

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KINAXIS INC. and KINAXIS CORP.,
Petitioner,

v.

BLUE YONDER GROUP, INC.,
Patent Owner.

IPR2021-01205
Patent 7,050,874 B1

Before NATHAN A. ENGELS, PAUL J. KORNICZKY, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Petitioner, Kinaxis Inc. and Kinaxis Corp., requests that we institute an *inter partes* review to challenge the patentability of claims 1–11 (the “challenged claims”) of U.S. Patent 7,050,874 B1 (Ex. 1001, “the ’874 patent”). Paper 2 (“Pet.”). Patent Owner, Blue Yonder Group, Inc., argues that Petitioner’s request is deficient and should not be granted. Paper 9 (“Preliminary Response” or “Prelim. Resp.”). With our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 13, “Reply”) and Patent Owner filed a Sur-reply (Paper 14, “Sur-reply”).

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we deny the Petition and do not institute an *inter partes* review.¹

B. *Related Matters*

The parties identify the following related district court litigation: *Blue Yonder Group Inc. v. Kinaxis Inc.*, No. 3:20-cv-03636-K (N.D. Tex.). Pet. 69; Paper 7, 1.

C. *The ’874 Patent*

The ’874 patent is entitled “Sourcing of Bills of Materials.” Ex. 1001, code (54). The ’874 patent explains that a bill of materials (“BOM”) “is a document or other data file that often includes a list of parts (or components) and sub-parts that are included in one or more products.” *Id.* at 2:36–38. Bills of materials, according to the patent, “may be used to identify every

¹ Our findings and conclusions at this stage are preliminary, and thus, no final determinations are made.

part needed to make a product and the quantity of each part that is needed.” *Id.* at 2:47–49. “BOMs are created by a BOM originator (such as an original equipment manufacturer) and then communicated in whole or in part to one or more suppliers (for example, as part of a request for quote).” *Id.* at 1:11–18.

The ’874 patent describes that “suppliers take the part number or other associated information from the BOM and use these part numbers to identify the parts needed and to determining pricing and other relevant information (such as available supply) for these parts.” *Id.* at 3:5–9. Then, the “OEM or other originator of the BOM then receives the pricing and other relevant information from the suppliers and determines how to fill the parts requirements (in other words, how to ‘source’ the BOM).” *Id.* at 3:9–12. The system of the ’874 patent “allow[s] BOMs to be sourced . . . without having to communicate the BOMs to suppliers.” *Id.* at 3:22–34. “To allow such cost and pricing determinations to be made, sourcing engine 12 may have access to one or more sources [of] supplier data (such as pricing and available quantity information),” which “may include internal supplier data 20 stored in one or more data storage locations associated with system 10 and/or external supplier data 22 stored in one or more data storage locations external to system 10.” *Id.* at 3:64–4:4.

The system of the ’874 patent receives a bill of material, extracts part numbers or other identifiers, queries internal and/or external data sources to determine pricing and availability, and selects a supplier for each part based on that information. *Id.* at 4:18–34. Figure 1 of the ’874 patent shows an example block diagram of system 10 and is reproduced below.

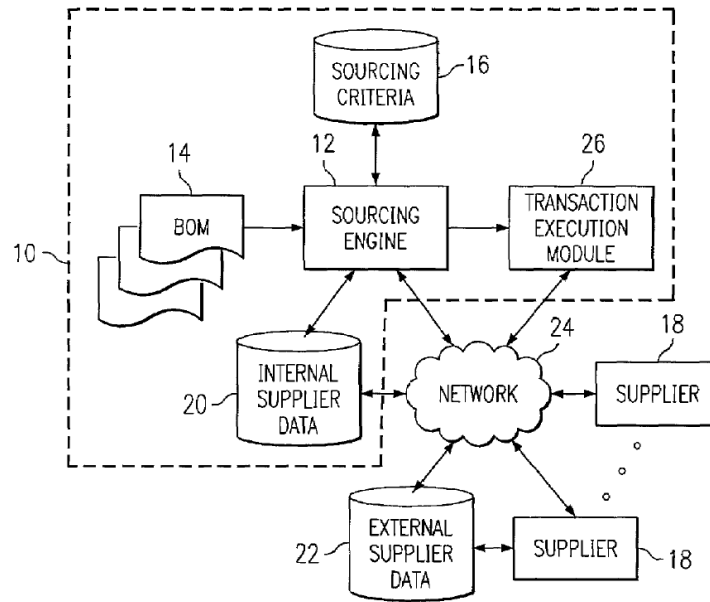


Figure 1 shows system 10, sourcing engine 12, BOM 14, sourcing criteria storage 16, supplier data storage 20 and 22, and transaction execution module 26. *Id.* at 3:22–4:37.

D. Illustrative Claim

Petitioner challenges claims 1–11 of the '874 patent. Of the challenged claims, claim 1 is the sole independent and is illustrative:

1. A bill of materials (BOM) sourcing system, comprising:
 - one or more data storage locations operable to store BOM sourcing criteria;
 - a sourcing engine operable to:
 - receive a BOM including a plurality of part identifiers;
 - identify one or more part identifiers included in the BOM;
 - search supplier data associated with one or more suppliers of parts to obtain pricing information associated with the identified parts;
 - receive the sourcing criteria from the one or more data storage locations; and
 - determine which supplier should be used to supply each identified part based on the pricing information and the sourcing criteria; and

a transaction execution module operable to:
 receive from the sourcing engine a part identifier for each identified part and the identity of the supplier to be used to supply each identified part;
 generate one or more transaction documents each identifying one or more parts and including a request that a supplier provide the one or more parts; and
 communicate the one or more transaction documents to the associated suppliers.

Ex. 1001, 5:26–49.

II. ANALYSIS

A. *Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability (Pet. 1), supported by the declaration of Dr. Robert Handfield (Ex. 1003):

Claim(s) Challenged	35 U.S.C. § ²	Reference(s)/Basis
1–11	102(a), 103	Szekely ³
1–11	103(a)	Szekely, Khan, ⁴ Spiller ⁵

B. *Legal Standards*

Petitioner bears the burden to demonstrate unpatentability. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). At this preliminary stage, we determine whether the information presented in the Petition shows a reasonable likelihood that Petitioner would

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. §§ 102, 103 effective March 16, 2013. We refer to the pre-AIA version of §§ 102 and 103.

³ Szekely, et al., Controlling Supplier Selection in an Automated Purchasing System, Association for the Advancement of Artificial Intelligence, Technical Report WS-99-01, 101 (1999) (“Szekely”) (Ex. 1004).

⁴ U.S. Patent Pub. 2002/0032611 A1, pub. Mar. 14, 2002 (“Khan”) (Ex. 1007).

⁵ WIPO Patent Pub. WO 01/08034 A2, pub. Feb. 1, 2001 (“Spiller”) (Ex. 1008).

prevail in establishing that at least one of the challenged claims would have been unpatentable. *See* 35 U.S.C. § 314(a).

“A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). Moreover, “[b]ecause the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements ‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). A reference inherently discloses an element of a claim “if that missing characteristic is necessarily present, or inherent, in the single anticipating reference.” *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citing *Cont’l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)). Whether a reference anticipates is assessed from the perspective of an ordinarily skilled artisan. *See Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003).

A claim is unpatentable as obvious under 35 U.S.C. § 103(a) if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). We resolve the question of obviousness based on underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the prior art and the claims; (3) the level of skill in the art; and (4) when in evidence,

objective indicia of obviousness or nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We apply these principles to the Petition’s challenges.

C. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art (“POSA”) “would have had a formal collegiate education in an academic area emphasizing operations or supply chain management, and at least five years of experience.” Pet. 7 (citing Ex. 1003 ¶¶ 23–24).

Patent Owner responds that “Patent Owner will apply the Petition’s characterization.” Prelim. Resp. 9. Thus, Patent Owner does not contest Petitioner’s assertion of the level of skill of a POSA.

At the same time, Patent Owner also argues that “Petitioners’ [POSA] lacks any computer science training or coding ability.” *Id.* As the level of skill impacts our analysis herein, we address Patent Owner’s argument below.

We first note that the Petition does not define the level of “formal collegiate education.” The Petition does not require a specific degree such as an associates, bachelor’s, master’s, or doctorate degree, or an academic certificate. Thus, academic work towards any of these types of degrees or certificates appears to be within the level of skill defined by the Petition, as long as they include an emphasis in operations or supply chain management.

Patent Owner argues that a POSA as set forth by Petitioner does not have any computer science or coding ability. Prelim. Resp. 9, 53–54. In support, Patent Owner relies on the Declaration of Douglas J. Thomas, Ph.D. (Ex. 2013). *See e.g.*, Prelim Resp. 53–54 (citing Ex. 2013 ¶¶ 24–25). Patent Owner argues that, for example, “[t]oday, a degree in supply chain management from North Carolina State University . . . does not require

computer science or coding courses” and that “[s]upply chain management curriculums in 2001, the year the ‘874 Patent was filed, would have similarly lacked computer science and coding courses.” *Id.* at 54 (citing Ex. 2013 ¶¶ 24–25). Dr. Thomas further states that “it is my opinion that a [POSA] would have known how to use a computer to do statistical analysis; however, [a POSA] would have lacked computer science knowledge and/or computer programming ability.” Ex. 2013 ¶ 25.

Patent Owner also argues that the POSA’s lack of computer science training and coding ability is supported by the Szekely reference which is relied on in the grounds of unpatentability by Petitioner. Prelim. Resp. 54–55. Patent Owner argues that “Petitioners’ [POSA]—a degree in supply chain management and no coding background—is likely very similar to the background of the users of the Dealmaker system.” *Id.* (citing Ex. 1004, 102 “Contract managers and buyers are not expected to have training as a programmer”). Patent Owner argues that “these users were such novices at computer programing, that the authors of Szekely were tasked by the government to create a better system not requiring coding ability.” *Id.* at 55.

Szekely teaches that:

Contract managers and buyers are not expected to have training as a programmer. We have verified that this user population has difficulty with complex logical expressions, such as nested “ors” and “nots”. Such conditions are common on production rules, so the design must assure the users’ ability to manage rules in this system. Contract managers and buyers should not have to understand elements of the system out of their control such as the hundreds of rules on other contracts.

Ex. 1004, 102; *see also id.* at 107 (“End users are not familiar with programming concepts.”).

As it is uncontested, we adopt Petitioner’s definition of the level of ordinary skill for the purposes of this Decision. Based on the current record, including the testimony of Dr. Thomas (e.g., Ex. 2013 ¶¶ 24–25), the underlying evidence (e.g., Exs. 2014–2018) his testimony relies on, and the teachings of Szekely (Ex. 1004), we further determine that a POSA as defined by the Petition does not have computer science knowledge or computer programming ability.

D. Claim Construction

In *inter partes* review, we construe claims using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2021).

The Petition states that no terms require express construction at this stage. Pet. 7. Patent Owner agrees that no claim construction is required. Prelim. Resp. 9.

We agree that no claim term needs to be construed at this stage. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms that are in controversy, and only to the extent necessary to resolve the controversy.” (internal quotation omitted)).

E. Prior Art

Before addressing each of the specific grounds of unpatentability, we review the asserted prior art, as well as some of the supplemental documents relied on in the Petition. We also discuss Patent Owner’s arguments 1) that the Petition fails to establish that Szekely was publically-available prior art

and 2) that the Petition relies on supplemental documents that are not established to be prior art. Prelim. Resp. 20–26, 28–29.

1. Szekely

Szekely describes “a system called DEALMAKER that allows users to specify policies that control selection among preferred suppliers in an automated purchasing system,” where the “DEALMAKER sourcing module is designed to enable non-programmers to specify business policies that control automated supplier selection for off-the-shelf parts (those identifiable with part numbers). Ex. 1004, 101.

DEALMAKER was developed with the U.S. Defense Logistics Agency (“DLA”) in mind, to help the agency supply its customers with goods they need. *Id.* “[C]ustomers of DLA submit requisitions for goods in electronic form. DLA arranges for the goods to be delivered from one of DLA’s depots or directly from a commercial supplier. DLA bills its customers and pays the suppliers.” *Id.* In DEALMAKER, “[s]ome of the contract may be entered as rules because of the infeasibility of anticipating all of the complexity of the domain and representing it in conventional database tables,” where the rules “represent critical obligations and policies that must be implemented before the contract can be used for purchases.” *Id.*

From a customer’s purchase requisition, the DEALMAKER sourcing module gets the part number, desired delivery date, priority code, customer, ship-to address, and other information, selects a supplier, and provides all the data needed for an EDI Purchase Order and billing. *Id.* at 102. Using the part number from the requisition as an index, DEALMAKER queries its contracts database and the suppliers’ online catalogs, and constructs a proposal object representing each contract that supplies the item. *Id.*

a) *Public Availability of Szekely*

The Petition states that

Szekely is a peer-reviewed white paper entitled: CONTROLLING SUPPLIER SELECTION IN AN AUTOMATED PURCHASING SYSTEM. The Szekely white paper was presented on July 18, 1999 as part of the American Association for Artificial Intelligence's (AAAI) Artificial Intelligence for Electronic Commerce Workshop at the 16th National Conference on Artificial Intelligence. (KINAXIS-1022; KINAXIS-1023.) Szekely was published later that year (1999) by The AAAI Press (Menlo Park, California) in Technical Report WS-99-01. (KINAXIS-1021; KINAXIS-1023, 2.)

Pet. 2 (citing Exs. 1021–1023).

Most relevant to our discussion, the Petition argues that Szekely was publicly available prior to the filing date of the '874 patent as evidenced by “[c]ataloging dates extracted from library MARC records.” *Id.* at 2–3 (citing Ex. 1028 ¶ 11). The Petition relies on the Declaration of Jacob Robert Munford (Ex. 1028) to support this conclusion. Mr. Munford states that library catalog records

are typically written in Machine Readable Catalog (. . . “MARC”) code and contain information such as a physical description of the material, metadata from the material's publisher, and date of library acquisition. The MARC record has been the standard format for computerized library records since the early 1970s.

Ex. 1028 ¶ 4. Mr. Munford further testifies that the

008 field of the MARC record is reserved for denoting the date of creation of the library record itself. As this typically occurs during the process of preparing materials for public access, it is my experience that an item's MARC record indicates the approximate date of an item's public availability. In other words, an interested member of the public would have been able to access a reference at the library soon after its MARC record was created.

Id.

Mr. Munford testifies that he has reviewed the MARC records from three libraries for *Artificial Intelligence for Electronic Commerce: Papers from the AAAI Workshop, Technical Report WS-99-01*, which is the particular Technical Report which includes Szekely. *Id.* ¶¶ 7–10 (*see also id.* at App’x C SCU01, NCU01, UMBC01 (copies of the records)). These records are from the Central Connecticut State University library, the North Carolina State University library, and the University of Maryland, Baltimore County library. *Id.* ¶¶ 8–10.

Mr. Munford testifies that field 008 of these MARC records show that these three libraries acquired this publication as of April 7, 2000 and that the Technical Report “was made available to the public shortly after April 2000.” *Id.* ¶ 11.

Patent Owner counters with the Declaration of Ingrid Hsieh-Yee, PH.D. (Ex. 2008), to argue that “Mr. Munford’s conclusions are wrong” and “fundamentally flawed.” Prelim. Resp. 23. In particular, Patent Owner argues that MARC field 005 is a better indicator than field 008 and that this field shows that “none of the MARC records support Mr. Munford’s conclusion that the records were definitively available as of April 2000.” *Id.* at 24 (citing Ex. 2008 ¶¶ 24–26).

Ms. Hsieh-Yee appears to agree with Mr. Munford that MARC is the “library cataloging encoding standard.” Ex. 2008 ¶ 6. Ms. Hsieh-Yee testifies that “[l]ibraries create MARC records for works they acquire.” *Id.* ¶ 13. And that most academic libraries process (including creating the MARC record) documents they receive “quickly to make it available for public use” which takes about a week and not “more than a month after the cataloging record is completed.” *Id.*

Based on Ms. Hsieh-Yee's review of the three MARC records in Mr. Munford's testimony, Ms. Hsieh-Yee concludes "that the three MARC records are copy cataloging records based on a record originally created on April 7, 2000, by another cataloging agency, and they do not contain explicit notes on when copy cataloging activities were completed at those libraries." *Id.* at 20. Ms. Hsieh-Yee further testifies that Field 040 indicates that the first or "the original MARC record was created on '000407' (i.e., April 7, 2000)" by the "National Technology Transfer Center in West Virginia" ("NTO") and that the three other institutions copied the NTO's record. *Id.* ¶ 21. However, the MARC records at Fields 008 and 040 "do not contain explicit notes on when their copy cataloging activities were completed." *Id.*

Ms. Hsieh-Yee further testifies that Field 005 "which shows the last time a local library modifies a record" can be used "to estimate when a local copy cataloging record was added to a local system." *Id.* ¶ 24. She states that "the correct way to interpret the date in Field 005 is to say that the copy cataloging record would have been in the local system no later than the date in Field 005." *Id.* Based on this field, Ms. Hsieh-Yee testifies that the MARC record in Appendix CSCU01 of Mr. Munford's Declaration shows that "the copy cataloging record would have been in their system no later than July 6, 2000" and "that this copy cataloging record would have been available at that library between April 7, 2000 and July 6, 2000." *Id.* ¶ 29.

Patent Owner uses Ms. Hsieh-Yee's testimony to argue that "none of the MARC records support Mr. Munford's conclusion that the records were definitively available as of April 2000." Prelim. Resp. 24. However, we determine that the record appears to show that the Technical Report including Szekely would likely have been available at least by sometime in August 2000.

Concerning MARC records generally, Ms. Hsieh-Yee testifies that “[l]ibraries create MARC records for works they acquire” and that “[l]ibrary online catalogs are based on MARC records that represent their collections in order to help the public understand what materials are publicly accessible in those libraries.” Ex. 2008 ¶ 13. This is consistent with the testimony of Mr. Munford that “[i]n preparing a material for public availability, a library catalog record describing that material would be created,” and that the record would be created in MARC code. Ex. 1028 ¶ 4. Mr. Munford further testifies that “an interested member of the public would have been able to access a reference at the library soon after its MARC record was created.” *Id.*

Ms. Hsieh-Yee further testifies that most American academic libraries process works they receive in “about a week” and “[i]f workload is unusually heavy, the processing of a new book may take slightly longer, but should not take more than a month after the cataloging record is completed.” *Id.* ¶ 13. The work is processed “quickly to make it available for public use.” *Id.*

Thus, based on the testimony of Mr. Munford and Ms. Hsieh-Yee, a work would be available at a particular library quickly after the MARC record is completed. Ms. Hsieh-Yee testifies that in normal practice, that equates to between a week and not more than a month after completion of the MARC record.

Based on this testimony, it would appear that the Technical Report including Szekely would likely have been available at least in August 2000 at the Central Connecticut State University library, which is about a month “after the cataloging record [was] completed.” *See* Ex. 2008 ¶ 29; Reply 1–2. Further, based on Ms. Hsieh-Yee’s testimony, the Technical Report would

likely have been available at least in August 2000 at the NTO. This is because the record would have to have been completed before July 6, 2000 in order for the Central Connecticut State University library to have copied that record. *See* Reply 2–3. Thus, August 2000 is at least a month “after the cataloging record [was] completed” at the NTO.

Patent Owner argues that completion of the MARC record is not evidence of when a document is “received and catalogued” or “accessible.” Sur-reply 2. Though Patent Owner is correct that the evidence does not definitely establish the exact date the Technical Report including Szekely was available at either the Central Connecticut State University library or the NTO, the evidence does tend to show that the Technical Report would have been available based on common practices. For our purposes, we determine that this is sufficient to satisfy the reasonable likelihood standard at this stage.

Thus, the record evidence appears to show that Szekely was publicly available at least one year prior to the October 12, 2001 filing date of the ’874 patent. Ex. 1000, code (22).

2. *Khan*

Khan is titled “Methods and Systems for Sourcing Bill of Material and Data Handling Configurations Software.” Ex. 1007, code (54). Khan describes that, in spite of recent automation by manufacturers, “it is still a time consuming and error prone process of going to each site typing a part number or an item code, gathering all the pricing data from multiple distributors site, and then deciding which is the least expensive vendor for a given part.” *Id.* ¶ 23.

Khan discloses “development tools” to create a system that “provides a convenient and easy way to quickly create a complete bill of material

including supplier part numbers pricing, and other relevant engineering and procurement data needed to either order the parts in question or simply keep track of inventory information.” *Id.* ¶¶ 33, 35.

3. *Spiller*

Spiller is titled “System and Method for Processing Documents.” Ex. 1008, code (54). *Spiller* describes “a method for processing documents between trading partners.” *Id.* at 3:8–9.

The method includes receiving an electronic document from a first trading partner into a document processing system having a database that contains database trading information for the trading partners, wherein the document contains transaction specific information. The method further includes validating the transaction specific information with the database trading information and creating an outbound document for sending to the second trading partner using the database trading information contained in the database.

Id. at 3:9–15. Figure 1 of *Spiller*, reproduced below, shows a diagram of its disclosed system.

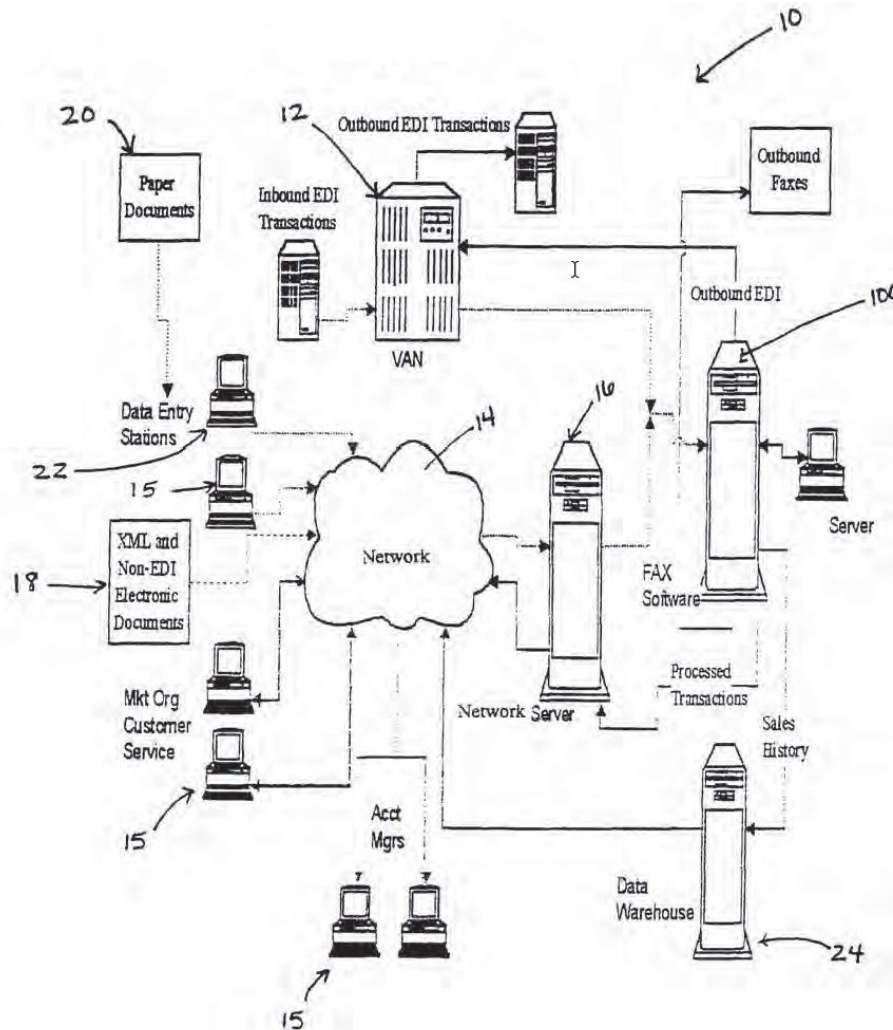


Figure 1 shows Spiller's system, including document processing system 100, value-added network 12 for sending and receiving EDI documents, and data warehouse 24. *Id.* at 7:3–20.

4. *The supplemental DEALMAKER documents*

Patent Owner argues that “Petitioners have not established that either supplemental DEALMAKER reference [(Exs. 1005, 1006)] is a prior art printed publication.” Prelim. Resp. at 28. Thus, Patent Owner argues that these supplemental references should be disregarded. *Id.* at 28–29.

In Petitioner's overview of Szekely, they include the following statement about Exhibits 1005 and 1006:

The authors of Szekely contributed to other documentation and papers related to the DEALMAKER project that corroborate the above functionality. This includes documentation related to the DEALMAKER project on Pedro Szekely's website, which is based on the authors' work from July 1996 to April 1999. (KINAXIS-1005, 1.) Additionally, the authors published "DEALMAKER: An Agent for Selecting Sources of Supply To Fill Orders" in Agents'99 workshop on Agent-based Decision-Support for Managing the Internet-Enabled Supply Chain. (KINAXIS-1006.)

Pet. 10.

Petitioner's list of exhibits describe Exhibits 1005 and 1006 as follows:

KINAXIS-1005 Pedro Szekely et al., *Dealmaker-Final-Documentation*, <https://usc-isi-i2.github.io/papers/szekely99-dealmaker.pdf> (last visited on June 29, 2021).

KINAXIS-1006 Pedro Szekely & Craig Rogers, *DEALMAKER: An Agent for Selecting Sources of Supply To Fill Orders*, in PROCEEDINGS OF THE AGENTS'99 WORKSHOP ON AGENT-BASED DECISION-SUPPORT FOR MANAGING THE INTERNET-ENABLED SUPPLY CHAIN (May 1999)

Id. at iii.

We agree with Patent Owner that neither the documents themselves, nor these statements by Petitioner "establish[] that either supplemental DEALMAKER reference is a prior art printed publication." Prelim. Resp. 28.

Concerning Ex. 1005, Petitioner provides no dates in the above citation that could establish the public availability of this document prior to the October 12, 2001 filing date of the '874 patent. *See* Ex. 1000, code (22).

The only date in the citation establishes the time Petitioner last visited the website, which is almost twenty years after the critical date. Further, Petitioner does not allege that this reference was publicly available.

Petitioner's statement that the document is "based on the authors' work from July 1996 to April 1999" is insufficient to establish that the document itself was publicly available prior to the critical date as required to be prior art under pre-AIA 35 U.S.C. 102(a) or one year earlier as required to be prior art under pre-AIA 35 U.S.C. 102(b).

Concerning Ex. 1006, the citation lists the date of May 1999, however Petitioner does not argue that this is the date that Ex. 1006 was publically available. Further, Petitioner does not allege that this reference was publicly available at all. In fact, the front page of Ex. 1006 includes the statement that "[a]ll content following this page was uploaded by Pedro A. Szekely on 22 December 2013." Further, while the document appears to be a downloaded paper from a website ("ResearchGate" Ex. 1006, 1), the website itself is not listed in the citation. Whether there was an earlier publication, and whether that publication was publicly available is not established on the current record.

We further determine that per Petitioner's allegations, these documents disclose the knowledge of the authors of Szekely related to the DEALMAKER project disclosed in Szekely. *See* Pet. 10. As such, these documents do not reflect the knowledge of a POSA, or what a POSA would understand from reviewing Szekely. *See also* Prelim. Resp. 27 ("the authors of Szekely . . . are computer scientists and researchers interested in advancing AI research (not, for example, advancing research in supply chain planning and management)."); Ex. 2013 ¶ 27 ("[N]one of [Dr. Szekely's] 136 publications appear to be directed to supply chain management.").

Rather, these documents reflect the specialized knowledge of the creators of the DEALMAKER project which has not been shown to be publicly available.

For these reasons, we agree with Patent Owner that these documents (Exs. 1005, 1006) must be disregarded for purposes of this decision.⁶ Prelim. Resp. 29. We further determine that the portions of Dr. Hanfield's Declaration (Ex. 1003) which rely on these references is suspect and should be given little weight for similar reasons. *See e.g.*, Ex. 1003 ¶ 89 (Where Dr. Hanfield relies on Ex. 1005 to "corroborate" his understanding of Szekely).

5. *Other supplemental documents*

The Petition and Dr. Hanfield's Declaration both rely on a large number of supplemental documents⁷ to support their understanding of what the asserted prior art references teach or suggest to a POSA, or as evidence of the knowledge of a POSA. *See e.g.*, Pet. 11–13; Ex. 1003 ¶ 89. Besides Exhibits 1005 and 1006 discussed above, Patent Owner does not contest the public availability of any of these documents. *See generally*, Prelim. Resp.

However, Petitioner lists the publication date for Ex. 1020 as 2002, which is after the filing date of the '874 patent. *See* Pet. iv. For this reason, we determine that Ex. 1020 has not been shown to be publicly available at the time of invention or at any time before that.

⁶ *See e.g.*, Pet. 15–16, 18, 20–22, 29, 34, 36–38, 40, 43–45 (Where the Petition relies on Exs. 1005, 1006 to "corroborate" Petitioner's understanding of the teachings of Szekely).

⁷ The Petition and Dr. Hanfield's Declaration appear to rely on at least the following exhibits in addition to the asserted prior art references: Exs. 1005, 1006, 1009, 1010, 1011, 1013, 1015, 1016, 1017, 1018, 1019, 1020, 1029, and 1030.

F. 35 U.S.C. § 103(a) – Szekely, Khan, Spiller

Petitioner argues that the combination of Szekely, Khan, and Spiller renders obvious claims 1–11. Pet. 48–65. Patent Owner contends Petitioner has not established a motivation to combine the teachings of the prior art references, or a reasonable expectation of success in the combination. Prelim. Resp. 44–60.

1. Claim 1

As outlined in the Petition, the combination of Szekely, Khan, and Spiller is relied on to teach many of the elements of claim 1, including:

1. A bill of materials (BOM) sourcing system, comprising:

...

a sourcing engine operable to:

receive a BOM including a plurality of part identifiers;

... and

a transaction execution module operable to:

receive from the sourcing engine a part identifier for each identified part and the identity of the supplier to be used to supply each identified part;

generate one or more transaction documents each identifying one or more parts and including a request that a supplier provide the one or more parts; and

communicate the one or more transaction documents to the associated suppliers.

Pet. 60–65.

Patent Owner argues that Petitioner has not explained “how a [POSA] without any computer science knowledge or the appropriate programming/coding experience required, would be able to combine the references [Szekely, Khan, and Spiller] in the way the Petitioners propose.” Prelim. Resp. 52.

We agree that Petitioner’s proposed combinations appear to rely on a POSA having computer science and programming knowledge in order to

pursue the proposed modifications. Thus, even though Petitioner cites their Declarant as stating that the combinations are within the skill of a POSA, this statement does not appear to be supported. This is because the combinations require modifications to Szekely's DEALMAKER system requiring computer science and programming knowledge.

For example, concerning the combination of Szekely and Khan, the Petition argues that a POSA "would have considered Khan's disclosure of a sourcing system for BOMs" in view of the "details [that] are left open" in Szekely. Pet. 51. Thus, Petitioner argues, a POSA "motivated to combine Szekely and Khan . . . would have done so by simply modifying Szekely's DEALMAKER sourcing module to receive and source Khan's multi-part BOM. (KINAXIS-1003, ¶191.) These modifications would have been well within a [POSA's] skill. (*Id.*, ¶192.)" Pet. 52.

Petitioner's declarant Dr. Handfield explains that:

A [POSA] motivated to combine Szekely and Khan . . . would have done so by simply modifying Szekely's DEALMAKER sourcing module to receive and source Khan's multi-part BOM. The resulting Szekely-Khan combination would facilitate automated sourcing (as described by Szekely) of a multi-part BOM input (as described in Khan).

Ex. 1003 ¶ 191.

As another example, concerning the combination of Szekely, Khan, and Spiller, the Petition argues that "the Szekely-Khan combination does not provide implementation details for communicating with EDI system or the processing of the EDI system," but Spiller discloses these capabilities. Pet. 55. Thus, Petitioner argues that a POSA would have made the combination "by modifying the EDI system described in Szekely to include functionality for processing, generating, and sending purchase orders as described in

Spiller” and that “[t]hese modifications would have been well within a [POSA’s] skill.” *Id.* at 56 (citing Ex. 1003 ¶¶ 199–200).

Petitioner’s declarant Dr. Handfield explains that these modifications would require, among other things, “modifying the functionality of the EDI system in Szekely to accommodate validation and handling additional transmission formats” and modifying the database “to store additional information for carrying out transactions with vendors.” Ex. 1003 ¶ 200.

From these discussions it can be seen that the combination of Szekely and Khan, and the combination of Szekely, Khan, and Spiller each require computer science and programming knowledge which is not within the level of skill of a POSA. *See also* Prelim. Resp. 46–58. This is consistent with the testimony of Dr. Thomas, which we credit, that these proposed modifications require computer science and programming knowledge and thus are not within the level of skill of a POSA proposed by Petitioner. Ex. 2013 ¶¶ 52–54.

As the Petition has not shown a reasonable likelihood that combining Szekely and Khan, or Szekely, Khan, and Spiller is within the skill level of a POSA, the Petition has not shown a reasonable likelihood that all of the elements of claim 1 are taught by the asserted prior art. Thus, we are not persuaded that Petitioner has shown a reasonable likelihood that claim 1 would have been obvious over Szekely, Khan, and Spiller.

2. *Claims 2–11*

Petitioner argues that the combination of Szekely, Khan, and Spiller renders obvious claims 2–11. Pet. 65. Patent Owner does not present additional argument concerning these claims at this stage. *See* Prelim. Resp. 60. We determine that Petitioner has not shown a reasonable likelihood of

establishing that dependent claims 2–11 are unpatentable over Szekely, Khan, and Spiller for at least the same reasons as independent claim 1.

G. 35 U.S.C. §§ 102(a), 103(a) – Szekely

Petitioner argues that Szekely anticipates and/or renders obvious claims 1–11. Pet. 8–48. Patent Owner argues that the Petition fails to identify how Szekely teaches or suggests all of the limitations of claim 1 for a number of reasons, including reliance on improper supplemental references and the POSA’s lack of computer science training and coding ability. Prelim. Resp. 20–44. For the reasons expressed below, we determine that Petitioner has not established a reasonable likelihood of succeeding in showing that claims 1–11 are unpatentable.

1. Claim 1

Petitioner relies on Szekely for teaching or suggesting the features of independent claim 1, with additional support for its interpretation based on a number of supplemental references and on the Handfield Declaration (Ex. 1003). Pet. 10–34.

Claim 1 refers to a “bill of materials (BOM)” in a number of locations; for example, it requires a “bill of materials (BOM) sourcing system,” systems “to store BOM sourcing criteria” and “a sourcing engine operable to: receive a BOM . . . [and] identify one or more part identifiers included in the BOM.” Ex. 1001, 5:26–32.

The Petition addresses the term “bill of materials (BOM)” for all of these limitations when addressing the preamble to claim 1. Pet. 11–15. Szekely does not discuss BOMs, but the Petition argues that “[t]here are four independent reasons why Szekely’s disclosure of ‘requisitions’ discloses and/or renders obvious a *bill of materials (BOM)*.” *Id.* at 12.

The extent of the first argument is the following:

First, as discussed above, the '874 patent broadly defines a BOM as literally “any . . . compilation of . . . part information.” (*Id.*, ¶70; KINAXIS-1001, 2:50-51.) Given the breadth of the term in the '874 patent, Szekely's requisitions, which include part information, constitute a type of **BOM**. (KINAXIS-1003, ¶¶29, 70.)

Id.

This appears to be attempt to construe BOM broadly, without actually going through a full claim construction analysis. Petitioner previously stated that no claim term needs to be construed, but does not address this inconsistency in their Petition.⁸ *Id.* at 7. Based on these two sentences of argument⁹, we decline to go through a claim construction analysis as Petitioner has not satisfied its burden to show why the term should be construed in a way to give it anything other than its plain and ordinary meaning.

For the second basis, Petitioner argues that “Szekely's disclosure of a requisition would have conveyed the notion of a material planning **BOM** to a [POSA].” *Id.* at 13 (citing Ex. 1003 ¶ 71). Petitioner argues that “[a] material planning BOM is the actual list of component parts and quantities required to produce the finished product” and that a “material planning BOM is often communicated to procurement (whether in whole or in separate requisitions) so that they can perform sourcing and purchasing.” *Id.* (citing Ex. 1003 ¶¶ 37, 71).

⁸ In the related district court litigation, Petitioner seeks to construe some claim terms, but does not seek a construction of the term BOM. *See* Ex. 2003, 15–21. Petitioner does not address why they are taking an inconsistent position here.

⁹ We further note that the Petition fails to address the teachings of the Specification as a whole or even address the identified portion of the sentence in the full context it is presented in the '874 patent Specification.

However, this does not explain why a material planning BOM would be considered a requisition, or why Szekely's disclosure of a requisition would be considered a material planning BOM. Rather, this appears to show that a material planning BOM may be sent to procurement instead of a requisition. This does not show that a POSA would have considered a material planning BOM and a requisition to be the same, or that, more relevant here, Szekely's disclosure of a requisition would be considered a material planning BOM. Notably, Petitioner provides no discussion of how material planning BOMs fit into Szekely's DEALMAKER system, or why in the context of Szekely's DEALMAKER system a requisition would be considered a material planning BOM.

Further, though the Handfield Declaration states that a POSA "understood Szekely's disclosure of requisitions to be a BOM," it also later makes the distinction between Khan's teaching of BOM's and Szekely's requisitions. The Handfield Declaration (Ex. 1003) at ¶ 191 states: "one notable distinction between Szekely and Khan is the input for the sourcing decision. Whereas Szekely receives requisitions, Khan's sourcing system explicitly uses a multi-part BOM as the intake document for specifying the all of the parts requested for procurement." This later statement is consistent with Patent Owner's declarant testimony that requisitions and BOMs would not be considered to be the same. *See* Ex. 2013 ¶¶ 30–33; *see also* Prelim. Resp. 32 n. 5 (Discussing and comparing the Oracle Purchasing Guide and its discussion of requisitions with the Oracle BOM User Guide).

Petitioner's third and fourth reasons also are insufficient. As noted above, we adopt Petitioner's definition of the level of ordinary skill for the purposes of this Decision, but we also determine that a POSA does not have computer science knowledge or computer programming ability. Both of

Petitioner’s third and fourth reasons rely on a level of skill in the art that requires computer science knowledge or computer programming ability in order to modify the Szekely DEALMAKER system. For example, the Petition argues it would have been obvious “to modify Szekely’s DEALMAKER to intake and process material planning BOMs with multiple line items including multiple part numbers” and “to configure the DEALMAKER module to plug into different types of automated purchasing systems.” Pet. 13, 15; *see also* Ex. 1003 ¶¶ 73–78. Consistent with our related discussion of Szekely, Khan, and Spiller, we determine that these modifications require computer science knowledge and computer programming ability. *See e.g.*, Ex. 2013 ¶¶ 52–54.

Thus, these arguments are insufficient for similar reasons discussed previously with respect to the combination of Szekely, Khan, and Spiller as the Petition has not shown a reasonable likelihood that modifying Szekely is within the skill level of a POSA.¹⁰

For all of the above reasons, we determine that the Petition has not shown a reasonable likelihood that all of the elements of claim 1 are taught or suggested by Szekely.

2. *Claims 2–11*

Petitioner argues that Szekely anticipates or renders obvious claims 2–11. Pet. 34–48. Patent Owner does not present additional argument concerning these claims at this stage. *See* Prelim. Resp. 44. We determine

¹⁰ We also note that other arguments by Petitioner surrounding claim 1 also rely on modifying Szekely beyond what is within the skill level of a POSA. These arguments are not supported for the same reasons. *See e.g.*, Pet. 18 (discussing modifying Szekely’s computer code), 22 (discussing modifying the intake of Szekely’s DEALMAKER system).

that Petitioner has not shown a reasonable likelihood of establishing that dependent claims 2–11 are unpatentable over Szekely for at least the same reasons as independent claim 1.

III. CONCLUSION

For the foregoing reasons, we determine that there is not a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition. Accordingly, the Petition is denied, and no trial is instituted.

IV. ORDER

It is hereby:

ORDERED that the Petition is *denied* and that no trial is instituted.

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For PETITIONER:

Joshua A. Griswold
Kenneth W. Darby
Ricardo J. Bonilla
Joseph R. Dorris
Michael A. Vincent
FISH & RICHARDSON P.C.
griswold@fr.com
kdarby@fr.com
rbonilla@fr.com
dorris@fr.com
vincent@fr.com

FOR PATENT OWNER:

George Fishback
McKOOL SMITH PC
gfishback@mckoolsmith.com

Steven Laureanti
Kevin S. Tuttle
SPENCER FANE LLP
slaureanti@spencerfane.com
ktuttle@spencerfane.com