

Paper No. _____
Filed: September 27, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IBG LLC, INTERACTIVE BROKERS LLC,
TRADESTATION GROUP, INC., and TRADESTATION
SECURITIES, INC.,

Petitioners,

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.,

Patent Owner.

Case CBM2016-00051
Patent No. 7,904,374

PATENT OWNER'S NOTICE OF APPEAL

via PTAB E2E
Patent Trial and Appeal Board

via Hand Delivery
Director of the United States Patent and Trademark Office
c/o Office of the General Counsel, 10B20
Madison Building East
600 Dulany Street
Alexandria, VA 22314

via CM/ECF
United States Court of Appeals for the Federal Circuit

Pursuant to 35 U.S.C. §§ 141 and 142, and 37 C.F.R. §§ 90.2 and 90.3, Patent Owner, Trading Technologies International, Inc. (TT), hereby provides notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision (Paper 44) entered on August 7, 2017, and from all underlying orders, decisions, rulings, institutions, and opinions regarding U.S. Patent No. 7,904,374 (“the ’374 patent”) at issue in Covered Business Method No. CBM2016-00051.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), the issues on appeal include, but may not be limited to:

(1) the Board’s determination that it had jurisdiction to issue the Final Written Decision based on its view that the ’374 patent is a covered business method patent under § 18 of the American Invents Act;

(2) the Board’s determination that claims 1-36 are ineligible under 35 U.S.C. § 101;

(3) the Board’s denial of TT’s motion to exclude;

(4) the Board’s claim constructions, failure to construe terms, and/or determination of the level of ordinary skill in the art at the time of the invention;

(5) the unconstitutionality of the Transitional Program for Covered Business Method Patents and Covered Business Method Review (AIA § 18) under Article

III, the Seventh Amendment, and the Fifth Amendment of the United States Constitution; and

(6) any other findings or determinations supporting or related to the aforementioned issues, as well as all other issues decided adversely to Patent Owner in any order, decision, ruling, or opinion.

The remedy sought on appeal is reversal of the issues decided adversely to Patent Owner in the Final Written Decision, including, but not limited to, the Board's conclusion that the '996 patent is a CBM patent. *See Secure Access, LLC v. PNC Bank Nat'l Ass'n*, 848 F.3d 1370, 1382 (Fed. Cir. 2017).

Pursuant to 35 U.S.C. § 142 and 37 C.F.R. § 90.2(a), this Notice is being filed with the Director of the United States Patent and Trademark Office, and a copy of this Notice is being concurrently filed with the Patent Trial and Appeal Board. In addition, a copy of this Notice along with the required docketing fees are being filed with the Clerk's Office for the United States Court of Appeals for the Federal Circuit via CM/ECF.

Respectfully submitted,

Dated: September 27, 2017

By: /Jennifer M. Kurcz/
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CERTIFICATE OF SERVICE

I hereby certify that on this 27th day of September, 2017, a true and correct copy of the foregoing “PATENT OWNER’S NOTICE OF APPEAL” was Hand Delivered to:

Director of the United States Patent and Trademark Office
c/o Office of the General Counsel, 10B20
Madison Building East, 600 Dulany Street
Alexandria, VA 22314

I also herby certify that on this 27th day of September, 2017, a true and correct copy of the foregoing “PATENT OWNER’S NOTICE OF APPEAL,” and the filing fee, were filed with the Clerk’s Office of the United States Court of Appeals for the Federal Circuit, via CM/ECF.

I also herby certify that a true and correct copy of the foregoing “PATENT OWNER’S NOTICE OF APPEAL,” was served by electronic mail on this 27th day of September, 2017, on counsel of record for the Petitioners as follows:

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IBG LLC,
INTERACTIVE BROKERS LLC, TRADESTATION GROUP, INC., and
TRADESTATION SECURITIES, INC.,
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v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.,
Patent Owner.

Case CBM2016-00051
Patent 7,904,374 B2

Before SALLY C. MEDLEY, MEREDITH C. PETRAVICK, and
JEREMY M. PLENZLER, *Administrative Patent Judges*.

PLENZLER, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
Covered Business Method Patent Review
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

INTRODUCTION

A. Background

IBG LLC, Interactive Brokers LLC, TradeStation Group, Inc., and TradeStation Securities, Inc. (collectively, “Petitioner”) filed a Petition on March 29, 2016 requesting covered business method patent review of claims 1–36 (the “challenged claims”) of U.S. Patent No. 7,904,374 B2 (Ex. 1001, “the ’374 patent”). Paper 3 (“Pet.”). On July 5, 2016, Trading Technologies International, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). On August 17, 2016, we instituted a covered business method patent review (Paper 11, “Institution Decision” or “Inst. Dec.”) based upon Petitioner’s assertion that claims 1–36 are directed to patent ineligible subject matter under 35 U.S.C. § 101. Inst. Dec. 22. Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 18, “PO Resp.”) and Petitioner filed a Reply (Paper 23, “Pet. Reply”) to Patent Owner’s Response. Pursuant to our authorization, Patent Owner filed an additional submission addressing the Federal Circuit’s holding in *Technologies International, Inc., v. CQG, Inc.*, No. 2016-1616, 2017 WL 192716 (Fed. Cir. Jan. 18, 2017) (“CQG”) (Paper 29, “PO Add’l Sub.”), and Petitioner filed a reply to that submission (Paper 30). Petitioner filed a Motion to Exclude Evidence (Paper 31), and Patent Owner also filed a Motion to Exclude Evidence (Paper 34).

We held a joint hearing of this case and several other related cases on May 3, 2017. Paper 43 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown

sufficiently that claims 1–36 of the '374 patent are directed to patent ineligible subject matter under 35 U.S.C. § 101.

B. Related Proceedings

The parties indicate numerous related U.S. district court proceedings, including at least one proceeding specifically directed to the '374 patent. Pet. 2; Paper 6, 1–5.

Numerous patents are related to the '374 patent and the related patents are or were the subject of numerous petitions for covered business method patent review and reexamination proceedings. As noted above, the Federal Circuit has issued a non-precedential decision, *CQG*, which addresses whether claims of U.S. Patent Nos. 6,766,304 (“the '304 patent”) and 6,772,132 (“the '132 patent”) are patent eligible under § 101. The '374 patent at issue in this case is related to the '132 and '304 patents via continuation and divisional filings.

C. Asserted Grounds

Petitioner contends that the challenged claims are unpatentable under 35 U.S.C. § 101. Pet. 27–50.

D. The '374 Patent

The '374 patent is titled “Click Based Trading with Intuitive Grid Display of Market Depth.” Ex. 1001, (54). The '374 patent describes a display, named the “Mercury” display, and method of using the display to trade a commodity. *Id.* at Abstract, 3:5–10. The '374 patent explains that the Mercury display is a graphic user interface (“GUI”) that dynamically displays the market depth of a commodity traded in a market and allows a trader to place an order efficiently. *Id.* at 3:11–20. The Mercury display is depicted in Figure 3, which is reproduced below.

FIG. 3

E/W	10:48:44	BidQ	AskQ	Prc	LTQ
L	3		104	99	
R	5		24	98	
	720		33	97	
X	10		115	96	
	0				
	10 1H		32	95	
	50 3H		27	94	
S 0	1K 5H		63	93	
W 24			45	92	
S 0	CLR				
W 7	X 10		28	91	
	17		20	90	10
B 0	CXL	18		89	
W 15					
B 0	+ -	97		88	
W 13	NET 0	30		87	
B 0	NET REAL	43		86	
W 17		110		85	
				23	84
				31	83
				125	82
				21	81

Figure 3 of the '374 patent illustrates an example of the Mercury display with example values for trading a commodity, including prices, bid and ask quantities relative to price, and trade quantities.

The Mercury display includes a plurality of columns. Column 1005 is a static price axis, which includes a plurality of price values for the commodity. *See id.* at 7:23–25. The '374 patent explains that “[t]he column does not list the whole prices (e.g. 95.89), but rather, just the last two digits (e.g. 89).” *Id.* at 7:25–26. Columns 1003 and 1004 are aligned with the static price axis and dynamically display bid and ask quantities, respectively, for the corresponding price values of the static price axis. *See id.* at 7:23–37. The '374 patent explains that “[t]he exchange sends the price, order and fill information to each trader on the exchange” and that “[t]he physical

mapping of such information to a screen grid can be done by any technique known to those skilled in the art.” *Id.* at 4:59–66.

Column 1002 contains various parameters and information used to execute trades, such as the default quantity displayed in cell 1016. *See id.* at 7:55–8:23. A trader executes trades using the Mercury display by first setting the desired commodity and default parameters, such as default quantity. *See id.* at 8:56–9:3; Fig. 6, step 1302. Then, a trader can send a buy order or sell order to the market with a single action, such as clicking on the appropriate cell in column 1003 or 1004. *See id.* at 8:60–9:48; Fig. 6, steps 1306–1315.

E. Illustrative Claim

As noted above, Petitioner challenges claims 1–36. Claims 1 and 36 are independent, with claims 2–35 depending from claim 1. Claim 1 is representative, and is reproduced below:

1. A method for facilitating trade order entry, the method comprising:
 - receiving, by a computing device, market data for a commodity, the market data comprising a current highest bid price and a current lowest ask price available for the commodity;
 - identifying, by the computing device, a plurality of sequential price levels for the commodity based on the market data, where the plurality of sequential price levels includes the current highest bid price and the current lowest ask price;
 - displaying, by the computing device, a plurality of graphical locations aligned along an axis, where each graphical location is configured to be selected by a single action of a user input device to send a trade order to the electronic exchange, where a price of the trade order is based on the selected graphical location;

mapping, by the computing device, the plurality of sequential price levels to the plurality of graphical locations, where each graphical location corresponds to one of the plurality of sequential price levels, where each price level corresponds to at least one of the plurality of graphical locations, and where mapping of the plurality of sequential price levels does not change at a time when at least one of the current highest bid price and the current lowest ask price changes; and

setting a price and sending the trade order to the electronic exchange in response to receiving by the computing device commands based on user actions consisting of:

(1) placing a cursor associated with the user input device over a desired graphical location of the plurality of graphical locations and (2) selecting the desired graphical location through a single action of the user input device.

Ex. 1001, 11:39–12:5.

ANALYSIS

A. Claim Construction

In a covered business method patent review, claim terms are given their broadest reasonable interpretation in light of the specification in which they appear and the understanding of others skilled in the relevant art. *See* 37 C.F.R. § 42.300(b).

Applying that standard, we interpret the claim terms of the '374 patent according to their ordinary and customary meaning in the context of the patent's written description. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Petitioner proposes constructions for several terms (Pet. 24–27), and Patent Owner does not propose any explicit

claim construction. We determine that no term requires explicit construction in order to conduct properly our analysis of the asserted challenge.

B. Covered Business Method Patent

Section 18 of the AIA¹ provides for the creation of a transitional program for reviewing covered business method patents. A “covered business method patent” is a patent that “claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.” AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A patent need have only one claim directed to a covered business method to be eligible for review. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg. 48,734, 48,736 (Aug. 14, 2012) (“CBM Rules”) (Comment 8).

Based on the record before us, we are apprised of no reason to change the determination in our Institution Decision that at least claim 1 of the ’374 patent is directed to a covered business method. Inst. Dec. 11–16.

1. Data Processing or Other Operations used in a Financial Product or Service

Petitioner contends that “the ’374 patent claims *expressly require* the performance of a financial transaction, e.g., by ‘facilitating trade order entry’ through steps including ‘receiving market data for a commodity,’ and ‘setting a price and sending the trade order to the electronic exchange.’” Pet.

¹ Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284, 329 (2011) (“AIA”).

17 (citing claim 1 of the '374 patent). Based on this record, we agree with Petitioner that these activities are financial in nature.

Patent Owner does not dispute that the claims are directed to a financial product or service and, instead, contends that the claims are not directed to “data processing” or “other operations” of the financial product or service. PO Resp. 62–70. Patent Owner’s contentions are unpersuasive.

Claim 1 encompasses processing financial data associated with a commodity and processing financial data for sending a trade order for a commodity to an exchange. *See* Ex. 1001, 4:60–64 (“The present invention processes this information and maps it . . . to a screen.”); 10:52–54 (“[t]he process for placing trade orders using the Mercury display”). This processing of financial data is used in the practice, administration, or management of a commodity, which is a financial product, and in the practice, administration, or management of electronic trading with an exchange, which is a financial service or activity.

Even if there is some disagreement as to whether claim 1 includes “data processing,” there appears to be no disagreement that at least the steps noted above are operations used in the practice, administration, or management of a commodity or trading a commodity on an electronic exchange. *See* PO Resp. 66–70 (discussing only whether the '374 patent claims “data processing”). The '374 patent, therefore, at least claims “other operations used in the practice, administration, or management of a financial product or financial service” (AIA § 18(d)(1)).

Patent Owner additionally contends that the Legislative History confirms that the claimed invention is not a covered business method. PO Resp. 74–77. We are not persuaded by Patent Owner’s argument. The

language of the AIA, as passed, does not include an exemption for all user interfaces for trading commodities from covered business method patent review. *See Unwired Planet, LLC v. Google Inc.*, 841 F.3d 1376, 1381–82 (Fed. Cir. 2016) (extra-statutory sources are not persuasive when the plain words of the statute do not support such additional interpretive phrases). Each patent has to be evaluated individually to determine if it is eligible for a covered business method patent review. A determination of whether a patent is eligible for a covered business method patent review under the statute is made on a case-by-case basis on the facts of each case. 37 C.F.R. § 42.301(b).

For the reasons stated above, and based on the particular facts of this proceeding, we conclude that the '374 patent “claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service” and meets that requirement of § 18(d)(1) of the AIA.

2. Exclusion for Technological Inventions

To determine whether a patent is for a technological invention, we consider “whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.” 37 C.F.R. § 42.301(b).

The following claim drafting techniques, for example, typically do not render a patent a “technological invention”:

- (a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.

(b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.

(c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763–64 (Aug. 14, 2012).

Both prongs must be satisfied in order for the patent to be excluded as a technological invention. *See Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1326–27 (Fed. Cir. 2015).

Petitioner contends that rather than reciting a technical feature that is novel or unobvious over the prior art, the claims of the '374 patent generally recite trading software that is implemented on a conventional computer. Pet. 19–22. Petitioner additionally asserts that the claims of the '374 patent do not fall within § 18(d)(1)'s exclusion for “technological inventions” because the '374 patent does not solve a technical problem using a technical solution. Pet. 22–24. Patent Owner disagrees (PO Resp. 71–74), but fails to explain how the *claimed* subject matter recites a technological feature that is novel and unobvious over the prior art or solves a technical problem using a technical solution.

We are persuaded by Petitioner's contentions that at least claim 1 of the '374 patent does not recite a novel and non-obvious technological feature. The specification of the '374 patent treats as well-known all potentially technological aspects of the claims. For example, the '374 patent discloses that its system can be implemented “on any existing or future terminal or device” (Ex. 1001, 4:4–7), each of which is known to include a display, and discloses that the input device can be a mouse (*id.* at 4:8–11),

which is a known input device. The '374 patent further discloses that “[t]he scope of the present invention is not limited by the type of terminal or device used.” *Id.* at 4:7–8. The '374 patent explains that the programming associated with the GUI is insignificant. *See, e.g.*, Ex. 1001, 4:60–67 (explaining that the “present invention processes [price, order, and fill] information and maps it through simple algorithms and mapping tables to positions in a theoretical grid program” and “[t]he physical mapping of such information to a screen grid can be done by any technique known to those skilled in the art”).

Petitioner notes that the '374 patent “purports to minimize the risk of the market price changing before the trade is executed, such that the trader ‘misses the price.’” Pet. 22 (citing Ex. 1001, 2:57–59; 3:2–4). Petitioner argues that “contending with price fluctuations in a market is not a technological problem.” *Id.* Petitioner contends that “the '374 patent does not offer a technical solution” because “[i]t does not claim a more accurate mouse or a computer that responds faster.” *Id.* at 23.

We are persuaded that the '374 patent does not solve a technical problem with a technical solution. As written, claim 1 requires the use of only known technology. Moreover, we do not see how claim 1, for example, even solves the problem alleged by Patent Owner (i.e., missing an intended price). *See, e.g.*, Ex. 2169 ¶ 77. Given this, we determine that at least claim 1 does not solve a technical problem using a technical solution and at least claim 1 does not satisfy the second prong of 37 C.F.R. § 42.301(b).

3. Conclusion

In view of the foregoing, we conclude that the '374 patent is a covered business method patent under AIA § 18(d)(1) and is eligible for review using the transitional covered business method patent program.

C. Section 101 Patent-Eligible Subject Matter

Petitioner challenges claims 1–36 as directed to patent-ineligible subject matter under 35 U.S.C. § 101. Pet. 28–50. Patent Owner disagrees. PO Resp. 12–62.

Under 35 U.S.C. § 101, we must first identify whether an invention fits within one of the four statutorily provided categories of patent-eligibility: “processes, machines, manufactures, and compositions of matter.” *Ulramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713–14 (Fed. Cir. 2014).

There is no dispute that claims 1–35 fit within one of the categories of patent-eligibility. Petitioner asserts, however, that “claim 36 of the '374 patent is invalid because it encompasses subject matter that does not fall into any of the four statutory classes of § 101.” Pet. 48. Claim 36 recites a “computer readable medium having stored therein instructions.” Petitioner contends that “the BRI of ‘medium,’ as used in claim 36 of the '374 patent . . . is broad enough to cover substances ‘such as wires, air, or a vacuum’ through which transitory electrical signals can propagate.” Pet. 49 (citing *In re Nuijten*, 550 F.3d 1346, 1352 (Fed. Cir. 2007)); Pet. Reply 24.

Patent Owner responds that there is no evidence to support Petitioner’s contention that one skilled in the art would have understood “computer readable medium having stored therein instructions” to encompass a signal at the time of the invention. PO Resp. 61–62. Petitioner

responds to Patent Owner’s contentions by simply asserting that “the Board correctly found that the BRI of a ‘computer readable medium’ encompasses transitory media” and “[n]othing in the specification limits a broad application of this definition.” Pet. Reply 24.

Petitioner’s response is unhelpful. In our Institution Decision, we explicitly noted that our construction was preliminary and specifically indicated that “[t]he broadest reasonable interpretation, in light of the specification, of ‘stored’ is an issue that requires further development of the record.” Inst. Dec. 9. In its Reply, Petitioner cites no evidence to rebut Patent Owner’s contentions regarding how one skilled in the art would have understood the claim language at issue at the time of the invention. In fact, Petitioner does not even acknowledge those contentions. At oral hearing, when asked why no evidence was provided in this regard, Petitioner had no explanation other than “it would be difficult . . . because this is a term of art in the patent field” and “you can[not] go to an IEEE dictionary and find necessarily a dictionary definition that would be helpful here.” Tr. 71:4–10.

Accordingly, on this record, which is absent any further evidence or meaningful argument from Petitioner, we are not persuaded that at the time of the invention one skilled in the art would have understood “computer readable medium having stored therein instructions” as encompassing transitory, propagating signals.

Nevertheless, we are persuaded that claims 1–36 do not recite patent-eligible subject matter for the reasons that follow.

1. Abstract Idea

Section 101 “contains an important implicit exception [to subject matter eligibility]: 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) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). In *Alice*, the Supreme Court reiterated the framework set forth previously in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66, 70–71 (2012), “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.*

Claim 1 is “[a] method for facilitating trade order entry” and recites “receiving . . . market data,” “identifying . . . sequential price levels,” “displaying . . . graphical locations along an axis,” “mapping . . . the . . . sequential price levels to the . . . graphical locations,” and “setting a price and sending the trade order.”² In our Institution Decision, we specifically set forth our understanding of the limitations noted above, explaining that claim 1 “do[es] not require that the graphical locations *display* the price levels that are mapped to them, any other information, or even any indication as to which of those graphical locations correspond to bids and which correspond to asks.” Inst. Dec. 10–11. We further explained that, based on our understanding of the claim language, the “claims provide [no] indication to a user of market information, such as price, order quantity, or order type” and “the graphical locations simply could be ‘black boxes’ with price values associated with them, and *no information provided to the user*

² The following discussion addresses claim 1, with the understanding that the discussion applies equally to claim 36, which recites a computer readable medium having instructions to execute a method substantially the same as the method of claim 1.

indicating that price value, the order quantity, or the order type.” *Id.* Patent Owner does not dispute our understanding of the claims, which, as noted above, was set forth explicitly in our Institution Decision.

“The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (citations omitted). There is no definitive rule to determine what constitutes an “abstract idea.” Rather, the Federal Circuit has explained that “both [it] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016); *see also Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (explaining that, in determining whether claims are patent-eligible under § 101, “the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided”). As explained in our Institution Decision, “these claims are drafted at such a high level of abstraction that it is difficult to imagine the bounds of their application.” Inst. Dec. 11.

Petitioner argues that the challenged claims “are directed to the abstract, fundamental economic practice of trading based on displayed market information and user input.” Pet. 29. In our Institution Decision, we specifically indicated that “the concept embodied by the majority of the limitations appears to be even broader than that suggested by Petitioner,” stating that independent claims 1 and 36 are directed to “the abstract idea of

receiving user input and placing a trade order.” Inst. Dec. 19. Patent Owner responds to our characterization of the claims by alleging, generally, and without meaningful explanation, that “the ’374 patent does not simply claim its invention to be the concept of . . . ‘receiving user input and placing a trade order,’ the PTAB’s purported abstract idea.” PO Resp. 2 (citing Inst. Dec. 19); *see also id.* at 51 (“Nor are the claims directed to ‘receiving user input and placing a trade order,’ the PTAB’s purported abstract idea.” (citing Inst. Dec. 19)).

As noted above, claim 1 only minimally requires collecting and analyzing information and includes no requirement that any of that information is displayed. Even collecting, analyzing, and displaying information, by itself, however, does not remove claims from abstraction. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016). To the extent claim 1 requires a GUI, it does so in the most basic sense, only requiring generic graphical locations that are selectable by a user. Claims that require a GUI are not automatically patent eligible. *Affinity Labs*, 838 F.3d at 1255–56; *Apple, Inc., v. Ameranth, Inc.*, 842 F.3d 1229, 1234 (Fed. Cir. 2016). In both *Affinity Labs* and *Ameranth*, the court determined that the claims were not directed to a particular way of programming or designing the software, but instead merely claim the resulting systems, and determined that the claims are not directed to a specific improvement in the way computers operate. *Affinity Labs*, 838 F.3d at 1260–61; *Ameranth*, 842 F.3d at 1241. The same is true here in that the claims are not directed to any particular way of programming or designing software, but merely claim the resulting system and not any specific improvement in the way a computer operates.

Patent Owner only discusses, generally, patent eligibility requirements under § 101, without explaining how that discussion applies to the specific claim limitations of the '374 patent. *See, e.g.*, PO Resp. 1–17, 23–33.

Patent Owner, instead, continually alleges that the claims are directed to a specific graphical user interface. *See, e.g.*, PO Resp. 1 (“The claims of the '374 patent are patent eligible because they are not directed to an “abstract idea,” but are instead directed to the specific structure, makeup, and functionality of a technological graphical user interface (“GUI”) tool that can be used for electronic order entry.”), 10 (“TT’s claims are directed to a specific implementation—that is, a specific GUI.”), 12 (“[T]he '374 patent claims are patent eligible because they claim the construction of a specific GUI”), 23 (“TT’s claims set forth a particular way to construct a specific GUI with specific structure, makeup, and functionality.”), 27 (“The claims here are directed to constructing a GUI with a specific structure, makeup, and functionality that is both a specific means or method and a particular, practical implementation of an order entry interface.”).

The only reference to specific claim limitations in the Patent Owner Response related to whether the claim 1 is directed to an abstract idea is a reproduction of the claim language (PO Resp. 18–22), followed by conclusory statements, such as “because of this structure, makeup, and functionality, the mapping of the plurality of sequential price levels does not change at a time when at least one of the current highest bid price and the current lowest ask price changes, providing the benefits described in the specification” (*id.* at 22). Patent Owner alleges that “[t]his specific combination of display elements and features differed from the conventional GUIs at the time of the invention and addressed a specific problem created

by these conventional GUIs, namely, improving accuracy without sacrificing speed and improving usability.” *Id.* at 28.

Although Patent Owner provides a table allegedly illustrating how claim 1 “is constructed to display and function,” that characterization of the “structure, makeup, and functionality” of the claims is conclusory and inaccurate. PO Resp. 19–21 (citing Ex.1001, 11:39–12:5; Ex. 2168 ¶ 42). For example, Patent Owner contends that “[t]he structure of each graphical location is aligned along the *price* axis structure on the visual display” and “[e]ach graphical location functions such that it is selectable . . . to send a trade order . . . at the *price* aligned with the selected graphical location.” *Id.* at 20 (emphasis added). The testimony from Mr. Gould Bear cited by Patent Owner is simply a reproduction of the table spanning pages 19–22 of the Patent Owner Response. Ex. 2168 ¶ 42. Claim 1, however, recites “an axis,” not “a price axis,” and does not require any display of price information or any other specific type of information.³

As for Patent Owner’s arguments that we should follow the Federal Circuit’s guidance in *CQG* (*See* PO Add’l Sub. 1–5), comparing the claims of the patents involved in *CQG* with those in the ’374 patent is not particularly helpful here. Although the ’374 patent shares a specification with the patents at issue in *CQG*, the claims at issue in the ’374 patent are much broader. In its additional submission, Patent Owner contends that “the ’374 patent claims are in some respects narrower than the claims of the ’132 and ’304 patents,” which were at issue in *CQG*. PO Add’l Sub. 5. Patent

³ Patent Owner clearly knew how to claim a price axis, but chose not to limit the claims in that manner in the ’374 patent. *See* Ex. 2111, 12:44 (earlier filed patent claiming a “price axis” in the same chain of continuation filings that resulted in the ’374 patent).

Owner reproduces portions of claim 1 from the '374 patent that recite the features of “setting a price and sending the trade order to the electronic exchange” in that claim. *Id.* Patent Owner offers no explanation, however, as to how that claim language makes claim 1 of the '374 patent narrower, in a meaningful way, than what is recited in the '132 or '304 patent claims. The '304 patent, for example, recites a similar limitation (“setting a plurality of parameters for a trade order . . . and sending the trade order to the electronic exchange”) as well as numerous other limitations not found in claim 1 of the '374 patent.

Accordingly, comparing the claims at issue in this proceeding with those addressed in *CQG* is not particularly helpful here, particularly when the court implied that even those narrower claims of the '132 and '304 patents are on the line between patent eligibility and ineligibility (*see CQG*, 2017 WL 192716, at *4 (noting the “close question[] of eligibility”)).

As explained above, claim 1 is simply directed to receiving user input to send a trade order. There is no dispute that receiving user input and placing a trade order, a fundamental economic practice, is an abstract idea.

2. *Inventive Concept*

Next we turn to “the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78–79). The additional elements must be more than “well-understood, routine, conventional activity.” *Id.* at 1298. On this record, we are persuaded that the challenged claims of the '374 patent do not add an inventive concept sufficient to ensure

that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *See* Pet. 33–44.

As noted above, the specification of the '374 patent treats as well-known all potentially technological aspects of the claims. For example, the '374 patent discloses that its system can be implemented “on any existing or future terminal or device” (Ex. 1001, 4:4–7), each of which is known to include a display, and discloses that the input device can be a mouse (*id.* at 4:8–11), which is a known input device. The '374 patent further discloses that “[t]he scope of the present invention is not limited by the type of terminal or device used.” *Id.* at 4:7–8. The '374 patent also describes the programming associated with the GUI as insignificant. *See, e.g., id.* at 4:60–67 (explaining that “present invention processes [price, order, and fill] information and maps it through simple algorithms and mapping tables to positions in a theoretical grid program” and “[t]he physical mapping of such information to a screen grid can be done by any technique known to those skilled in the art”).

Patent Owner acknowledges that “prior art GUIs provided the ability to enter and send order messages to an electronic exchange using . . . order entry screens,” and specifically references the Figure 2 “conventional GUI tool” described in the '374 patent. PO Resp. 13. Patent Owner does not appear to contend that anything in the claim is unconventional other than, perhaps, that the “mapping of the plurality of sequential price levels does not change at a time when at least one of the current highest bid price and the current lowest ask price changes.”⁴ *See, e.g.,* Ex. 2169 ¶¶ 43–69. That,

⁴ Patent Owner explicitly acknowledges that the combination of other features recited in the claim are conventional in related proceedings

however, does not add an inventive concept, as it simply maintains the previous association between a given graphical location and its price level. That limitation simply requires that nothing changes, other than the data that is received.

Patent Owner argues, however, that “[t]he claims recite an inventive concept (and thus pass prong II under *Alice*) at least because they are an unconventional and revolutionary combination of features” and “the claimed GUI tool is constructed to provide the claimed structure, function, and makeup for displaying, mapping, and order entry.” PO Resp. 34. Again, we note that Patent Owner’s arguments do not address the elements recited *in the claim*. Patent Owner discusses *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), for example, but offers no specific explanation as to how the claims of the ’374 patent are like those that were at issue in that case. PO Resp. 38–41. Unlike claim 1 of the ’374 patent, the court in *DDR Holdings* determined those claims were not directed to “a fundamental economic or longstanding commercial practice” or “an invention that is . . . merely the routine or conventional use of the Internet.” *DDR Holdings*, 773 F.3d at 1257, 1259. Rather, the claims in *DDR Holdings* were characterized as providing “a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a

addressing patents in the same family of continuation filings that resulted in the ’374 patent. For example, when discussing the Figure 2 “conventional GUI tool” referenced in the ’374 patent, Patent Owner acknowledged that “these types of tools permitted ‘single action’ order entry that consisted of a trader presetting a default quantity and then clicking on a cell in the screen (i.e., pressing a button on the tool) to cause a trade order message to be sent to the exchange at the preset quantity and at the price value associated with that cell.” CBM2014-00136, Paper 18, 7.

hyperlink.” *Id.* at 1258. As explained above, we see nothing other than routine and conventional features in claim 1.

Patent Owner fails to identify, and we are not apprised of, an inventive concept in the claims. Patent Owner does not allege that a specific claim limitation, or combination of limitations, provides an inventive concept. As explained above, we are persuaded that the claim does not include elements that “transform the nature of the claim” into a “patent-eligible application.”

Given the above, we determine that the combination of elements of the claim does not transform the nature of the claim into a patent-eligible application of the abstract idea. They do not add significantly more to the abstract idea.

3. Dependent Claims

Petitioner contends that the additional elements recited by dependent claims 2–35 do not add significantly more to the abstract idea so as to render the claims patent-eligible. Pet. 39–44. Based on our review of the record before us, we are persuaded by Petitioner’s contentions regarding claims 2–35. Those claims further define, for example, the information mapped to the graphical locations (claims 2–11), the orientation of the graphical locations on the screen (claims 12, 33, and 34), displaying additional information (claims 13–18), and features associated with receiving and executing the user’s command (claims 19, 20, 23–27, and 35). Nothing in those claims removes them from abstraction or provides an inventive concept sufficient to save the claims from ineligibility.

Patent Owner addresses only claims 13–15 specifically, noting that “dependent claims 13–15 recite, inter alia, a first indicator and second

indicator that move relative to the graphical locations” and “[t]his relative movement provided a significant unexpected improvement over the preexisting technology.” PO Resp. 29. Patent Owner fails to offer any persuasive explanation, however, as to why displaying this additional information makes the claims any less abstract or provides an inventive concept sufficient to save the claims from ineligibility.

4. Conclusion

Having considered the record before us, we are persuaded that Petitioner has shown sufficiently that claims 1–36 of the ’374 patent are not directed to patent eligible subject matter under 35 U.S.C. § 101.

D. Motions to Exclude Evidence

Petitioner moves to exclude Exhibits 2211, 2220, 2222, 2287, and 2292–2296 (the *eSpeed/CQG* Transcripts); Exhibit 2223 (the Electronic Trader Declarants Exhibit); Exhibit 2214 (Animation); Exhibit 2169 ¶¶ 71, 79, 80, 83–86, 92–95, and 100–102 (Confidential Declaration of Christopher Thomas); and Exhibits 2206, 2207, 2415, 2416, 2250, and 2279–2282 (Documents from District Court Cases). Paper 31, 2–10. Patent Owner moves to exclude Exhibit 1003 (TSE) and Exhibit 1009 (the transcript of Mr. Kawashima’s testimony). Paper 34, 1.

Petitioner’s Motion to Exclude Evidence and Patent Owner’s Motion to Exclude Evidence are dismissed because we do not rely on the Exhibits or portions of the Exhibits addressed by those motions in reaching our Decision.

ORDER

For the reasons given, it is:

ORDERED that claims 1–36 of the '374 patent are unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude Evidence is *dismissed*;

FURTHER ORDERED that Patent Owner's Motion to Exclude Evidence is *dismissed*; and

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

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