Claim 17 recites

[t]he inventory verification system of claim 15 further comprising:

a portable acquisition device including a data input module having a keypad operable to enter data and a scanner operable to read and decode a barcode symbology for acquiring inventory data; and

a third wireless network interface controller (WNIC) operable to transmit data signals from the acquisition device and receive data signals to the acquisition device.

Ex. 1001, 8:14–22.

Petitioner asserts that a “portable acquisition device” of claim 17 is another remote device used to collect inventory data, and that Whitehouse discloses that “[i]n one embodiment, the central computer can receive inventory data from a plurality of hand-held, data collection computers (i.e., hand-held machines).” Pet. 67 (citing Ex. 1005 ¶ 54). Mr. Melucci concludes that as Whitehouse discloses using multiple hand-held devices in the inventory collection and auditing process, it also describes the portable acquisition device of claim 17. Ex. 1006 ¶ 116.

Patent Owner urges that Whitehouse fails to teach or suggest a portable acquisition device including a data input module having a keypad operable to enter data and a scanner operable to read and decode a barcode symbology for acquiring inventory data, and a third wireless network interface controller (WNIC) operable to transmit data signals from the acquisition device and receive data signals to the acquisition device, as recited by claim 17.

We find that Petitioner has presented sufficient credible evidence that one of ordinary skill in the art would consider the plurality of portable devices and description of wireless communication in Whitehouse to meet these limitations of claim 17. Patent Owner has not countered with sufficient credible evidence.

19. Claim 19

Claim 19 recites “[t]he inventory verification system of claim 15 wherein the plurality of verification modes comprises piece count verification, unique UPC verification, reasonability verification and random verification.” Ex. 1001, 8:27–30.

Petitioner observes that claim 19 only recites a limitation from the independent claim from which it depends. Accordingly, Petitioner contends that this claim is unpatentable for the reasons above. Pet. 67.

Patent Owner asserts that claim 19 is patentable for the same reasons it asserts claim 15 is patentable. PO Resp. 78–79.

20. Secondary Considerations

Factual inquiries for an obviousness determination include secondary considerations based on evaluation and crediting of objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17. Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of nonobviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *See Graham*, 383 U.S. at 17; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007).

Here, Patent Owner argues that “long-felt but unresolved need” as well the “failure of others” indicates that the challenged claims would not have been obvious to a person of ordinary skill in the art. PO Resp. 70. Specifically, Patent Owner argues that evidence of secondary considerations “weigh in favor of finding the ’658 patent not obvious,” because the use of bar codes and scanners preceded the ’658 patent by decades, and thus, there must have been a long-felt need met by the claimed invention of the ’658 patent.

Patent Owner supports its position with the Declaration of Dr. Jagannathan. Dr. Jagannathan testifies that “the previous use of pen and paper and substantially manual processes in an age where mobile devices, computer networking, and bar code technology was well known for several years shows that there was a hurdle that had not been overcome.” PO Resp. 69 (citing Ex. 2001 ¶ 139).

An argument based upon long-felt need must be accompanied by evidence that demonstrates the existence of a problem which was of concern in the industry and had remained unsolved over a long period of time. See *Vandenberg v. Dairy Equip. Co.*, 740 F.2d 1560, 1567 (Fed. Cir. 1984); see also *In re Allen*, 324 F.2d 993, 997 (CCPA 1963) (while appellant’s arguments imply that there may be been an unsolved problem in the art, an allegation to this effect is not evidence of unobviousness unless it is shown, as was not done here, that [1] the widespread efforts of [2] skilled workers [3] having knowledge of the prior art [4] had failed to find a solution to the problem (citing *Toledo Pressed Steel Co. v. Standard Parts, Inc.*, 307 U.S. 350, 356 (1939)). Patent Owner has not provided persuasive evidence of this need.

We have considered carefully the patentability of claims 1–19 in view of Patent Owner’s arguments regarding secondary considerations, but find that such arguments, in light of the evidence of record, lead us to the conclusion that the subject matter of these claims has been shown to have been obvious by a preponderance of the evidence of record in this proceeding.

III. MOTION TO EXCLUDE

Petitioner filed a motion to exclude the testimony of Dr. Jagannathan's testimony. Paper 29. Petitioner argues that Dr. Jagannathan's testimony demonstrates that he is not qualified as an expert and that his opinions are based on insufficient facts and data. *Id.* at 1. Petitioner asserts that Dr. Jagannathan's testimony, thus, must be excluded under the Federal Rules of Evidence ("FRE"), Rule 702. *Id.* at 4.

FRE 702 provides, in pertinent part that:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Petitioner observes that Dr. Jagannathan's experience is limited to his litigation consulting work, none of which involves inventory verification systems. *Id.* at 5. Petitioner also criticizes Dr. Jagannathan's educational background, in that while he holds a Ph.D. in computer science, Dr. Jagannathan has not shown any educational qualifications related to inventory verification, other than some coursework towards an MBA. *Id.* at 6–7.

Petitioner then argues that Dr. Jagannathan's testimony lacks an appropriate basis. *Id.* at 7. Specifically, Petitioner argues that Dr. Jagannathan's experiences in inventory management consist of observing clerks with scanners while shopping, and discussing the process with Mr.

Ripley, an employee of Patent Owner, for about an hour and a half. *Id.* at 9–10 (citing Ex. 1021, 7:6–8:11).

To testify as an expert under FRE 702, a person need not be a person of ordinary skill in the art, but rather must be “qualified in the pertinent art.” *Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008); see *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1372–73 (Fed. Cir. 2010) (upholding a district court’s ruling to allow an expert to provide testimony at trial because the expert “had sufficient relevant technical expertise” and the expert’s “knowledge, skill, experience, training [and] education . . . [wa]s likely to assist the trier of fact to understand the evidence”); *Mytee Prods., Inc. v. Harris Research, Inc.*, 439 F. App’x 882, 886–87 (Fed. Cir. 2011) (non-precedential) (upholding admission of the testimony of an expert who “had experience relevant to the field of the invention,” despite admission that he was not a person of ordinary skill in the art).

We find that, although Dr. Jagannathan is less experienced than Petitioner’s witnesses in the area of inventory management, he is qualified sufficiently to testify as an expert witness about inventory management systems. We have considered his testimony, although we have found it to be unpersuasive in many instances.

Moreover, we do not find Mr. Jagannathan’s discussions with Mr. Ripley to be a basis for exclusion, because witnesses regularly and necessarily must acquire background information from other witnesses in forming their opinions. We, therefore, decline to exclude the testimony of Dr. Jagannathan. Rather, we have given it appropriate weight where it is in conflict with the testimony of other witnesses. See, e.g., *Yorkey v. Diab*, 601

F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another “unless no reasonable trier of fact could have done so”); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations.”); *Velander v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) (“In giving more weight to prior publications than to subsequent conclusory statements by experts, the Board acted well within [its] discretion.”). The Board is capable of determining and assigning the appropriate weight to the evidence.

Accordingly, Petitioner’s Motion to Exclude the Testimony of Dr. Jagannathan is DENIED.

IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner has established by a preponderance of the evidence that claims 1–19 of the ’658 patent are unpatentable under 35 U.S.C. §§ 101 and 103(a).

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–19 of the ’658 patent have been shown to be unpatentable.

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.

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FOR PETITIONER:

David R. Marsh
Ali R. Sharifahmadian
ARNOLD & PORTER LLP
david.marsh@aporter.com
ali.sharifahmadian@aporter.com

FOR PATENT OWNER:

George D. Moustakas
Michael P. Doerr
HARNES, DICKEY & PIERCE, PLC
gdmoustakas@hdp.com
mdoerr@hdp.com