No. 24-

IN THE

Supreme Court of the United States

HARRIS BRUMFIELD, TRUSTEE FOR ASCENT TRUST,

Petitioner,

v.

IBG LLC, INTERACTIVE BROKERS LLC,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

PETITION FOR A WRIT OF CERTIORARI

MICHAEL D. GANNON*
**Counsel of Record*
BAKER & HOSTETLER LLP
ONE NORTH WACKER DRIVE, SUITE 3700
CHICAGO, ILLINOIS 60606
TEL.: (312) 416-6294
mgannon@bakerlaw.com

Counsel for Petitioner

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QUESTIONS PRESENTED

1. Federal Rule of Civil Procedure 60(b)(3) empowers parties to seek relief from an adverse judgment, upon a showing of "fraud," "misrepresentation, or misconduct by an opposing party." Petitioner filed such a motion in this case, requesting an entirely new damages trial based on Respondent's fraud. The district court abused its discretion by refusing to grant a new trial, and the Federal Circuit perpetuated this error by affirming.

Additionally, Federal Rule of Civil Procedure 60(b)(3) includes no requirement that a party must establish diligence in uncovering another party's fraud, misrepresentation, or misconduct. Nonetheless, the Federal Circuit held that diligence is a requirement to relief under Rule 60(b)(3). The circuits are split on this issue. The first question presented is:

Whether the lower courts abused their discretion by denying the meritorious Rule 60(b)(3) motion, and whether Rule 60(b)(3) requires a showing that a moving party was diligent in uncovering fraud, misrepresentation, or misconduct to obtain relief from a judgment?

2. The three categorical judicial exceptions to patent eligibility that are further defined by the two-step *Alice/Mayo*[1] test impose limitations to eligibility that are inconsistent with the text of 35 U.S.C. § 101 of the 1952 Patent Act. These limitations are

[1] *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208 (2014); *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66 (2012).

completely untethered from the statute and have swallowed the intended rule of broad patent eligibility itself. The second question presented is:

Whether this Court's three categorical judicial exceptions to patent eligibility that are further defined by the two-step *Alice/Mayo* test impose limitations on patent eligibility that are inconsistent with the text of 35 U.S.C. § 101 of the Patent Act of 1952?

3. The Federal Circuit routinely and improperly affirms lower courts that resolve eligibility questions at the summary judgment stage even when there are disputed issues of material fact. The Federal Circuit did so here in ignoring over 800-pages of evidence that created a material factual dispute as to whether the patents were patent eligible. The Federal Circuit also routinely decides issues that were never appealed or ruled on below. It did so here by ruling on a new issue sua sponte. The third question presented is:

Whether this Court's supervisory authority is needed to correct the Federal Circuit's improper (1) application of Rule 56 to patent cases and (2) practice of deciding issues that were never argued or briefed on appeal?

RULE 29.6 STATEMENT

Petitioner has no parent corporation, and no publicly held company owns 10 percent or more of its stock.

LIST OF PROCEEDINGS

There are no other court proceedings "directly related" to this case within the meaning of Rule 14(b)(iii).

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PETITION FOR A WRIT OF CERTIORARI

Mr. Brumfield respectfully requests a writ of certiorari to review the judgment of the U.S. Court of Appeals for the Federal Circuit.

DECISIONS BELOW

The Federal Circuit's opinion is reported at 97 F.4th 854 (Fed. Cir. 2024) and reproduced at Pet. App. 1a-57a. The decisions and orders of the district court are reported at 2021 WL 2473809 (N.D. Ill. June 17, 2021) and 586 F. Supp. 3d 827 (N.D. Ill. 2022), and reproduced at Pet. App. 58a-104a.

JURISDICTION

The Federal Circuit entered its judgment on March 27, 2024. A timely combined petition for panel rehearing and rehearing en banc was denied on August 5, 2024. (Pet. App. 105a-106a). On October 3, 2024, the Chief Justice granted Mr. Brumfield's application to extend the time to file this petition until January 2, 2025. This petition is thus timely filed under Sup. Ct. R. 13. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS AND RULES

Federal Rule of Civil Procedure 60(b)(3) provides:

(b) Grounds for Relief from a Final Judgment, Order, or Proceeding. On motion and just terms, the court may relieve a party or its legal representative from a final judgment, order, or proceeding for the following reasons:

(1) mistake, inadvertence, surprise, or excusable neglect;

(2) newly discovered evidence that, with reasonable diligence, could not have been discovered in time to move for a new trial under Rule 59(b);

(3) fraud (whether previously called intrinsic or extrinsic), misrepresentation, or misconduct by an opposing party;

(4) the judgment is void;

(5) the judgment has been satisfied, released, or discharged; it is based on an earlier judgment that has been reversed or vacated; or applying it prospectively is no longer equitable; or

(6) any other reason that justifies relief.

35 U.S.C. § 101 provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 100(b) provides:

The term "process" means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.

Federal Rule of Civil Procedure 56(a) provides:

(a) Motion for Summary Judgment or Partial Summary Judgment. A party may move for summary judgment, identifying each claim or defense--or the part of each claim or defense--on which summary judgment is sought. The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law. The court should state on the record the reasons for granting or denying the motion.

INTRODUCTION

Rule 60(b)(3) of the Federal Rules of Civil Procedure empowers courts to provide relief from an adverse judgment upon demonstrating "fraud," "misrepresentation, or misconduct by an opposing party."

This Court should use this case to correct the errors made by the district court in denying, and the Federal Circuit in affirming, the Petitioner's meritorious Rule 60(b)(3) motion. Specifically, Petitioner uncovered evidence post-trial that Respondent grossly misrepresented its damages data, rendering the jury's verdict unsupportable. The district court abused its discretion by denying Petitioner's motion and the Federal Circuit erred by failing to correct this injustice.

This case also presents a question of significant importance in resolving a circuit conflict on the interpretation of this Rule. Unlike Rule 60(b)(2), which requires "reasonable diligence" in discovery of the grounds for relief from judgment, Rule 60(b)(3) has no similar diligence requirement. Yet in a departure from the majority of circuits, the Federal Circuit denied Petitioner's request for relief under Rule 60(b)(3) for want of diligence. (Pet. App. 56a-57a). This ruling departs from Seventh Circuit law, which the Federal Circuit purported to apply, and conflicts with the law of all other Circuits. Only the Ninth Circuit also requires diligence.

The Court should also address whether the three categorical judge-made exceptions to patent eligibility that are further defined in the *Alice/Mayo* framework are consistent with the plain language of § 101 of the Patent Act. The Court's decisions have assumed as much, but the text and structure of the statute conflict with these judge-made limitations. Indeed, the text of § 101 prohibits inventions if they are not *new and useful*. The judicial categorical exceptions that are defined by the *Alice/Mayo* framework, however, impose other limitations for patent eligibility such as, whether claims "purport to improve the functioning of the computer itself," "effect an improvement in any other technology or technical field," or provide an "inventive concept" that is not "well-understood, routine, [and] conventional."[2] This Court should dispose of this unworkable jurisprudence and end the decades of turmoil whereby courts have struggled to apply these judge-made limitations to modern age inventions.

Finally, this Court should exercise its supervisory authority to address the Federal Circuit's persistent misapplication of procedural standards. Specifically, the Federal Circuit routinely affirms the invalidation of patents under 35 U.S.C. § 101 on summary judgment, despite the existence of material factual disputes. It also improperly renders sua sponte decisions on arguments not presented by the parties. Without this Court's intervention, lower courts will continue to unjustly deprive litigants of the opportunity to be heard.

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[2] *Alice*, 573 U.S. at 221, 225 (internal quotations omitted).

STATEMENT OF THE CASE

I. THE DISTRICT COURT ABUSED ITS DISCRETION BY DENYING BRUMFIELD'S RULE 60(B)(3) MOTION IN THE PRESENCE OF MASSIVE FRAUD AND REQUIRING TT TO UNCOVER THE FRAUD DILIGENTLY, WHICH THE FEDERAL CIRCUIT IMPROPERLY AFFIRMED

Petitioner in this case is referred to as "Trading Technologies" or "TT" or alternatively "Brumfield Trustee" due to the recent sale of TT.

TT was the original plaintiff in this patent lawsuit against Interactive Brokers Group ("IBG"), which was filed in February 2010. (CAFC App. 57202). Harris Brumfield was the primary investor in TT and the majority shareholder of TT for 20+ years until its sale to 7RIDGE, Cboe, and SGX, which closed on December 21, 2021. (CAFC App. 103656). Mr. Brumfield was also CEO of TT from 2003–2014 and Chairman of the Board from 2014–2018.

The patents asserted in this lawsuit are no longer owned by TT. (CAFC App. 103656). They were spun out into a trust named Ascent Trust in conjunction with the aforementioned sale of TT. *Id.* The beneficiaries of Ascent Trust are the former shareholders of TT, of which Mr. Brumfield makes up 51%, one thousand current and former employees make up 40%, and three other investors make up 9%. Mr. Brumfield is the sole trustee of Ascent Trust. *Id.* Accordingly, Mr. Brumfield on behalf of Ascent Trust was substituted for TT in this patent case against IBG. (CAFC App. 103482).

After a month-long jury trial (August 9, 2021–September 7, 2021) in this patent lawsuit, the jury returned the following verdict:

- Validity of patents in TT's favor
- Infringement of patents in TT's favor, with an infringement period of July 2004–January 2022
- Damages of $6,610,985 in IBG's favor, as TT asked for $962,440,850, while IBG proposed $3,305,493
- No willful infringement in IBG's favor.

(CAFC App. 93223-93227; CAFC App. 2; Pet. App. 23a; CAFC App. 102577).

TT uncovered evidence post-trial that IBG fraudulently misrepresented its damages data, rendering the jury's verdict unsupportable. (CAFC App. 97513; CAFC App. 94675). TT filed a motion with the district court requesting an entirely new damages trial based on IBG's fraud. (CAFC App. 93236-93243; CAFC App. 97511-97515; CAFC App. 103483-103491; CAFC App. 103656-103661). The district court denied this motion based on no fraud by IBG and TT's lack of due diligence, and the CAFC affirmed on both fronts. (CAFC App. 29-41; Pet. App. 55a-57a; Pet. App. 58a-76a)

A. The Patent Claims in this Case; IBG's BookTrader Tool Is the Tool Accused of Infringement

The patent claims in this case, a part of the '132/'304 patents, are directed to a GUI order entry tool comprised of locations along a static price axis designed to receive single action commands to send ("submit") electronic orders to the exchange. (CAFC App. 1760-1761; CAFC App. 103656).

IBG provides two graphical user interfaces (GUIs) for Trader Workstation (TWS), TWS Classic (Classic) and TWS Mosaic (Mosaic). (CAFC App. 103656). Classic was launched in 1995. Id. Mosaic was launched in 2012 and became the default version for TWS in 2014. Id. BookTrader is one of the many tools provided in Classic and Mosaic, and it is the tool accused of infringement in this case. Id.

B. The Data

In discovery, IBG produced 500+ stats reports that IBG senior management, and software developers who were involved with the development of TWS, received on a weekly basis from June 2008–April 2019. (See e.g., CAFC App. 105512-105579; CAFC App. 106007-106029; CAFC App. 116548-116602; CAFC App. 132582-132652).

When we check the 500+ stats reports, they show that BookTrader was only responsible for 4.08% of the orders submitted in TWS that resulted in trades from June 2008–April 2019. (See e.g., CAFC App. 105512-105579; CAFC App. 106007-106029; CAFC App. 116548-116602; CAFC App. 132582-132652). Our trading domain folks have always been adamant that this percentage was utter nonsense. (See generally CAFC App. 103519-103520; CAFC App. 103522-103585; CAFC App. 103587; CAFC App. 135548-135567; CAFC App. 135568).

C. Definitions

For clarity, orders are instructions. (CAFC App. 101354). They express the desire of a client to buy or sell a specific instrument. Id. Orders are also called submits. Id. Trades occur when different orders match. Trades are also called fills. Id.

For clarity, whenever we speak of tools that "submit" orders, we are talking about "submitting" (sending) orders to the exchange. (CAFC App. 103656; Blue Br. at 24).

D. The District Court Abused Its Discretion in Finding that TT Was Not Diligent in Uncovering IBG's Fraud

The district court also denied TT's motion based on its belief that TT was not diligent in uncovering IBG's fraud/misrepresentations. (Pet. App. 69a). (Red Br. at 54). The district court held that "[n]othing prevented Brumfield from comparing [IBG]'s assertion that Accumulate/Distribute is its most valuable tool with the stat reports prior to trial and reaching the same conclusion he reaches post-trial." (Pet. App. 70a; *see also* Pet. App. 75a ("[N]othing prevented Brumfield from performing his investigation . . . prior to trial . . . .")).

The Federal Circuit affirmed, echoing that TT was not diligent in uncovering IBG's alleged fraud:

> On the basis of its supported findings, the court could properly conclude, as it did, that TT had ample reason and opportunity before trial to uncover the now-asserted problems with IBG's evidence that TT says it uncovered only through its post-trial investigation.
>
> It is institutionally important that parties generally be held to the duty to

> conduct needed investigations of facts before trial. *See, e.g.*, *Rutledge v. United States*, 230 F.3d 1041, 1052 (7th Cir. 2000) (stating that "Rule 60(b) motions cannot be used to present evidence that with due diligence could have been introduced before judgment").

(Pet. App. 56a-57a (internal citations omitted in part)). While the Federal Circuit relied on the Seventh Circuit *Rutledge* case, it failed to appreciate that *Rutledge* required diligence in view of newly discovered evidence under Rule 60(b)(2)—not fraud or misrepresentation under Rule 60(b)(3). *Rutledge*, 230 F.3d at 1052-53.[3]

II. MR. BRUMFIELD'S PATENTS RECITE A NEW AND USEFUL LADDER TOOL THAT IS PATENT ELIGIBLE

Harris Brumfield, Trustee of Ascent Trust,[4] is a renowned inventor in the field of electronic trading who patented a graphical user interface ("GUI") tool for electronic trading (the "Ladder Tool") that revolutionized the trading industry.[5]

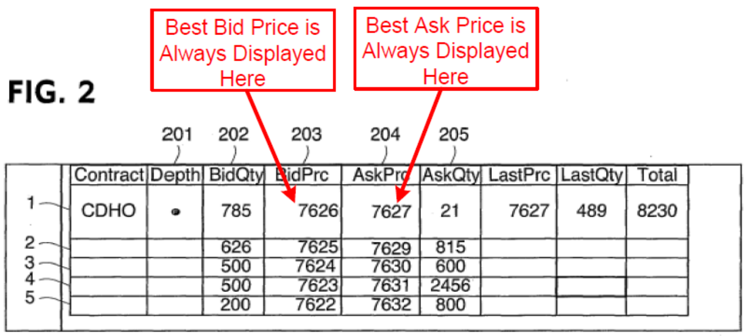
[3] The Court overlooked the Seventh Circuit's earlier and controlling *Lonsdorf v. Seefeldt* opinion, which arose under Rule 60(b)(3) and rejected any diligence requirement in obtaining relief. 47 F.3d 893, 898 (7th Cir. 1995).

[4] As explained below, Harris Brumfield, the trustee for Ascent Trust, was substituted for TT in the underlying action. For consistency, Petitioner is referred to herein as TT.

[5] At issue are U.S. Patents 7,676,411 (the "'411 patent") and 7,813,996 (the "'996 patent").

Before the Ladder Tool was invented, various conventional interfaces existed. One conventional interface was the "market grid" (Figure 2 below).

FIG. 2



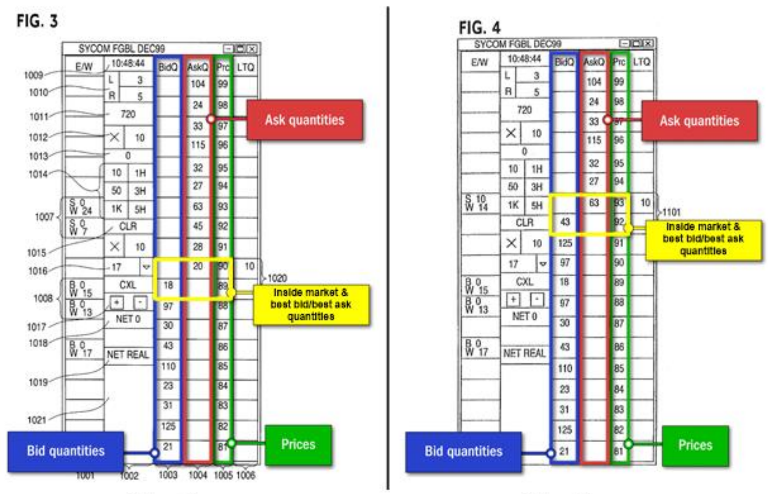
(CAFC App. 66559-66560). Although the market grid was widely accepted for rapid order entry, Mr. Brumfield noticed a significant problem with its construction. (CAFC App. 66563-66565). Specifically, because the best bid/ask prices were always displayed in the same location, the prices in those cells were constantly changing, and users were at risk of entering orders at unintended prices. *Id.* The Federal Circuit considered this market grid and found that its construction created this accuracy problem. *IBG LLC v. Trading Techs. Int'l, Inc.*, 757 F. App'x 1004, 1007 (Fed. Cir. 2019); *Trading Techs. Int'l, Inc. v. CQG, INC.*, 675 F. App'x 1001, 1006 (Fed. Cir. 2017). As the court explained:

> [A] trader might intend to click on a particular price but, between the time he decides to do so and the time he actually clicks (which may be only hundredths of a second), the price may change. He may not be able to stop the downward motion

> of his finger and the order would be sent to market at an incorrect or undesired price.

IBG, 757 F. App'x at 1007 (alteration in original) (quoting CAFC App. 66527).

The Ladder Tool (Figures 3 and 4 below) solves this problem and revolutionized the trading industry. (CAFC App. 66574-66576). It displays a range of prices along an axis (like a ladder). Unlike the market grid, the prices in cells do not change every time there is a change in the market. *Id.* As shown below, at Time 2, the inside market (yellow box) moved up, but the prices did not move. As *IBG* found, the '411/'996 patents solve the accuracy problem "by displaying market depth on a vertical or horizontal plane, which fluctuates logically up or down, left or right across the plane as the market fluctuates." 757 F. App'x at 1007 (internal quotations omitted); (*see also* CAFC App. 66647-66654; CAFC App. 66577; CAFC App. 66587-66589).



Time 1 **Time 2**

This improvement, which solves a technical problem with prior screens, was not routine, and would have been perceived as radically unconventional to those of skill in the art at the time of the invention. (CAFC App. 66648-66654; CAFC App. 66492-67335).

III. THE LOWER COURTS INVALIDATED SOME OF BRUMFIELD'S LADDER TOOL PATENTS AT SUMMARY JUDGMENT AND EXCLUDED CERTAIN OF TT'S DAMAGES TESTIMONY

In 2010, TT brought suit to enforce its patents. (CAFC App. 46). After the case was stayed pending review by the Patent Trial and Appeal Board ("PTAB"), the Federal Circuit issued its *IBG* decision, and the case resumed. 757 F. App'x at 1007.

A. The District Court Invalidated the '411/'996 Patents as Ineligible and the Federal Circuit Affirmed

In June 2021, the district court ruled on the parties' summary judgment cross-motions and held that the '411/'996 patents were ineligible under § 101.[6] (Pet. App. 84a-104a). The district court found, under *Alice/Mayo* step one, that the claims were directed to "the abstract idea of placing orders on an electronic exchange." (Pet. App. 100a). The court found that while the claimed arrangement "has benefits over the prior art, the []arrangement is not innovative in that it solves a technical problem." (Pet. App. 104a). The district court gave no weight to the Federal Circuit's *IBG* ruling, which explicitly found that the same claims are directed to a technical improvement over prior art market grids. (Pet. App. 101a-102a).

The district court also found that summary judgment was appropriate under *Alice/Mayo* step two. (Pet. App. 103a-104a). Yet, the court ignored over 800-pages of evidence that created a material factual dispute as to whether the patents were "well understood, routine and conventional." (CAFC App. 66492-67335). The district court's opinion does not mention, let alone analyze, whether the claims were well-understood, routine, and conventional.

On *de novo* review, the Federal Circuit affirmed, finding that the patented claims do not recite any improvement in computer-related technology. (Pet. App. 26a-27a). In doing so, the Federal Circuit contradicted its earlier *IBG* decision, which found that

[6] The district court found that related patents, U.S. Patents 6,772,132 (the "'132 patent") and 6,766,304 (the "'304 patent"), were eligible under § 101. (Pet. App. 96a-99a).

the claims *do* recite a technological improvement. 757 F. App'x at 1007.

Moreover, like the district court, the Federal Circuit ignored over 800-pages of evidence presented by TT that the claims were far from "well understood, routine and conventional" to a person skilled in the relevant field. (CAFC App. 66492-67335). The court failed to address how it could have been proper for the district court to rule against TT at summary judgment when there were material issues of fact. (Pet. App. 27a).

B. The District Court Excluded Certain Testimony of TT's Damages Expert, and the Federal Circuit Affirmed

The district court excluded certain testimony of TT's damages expert, Ms. Lawton. Specifically, the court excluded Ms. Lawton's damages theory that sought to recover any foreseeable damages (e.g., foreign conduct) that resulted from domestic, infringing acts. (CAFC App. 18-20). The district court excluded this testimony based on its finding that this Court's decision in *WesternGeco LLC v. ION Geophysical Corp.*, 585 U.S. 407 (2018) did not authorize damages based on foreign conduct for infringement under 35 U.S.C. § 271(a). (CAFC App. 18-20).

In a case of first impression, the Federal Circuit agreed with TT that *WesternGeco* authorizes damages based on foreign conduct in § 271(a) cases. (Pet. App. 32a). This was the sole damages issue appealed. However, instead of remanding the case to allow TT to seek such damages (as even IBG agreed was proper

(Red Br. at 50 n.10)), the Federal Circuit affirmed the exclusion of TT's damages expert based on its novel view that the expert failed to establish a "casual connection" between infringement (i.e., the infringing acts under § 271(a)) and the "foreign conduct for which the proposal seeks royalty damages." (Pet. App. 52a). This issue was never argued or briefed by the parties on appeal.

TT sought review of the opinion en banc. (Pet. App. 105a-106a). Although the Federal Circuit requested a response, it ultimately denied rehearing. (*Id.*).

This petition followed.

REASONS FOR GRANTING THE PETITION

I. THE COURT SHOULD GRANT REVIEW TO ADDRESS IBG'S FRAUD AND RESOLVE A CIRCUIT SPLIT OVER TT'S MERITORIOUS RULE 60(b)(3) ARGUMENT

A. IBG's Massive Fraud

IBG has committed massive fraud over this entire case, the evidence is so straightforward and obvious, and the district court and the CAFC have made enormous errors and abused their discretion ruling otherwise. (CAFC App. 29-41; Pet. App. 55a-57a).

As mentioned before, the patent claims in this case, a part of the '132/'304 patents, are directed to a GUI order entry tool comprised of locations along a static price axis designed to receive single action commands to send ("submit") electronic orders to the exchange. (CAFC App. 1760-1761).

IBG was able to convince the jury to adopt its damages model, which was premised on multiplying an asserted reasonable royalty times the number of trades directly resulting from users clicking along BookTrader's static price axis to submit orders to the exchange. (CAFC App. 42; CAFC App. 102577; Pet. App. 5a-8a, 23a).

IBG, in accordance with this damages model, represented that it tracked (i.e., counted) orders and trades in TWS by what tools submit the orders to the exchange. For instance, Mr. Galik, IBG's CEO, testified in detail at trial that IBG tracks orders and trades by the tools that submit the orders. (CAFC App. 101354-101356 (citing CAFC App. 133373); CAFC App. 101373). Indeed, the district court confirmed that IBG claimed during discovery and trial that it tracks orders and trades by what tools submit the orders. (CAFC App. 29-30).

After trial, TT learned that IBG's representation about tracking orders and trades by what tools submit the orders was false, and we filed our motion for a new damages trial. (Blue Br. at 23, 54). In response, IBG attached a declaration from Mr. Stetsenko to its opposition brief, where the following is laid out in paragraph 22:

The order entry tools in TWS can largely be categorized into two categories: (a) those that are self-contained (i.e., they have their own order entry mechanism); and (b) those that are intended for order placement but do not have their own graphical order entry mechanism and thus use another IB tool for that purpose (e.g., Mosaic Market Depth (aka "Agg Book")). For the first category, the mechanism of order entry is straightforward; a user simply clicks to place an order or uses the keyboard to input an order from that tool. BookTrader belongs to this first category. For the second category, because the tools are intended for order placement but do not have their own graphical order entry mechanism, IB purposely uses another IB tool, such as the tool Order Entry, for the graphical display that the user can interact with to place an order or the user can use the keyboard to input an order. For both categories, when an order is placed using the keyboard, the order is correctly tagged with the originator tag of the tool it originated from, not any other tool. Similarly, if the order is placed using the graphical interface, the order is correctly tagged with the originator tag of the tool it originated from.

(CAFC App. 98646-98647; *see also* CAFC App. 98634-98649). Here Mr. Stetsenko is forced to admit that IBG is attributing a portion of its trades to tools that cannot submit orders and that IBG is tracking orders and trades by what tools originate (i.e., start) the orders, and not any other way. (Blue Br. at 52-54; Gray Br. at 20-23; CAFC App. 103657).

However, the district court then relied on Mr. Stetsenko's testimony to jump to the conclusion that since BookTrader is in the first category of tools, for orders submitted through BookTrader, the originating tool and the submitting tool are necessarily the same (and even claims that Mr. Brumfield confirms this). (CAFC App. 39-40; Blue Br. at 62). But Accumulate/Distribute, also in the first category of tools, proves that this cannot be the case. (CAFC App. 97513; *see also* CAFC

App. 98674; CAFC App. 98733; CAFC App. 133809-133820; Blue Br. at 61-62).

Specifically, Mr. Peterffy, IBG's founder, testified over the course of his two depositions and the trial that Accumulate/Distribute is IBG's best, most advanced, most valuable, and arguably most important tool. (CAFC App. 98670-98675; CAFC App. 98732-98734; CAFC App. 101170-101171; Blue Br. at 55). Accumulate/Distribute is an algo that works behind the scenes and is solely used to submit orders, so when Mr. Peterffy talks about its great value, it is solely in the context of submitting orders and the resulting trades. (CAFC App. 97513; *see also* CAFC App. 98674; CAFC App. 98733; CAFC App. 133809-133820; Blue Br. at 55).

Mr. Peterffy, who designed most of TWS, including Accumulate/Distribute, has been the Head of Sales at IBG for 20+ years, and is highly knowledgeable about Accumulate/Distribute. (CAFC App. 101174). As Head of Sales, he has received sales reports on a weekly basis from 12-50 salespeople for 20+ years (totaling 25k+ sales reports), and he takes the sales reports seriously. (CAFC App. 101110-101111; CAFC App. 101146-101158).

By way of Mr. Peterffy, it is only logical that Accumulate/Distribute is a major tool, with major orders submitted, and major trades thereof.

Yet IBG's 500+ "stats reports" show that Accumulate/Distribute was only responsible for a virtually nonexistent .08% of the trades in TWS from June 2008–April 2019 (i.e., 1 in every 1250 trades). (*See e.g.*, CAFC App. 105512-105579; CAFC App. 106007-106029; CAFC App. 116548-116602; CAFC App.

132582-132652; Blue Br. at 55). Mr. Stetsenko confirmed this virtually nonexistent trade volume for Accumulate/Distribute in paragraph 24 of his declaration. (*See* CAFC App. 98647-98648).

For reference, according to IBG, "Main Window" accounted for 22.9% of the trade volume, whereas Accumulate/Distribute's trade volume is a tiny fraction of this. (CAFC App. 138336).

In the end, the great value of Accumulate/Distribute and the virtually nonexistent trade volume of Accumulate/Distribute can never, ever be made sense of unless a first category tool may have orders originated to it from another tool. (CAFC App. 97513-97514). This is basic deduction. Also, the great value of Accumulate/Distribute and the virtually nonexistent trade volume of Accumulate/Distribute demonstrate the potential extreme lack of correlation between what tools originate the orders and what tools submit the orders. (Blue Br. at 55-56).

Therefore, IBG has fraudulently misrepresented the BookTrader trade volume to be something that it is utterly not. (*E.g.*, CAFC App. 98646-98647; Blue Br. at 52-56). To this end, IBG was very strategic in faking and relentlessly hammering that BookTrader was merely responsible for submitting 3-5% of the trades through TWS at trial. (*See* CAFC App. 29). This serves to belittle the invention and limit its value. This in turn serves to limit the per trade royalty rate, prevent a monthly minimum royalty rate, limit any monthly minimum royalty rate, and limit how broadly any monthly minimum is applied across those receiving TWS. (Blue Br. at 25, 56). All of this worked to perfection with the jury. Instead, had IBG provided the proper information, the difference in damages could be 100+ times.

B. The Court Should Resolve the Circuit Split Concerning the Interpretation of Rule 60(b)(3)

Divergent caselaw has spawned among the circuits on how Rule 60(b)(3) should be applied and whether diligence is required, even though it is not stated in the text of the Rule. *Compare Am. Tel. & Tel. Co. v. United Computer Sys., Inc.*, 5 F.3d 534 & n.3 (9th Cir. 1993) (reversing Rule 60(b)(3) order because asserted fraudulently withheld information was discoverable by "reasonable diligence," recognizing "conflicts" in the caselaw on this point), *with Cap Exp., LLC v. Zinus, Inc.*, 996 F.3d 1332, 1339 (Fed. Cir. 2021) (finding "Ninth Circuit's additional due diligence requirement appears contrary to the text of Rule 60(b)(3)" and noting it was not "aware of any other courts of appeals that have adopted it.").

Here, the Federal Circuit's decision not only departs from the rule's text and the majority of circuits, but also diverges from Seventh Circuit law, which the Federal Circuit was required to apply. This Court should intervene to resolve this circuit split.

Rule 60(b) "strikes a balance between the need for finality of judgments and the importance of ensuring that litigants have a full and fair opportunity to litigate a dispute." *United Student Aid Funds, Inc. v. Espinosa*, 559 U.S. 260, 276 (2010); *see also Lonsdorf*, 47 F.3d at 897. In so doing, it "reflects and confirms the courts' own inherent and discretionary power, . . . to set aside a judgment whose enforcement would work inequity." *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 233-34 (1995) (internal quotations omitted).

Rule 60(b) sets forth different grounds for granting relief from judgment. Rule 60(b)(2) allows new trials based on newly discovered evidence that moving parties, with reasonable diligence, could not have discovered in time to move for a new trial. Fed. R. Civ. P. 60(b)(2); *Fields v. City of Chicago*, 981 F.3d 534, 554 (7th Cir. 2020). Rule 60(b)(3), by contrast, addresses "fraud," "misrepresentation, or misconduct by an opposing party." Fed. R. Civ. P. 60(b)(3); *Lonsdorf*, 47 F.3d at 897. Rule 60(b)(3) "protects the fairness of the proceedings, not necessarily the correctness of the verdict." *Lonsdorf*, 47 F.3d at 897.

As Rule 60(b)(3) is addressed to serious misconduct by opposing parties, the majority of Circuits have found that there is no need to establish diligence under this Rule, in contrast with the explicit requirement of Rule 60(b)(2). *Cap*, 996 F.3d at 1339 & nn.10-11; *cf. I.N.S. v. Cardoza-Fonseca*, 480 U.S. 421, 432 (1987) (finding Congress "acts intentionally" by including "particular language in one section of a statute," but omitting it "in another section of the same Act" (internal quotations omitted)). For instance, the Seventh Circuit has unequivocally held that there is no diligence requirement under Rule 60(b)(3) for discovering fraud or misrepresentations. *Lonsdorf*, 47 F.3d at 898 ("Rule 60(b)(3) does not refer to timeliness in discovering the fraud . . . ."). The Federal Circuit itself has recognized that there is a circuit split on whether Rule 60(b)(3) requires diligence. *Cap*, 996 F.3d at 1338-39, 1339 n.11 (criticizing the Ninth Circuit for applying diligence).

In this case, the argument adopted by the district court and the Federal Circuit ignores that the focus of Rule 60(b)(3) is solely on the egregious nature of the non-moving party (IBG), not whether the moving party (TT) could have discovered the misconduct with reasonable diligence. *See Lonsdorf*, 47 F.3d at 898; *cf. Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 246 (1944) ("Surely it cannot be that preservation of the integrity of the judicial process must always wait upon the diligence of litigants."), *overruled on other grounds by Standard Oil of Cal. v. United States*, 429 U.S. 17 (1976).

This circuit split is far from trivial. It would be patently unfair to require litigants, after being subjected to opposing parties' fraud or misrepresentation, to establish that they diligently discovered the fraudulent conduct/misrepresentation. *Cf. Krock v. Elec. Motor & Repair Co.*, 339 F.2d 73, 74 (1st Cir. 1964) ("[T]o determine, as the court apparently did, that neglect gives the other party carte blanche to introduce testimony that is mistaken or worse, insulated from any further proceedings, would be to accept an evil far graver . . . .").

This case presents this Court with an ideal opportunity to resolve the circuit split. In the district court action, IBG represented to TT and the district court in discovery and throughout trial that IBG's TWS software tracked trades by the specific software tools used to submit (i.e., send) the trade orders to an electronic exchange. (Pet. App. 59a). This was not true, as TT discovered after trial. (CAFC App. 97512-97515; CAFC App. 103656-103661). However, the district court and Federal Circuit denied relief based on their view that TT had not acted diligently in uncovering the fraud. (Pet. App. 69a; Pet. App. 56a-57a). There should be no requirement that the moving party diligently uncover the opposing party's fraud/misrepresentations. TT was only required to promptly bring this issue to the district court's attention once TT became aware of the fraud/misrepresentation, which TT did.

Resolving this circuit split over Rule 60(b)(3) would end the diverging views that, as applied by the Federal Circuit, impair justice by shifting the blame for fraud on the injured party.

II. THE COURT SHOULD GRANT REVIEW BECAUSE THE JUDICIALLY CREATED LIMITATIONS ON ELIGIBILITY ARE INCONSISTENT WITH THE TEXT OF § 101 UNDER THE 1952 PATENT ACT

The Court has never given any consideration to whether the three categorical judicially-created exceptions to eligibility as further defined in the two-step *Alice/Mayo* framework are consistent with the language of the Patent Act of 1952. They are not. The § 101 statute and its legislative history only require that a patent claim purport to be *new and useful* and made by man to be eligible for patenting. Moreover, the plain text of § 101 does not contain any of the limitations set forth in the *Alice/Mayo* framework. Indeed, § 101 is silent on the majority of issues central to the *Alice/Mayo* framework, such as whether the claims "purport to improve the functioning of the computer itself," "effect an improvement in any other technology or technical field," or provide an "inventive concept" that is not "well-understood, routine, [or] conventional."[7]

Worse yet, the *Alice/Mayo* framework conflicts with the plain language of the statute. Specifically, the *Alice/Mayo* framework contains concepts that were *intentionally* excluded from § 101 of the 1952 Patent Act. For example, the legislative history of the 1952 Patent Act intended to remove inventive concept from the eligibility inquiry, yet the *Alice/Mayo* framework expressly includes it. *E.g.*, *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1351 (Fed. Cir. 2018) (Plager, J., concurring) ("A bigger puzzle regarding the 'inventive concept' concept: Those who are familiar with the history of the Patent Act, when in 1952 the law of patenting was given a major statutory overhaul, will be the most puzzled.").

As a result, the judicial exceptions and the *Alice/Mayo* framework have become completely divorced from the text of § 101 itself. This has created a nonsensical body of caselaw designed to interpret "abstract ideas" in the *Alice/Mayo* framework, rendering things such as cameras, sensors, and graphical user interface tools as "abstract ideas" without any regard as to whether such items are *new and useful* under the law. This has led to widespread confusion, with lower courts grappling to apply a subjective test.

A. The Text of § 101 Provides Sufficient Limits for Eligibility

Section 101 imposes a "threshold test" for patent eligibility by defining the subject matter eligible for a patent. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). It

[7] *Alice*, 573 U.S. at 221, 225 (internal quotations omitted).

specifies that a patent can be obtained for "*any new and useful* process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." § 101 (emphasis added). "Useful" simply means that the process, machine, etc. has some practical utility or purpose. *See Cross v. Iizuka*, 753 F.2d 1040, 1044 (Fed. Cir. 1985); *Grunenthal GMBH v. Alkem Lab'ys Ltd.*, 919 F.3d 1333, 1345 (Fed. Cir. 2019). The legislative history confirms what is apparent from the text of § 101 itself, namely, that Congress intended statutory subject matter to reach "'anything under the sun *that is made by man*,'" so long as all of the other requirements for patentability are met, such as novelty, enablement, written description and non-obviousness. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 & n.6 (1980) (emphasis added) (quoting legislative history).

This Court has long held that the text of § 101 inherently excludes from patent protection certain subject matter. *See, e.g.*, *Alice*, 573 U.S. at 217; *Chakrabarty*, 447 U.S. at 309; *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). For instance, Einstein could not patent that $E=mc^2$; nor could Newton have patented the law of gravity. Such mathematical formulas are by definition not "new and useful" (i.e., they are not practical applications), nor are they made by man, as they are something that has always been in existence.

Similarly, the Court has prohibited from patenting minerals/plants discovered in the earth. But such subject matter is not eligible because it is not "new and useful", nor is it made by man. Rather, this subject matter has pre-existed on our earth due to no role of mankind, and are "manifestations of . . . nature, free to all men and reserved exclusively to none." *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948).

And in its purest form, the law would not permit ideas in the human mind, i.e., an idea of itself that is untethered to any application. *Gottschalk*, 409 U.S. at 67 (citing *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874)). Ideas are not patentable because they have no practical application and therefore are not "new and useful" under § 101.

In short, the express wording of the statute, as confirmed by the legislative history, already excludes the grant of a patent on subject matter that constitutes "the basic tools of scientific and technological work." *Gottschalk*, 409 U.S. at 67.

Perhaps concerned with permitting patents on subject matter directed to these fundamental building blocks of scientific and technological work, the Court has gone beyond the examples of excluded subject matter set forth above and has proclaimed that there are broad categories of subject matter (i.e., all laws of nature, natural phenomena, and abstract ideas) that are not patent eligible. *Alice*, 573 U.S. at 217. These judicially created categorical exceptions are not written into the statute, and regardless, are not needed because the "new and useful" language of the statute already addresses this concern. Moreover, this Court has never considered whether these broad categorical exclusions to patent eligibility are consistent with the statute. Specifically, although the 1952 Patent Act's eligibility rule was intended to broadly permit all new and useful inventions that were made by man, one of the first cases to consider patent eligibility after the

Act was passed, *Gottschalk*, involved no analysis of the text of the statute or its legislative history to ascertain whether the statute preserved these broad judicial exceptions. *Gottschalk*, 409 U.S. at 67. The Court merely presumed the applicability of these judicial exceptions. *Id.* at 67. But there was no need to import these exceptions because the "new and useful" language of the statute already excludes the building blocks of human ingenuity.

B. The Judicially Created Exceptions and the *Alice/Mayo* Framework Appear Nowhere in the Statutory Text of § 101

The fundamental flaw with the three broad categorical judicial exceptions to patent eligibility (abstract ideas, laws of nature, and natural phenomena) is that they exclude subject matter as ineligible, regardless of the language of the § 101 statute. The *Alice/Mayo* framework compounds the problem by creating additional limitations on patent eligibility that are also not set forth in the statute. The effect is that the judge-made exceptions to eligibility have become completely untethered from the statute and swallowed the rule of eligibility itself.

Alice/Mayo establish a framework consisting of two steps, neither of which is found in the statutory text of § 101. The first step addresses whether the claims are "directed to" one of the judge-made categories: laws of nature, natural phenomena, or abstract ideas. *Alice*, 573 U.S. at 217. The Federal Circuit has stated that to determine what a patent is "directed to," courts must in turn, determine whether the "focus" of the claims is on one of the three ineligible concepts. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (internal quotations omitted). Predictably, determining the "focus" of the claims is subjective and unpredictable. *See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017) (Hughes, J., dissenting) (disagreeing with majority over whether characterizing the claims as directed to "'categorical data storage'" views the invention "at an unduly 'high level of abstraction'" (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016))).

The "focus" of the claims then morphed into something that considers the prior art. Specifically, the Federal Circuit has explained that step 1 of the *Alice/Mayo* framework involves considering the "focus of the claimed advance over the prior art." (Pet. App. 26a (internal quotations omitted)). This necessarily requires courts to consider substantive requirements for patentability under §§ 102-103, and determine whether the claims recite some "advance" over the prior art. To that end, the Federal Circuit has explained that claims that do not purport to "improve the functioning of the computer itself," *Enfish*, 822 F.3d at 1335 (internal quotations omitted), or "effect an improvement in any other technology or technical field," are not patentable under § 101. *Alice*, 573 U.S. at 225. In addition to being nowhere in § 101, what constitutes an improvement of a technological process is unworkable, and this case exemplifies that perfectly.

Specifically, in this case, the Federal Circuit stated that it must consider "'the focus of the claimed advance over the prior art'" at the first step of the *Alice/Mayo* framework. (Pet. App. 26a (internal quotations omitted)). It held that the focus of the claims is not a technological improvement: "[t]he focus is not on improving computers, as mere automation of manual processes using generic computers does not constitute such an improvement." (Pet. App. 26a-27a (internal quotations omitted)). And yet, five years earlier, a different panel of the Federal Circuit found that the *same claims* of the '411/'996 patents specifically improve the way computers operate because they solve a technical problem with the prior market grid-style interfaces with a technical solution. *IBG*, 757 F. App'x at 1007.

The second step of the *Alice*/*Mayo* framework is also not found in § 101. In this step, courts search for an "inventive concept." This has been described as a "baffling standard that Congress removed when it amended the Patent Act in 1952." *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333, 1371-73 (O'Malley, J., dissenting from denial of rehearing en banc) (discussing history and purpose of the 1952 Act). Judge Rich put it best: "[n]owhere in the entire act is there any reference to a requirement of 'invention' and the drafters did this deliberately in an effort to free the law and lawyers from bondage to that old and meaningless term."[8] And yet, the Court has instructed federal courts to read into § 101 the "inventive concept" requirement, which inevitably boils down to a court's gut assessment of whether a claimed invention *feels* inventive—the precise subjective inquiry that Congress rejected, for good reason.

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[8] Giles S. Rich, *Principles of Patentability*, 14 FED. CIRCUIT B.J. 135, 145 (2005).

Moreover, in searching for an "inventive concept," courts are supposed to determine if the claim limitations (both individually and as an ordered combination) are "well-understood, routine, [or] conventional." *Alice*, 573 U.S. at 225 (internal quotations omitted). However, issues about what was "conventional" or "well-understood" at the time of the invention are, again, questions reserved under § 103 for obviousness or § 102 for lack of novelty. *See generally* MPEP § 2173.04 (9th ed. Rev. 1, Nov. 2024) (PTO guidance on "[u]ndue" claim breadth). The text of § 101 is clear, and leaves no room for judicial improvisation. Worse, the *Alice/Mayo* framework has resulted in a patent eligibility standard that is completely subjective and unworkable, where even Federal Circuit judges cannot predict whether a given claim is eligible.[9]

C. Courts Cannot Engraft Their Own Exceptions onto the Statutory Text of § 101

This Court has consistently cautioned that courts "should not read into the patent laws limitations and conditions which the legislature has not expressed." *Chakrabarty*, 447 U.S. at 308 (internal quotations omitted). And this concern has recently carried over to other areas of law. For example, in *Henry Schein, Inc. v. Archer & White Sales, Inc.*, this Court

[9] Steve Brachmann & Eileen McDermott, *First Senate Hearing on 101 Underscores That 'There's More Work to Be Done,'* IP Watchdog (June 4, 2019, 10:23 PM), https://ipwatchdog.com/2019/06/04/first-senate-hearing-on-101-underscores-that-theres-more-work-to-be-done/id=110003/ ("'I've spent 22 years on the Federal Circuit and nine years since dealing with patent cases and I cannot predict in a given case whether eligibility will be found or not found,' Judge Michel said.").

considered the Federal Arbitration Act (FAA), and whether a judicially created "wholly groundless" exception is consistent with that Act. 586 U.S. 63, 70 (2019).

Under the FAA, parties can agree to have an arbitrator, rather than a court, resolve disputes arising out of a contract, including the threshold arbitrability question—that is, whether their arbitration agreement applies to a particular dispute. *Id.* at 67-68. Even when a contract delegates the arbitrability question to an arbitrator, some federal courts were nonetheless short-circuiting the process and deciding the arbitrability questions themselves, if, under the contract, the argument for arbitration was "wholly groundless." *Id.* at 68.

In a unanimous decision, this Court found that the "wholly groundless" exception was not consistent with the statutory text of the FAA. *Id.* It held "that the Act contains no 'wholly groundless' exception, and we may not engraft our own exceptions onto the statutory text." *Id.* at 70 (citation omitted).

The same rationale applies here. No court should be permitted to engraft onto the statutory text of § 101 the broad judicially created exceptions embodied in the *Alice/Mayo* framework that appear nowhere in the text. Indeed, the Court's concern that the basic building blocks of human ingenuity could be patented (which is already prohibited by the statute's text) does not give the "the Judiciary *carte blanche* to impose other limitations that are inconsistent with the text and the statute's purpose and design." *Bilski*, 561 U.S. at 603.

D. The ’411/’996 Patent Claims Are Eligible Under a Plain Reading of § 101

Under a plain reading of § 101, the claimed inventions of the ’411/’996 patents are patent eligible because they are “new and useful.” 35 U.S.C. § 101.[10] The inventions are “new and useful” because, unlike the conventional market grids, the user can trade more accurately because the price levels do not move every time there is a change in the market. *See supra* Statement of the Case, Section I. Indeed, a prior panel of the Federal Circuit found that these exact patent claims solved a technical problem with a technical solution. *IBG*, 757 F. App’x at 1007 (finding the patents “solve[d]” the problem of the user missing his price by “displaying market depth on a vertical or horizontal plane, which fluctuates logically up or down, left or right across the plane as the market fluctuates” (internal quotations omitted)).

E. Consideration of this Foundational Issue Is Urgently Needed

The Court’s review is necessary to resolve what Paul Michel, former Federal Circuit Chief Judge, has called the “chaos” of the patent-eligibility jurisprudence that is “devastating American business, including high tech . . . industries.”[11] Numerous Federal Circuit judges have echoed Judge Michel’s concerns.

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[10] The ’411/’996 patents are eligible under the *Alice/Mayo* framework as well.

[11] Steve Brachmann, *Judge Paul Michel Presents Supplemental Testimony on PTAB Reforms to the House IP Subcommittee,* IP Watchdog (Sept. 19, 2017, 11:15 AM), https://ipwatchdog.com/2017/09/19/judge-paul-michel-presents-supplemental-testimony-ptab-reforms/id=88047/ (internal quotations omitted).

Judge Linn has observed that "the abstract idea exception is almost impossible to apply consistently and coherently" and that the *Alice* standard "is indeterminate and often leads to arbitrary results." *Smart Sys. Innovations, LLC v. Chicago Transit Auth.,* 873 F.3d 1364, 1377 (Fed. Cir. 2017) (Linn, J., dissenting in part and concurring in part). Chief Judge Moore concluded that "[a]s the nation's lone patent court, we are at a loss as to how to uniformly apply § 101." *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 977 F.3d 1379, 1382 (Fed. Cir. 2020) (Moore, J., concurring). Judge Lourie determined that "the law needs clarification by higher authority" than the Federal Circuit. *Aatrix Software, Inc. v. Green Shades Software, Inc.,* 890 F.3d 1354, 1360 (Fed. Cir. 2018) (Lourie, J., concurring in the denial of rehearing en banc); *see also Berkheimer v. HP Inc.,* 890 F.3d 1369, 1376 (Fed. Cir. 2018) (Lourie, J., concurring in the denial of rehearing en banc) ("Resolution of patent-eligibility issues requires higher intervention . . . .").

The panel decision below illustrates this point. It found that the claims of the '411/'996 patents do not recite an improvement to a technological process. (Pet. App. 26a-27a). But five years earlier, a different panel of the Federal Circuit found that the *same claims* of the '411/'996 patents recite a specific improvement to the way computers operate because they solve a technical problem with a technical solution. *IBG*, 757 F. App'x at 1007. The Federal Circuit's confusion "despite extensive efforts to gain clarity with the support of diverse litigators specializing in patent law and related litigation" is "evidence of the vacuity of the *Alice* standard"[12] and the "abstract idea" category itself.

The PTO has likewise observed that applying the *Alice/Mayo* framework "in a consistent manner has proven to be difficult, and has caused uncertainty in this area of the law." 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019). Basically nobody, it concluded, can "reliably and predictably determine what subject matter is patent-eligible."[13] "The *Alice* Court alleged that the PTO and courts were to tread carefully so as not to 'swallow all of patent law' with the § 101 prohibitions against patenting of abstract ideas . . . but this is exactly what is happening."[14]

All this has left U.S. businesses at a severe disadvantage. This year, the Congressional Research Service explained that "[i]nnovation in emerging technology areas may face unique challenges because of the restricted scope of patent-eligible subject matter."[15] Leading scholars question "whether the U.S. is surrendering its long-held position as the world leader in promoting and securing new technological

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[12] Richard Gruner, *Lost in Patent Wonderland with Alice: Finding the Way Out*, 72 SYRACUSE L. REV. 1053, 1074 (2022).

[13] *Id.*

[14] Kevin Madigan & Adam Mossoff, *Turning Gold into Lead: How Patent Eligibility Doctrine Is Undermining U.S. Leadership in Innovation*, 24 GEO. MASON L. REV. 939, 952 (2017).

[15] CONG. RSCH. SERV., PATENT-ELIGIBLE SUBJECT MATTER REFORM: AN OVERVIEW (2024), https://crsreports.congress.gov/product/pdf/IF/IF12563.

innovation."[16] They warn that, absent intervention, the U.S. will be overtaken by other countries "as the forerunners of innovation, especially in the research-intensive sectors of the innovation economy."[17]

III. THIS COURT'S SUPERVISORY AUTHORITY IS NEEDED TO CORRECT THE FEDERAL CIRCUIT'S IMPROPER (1) APPLICATION OF RULE 56 TO PATENT CASES, AND (2) PRACTICE OF DECIDING ISSUES THAT WERE NEVER RAISED ON APPEAL

A. The Federal Circuit Routinely (and Wrongly) Affirms Ineligibility at Summary Judgment Despite Substantial Evidence of Disputed Facts

Patent eligibility under 35 U.S.C. § 101 involves factual issues in connection with the *Alice/Mayo* framework. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). For instance, Step 2 often involves assessing whether the elements of the claim are well-understood, routine, or conventional in the field. *Berkheimer*, 881 F.3d at 1368. It is improper to decide such factual questions at summary judgment.

The Federal Rules provide that "[t]he court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact." Fed. R. Civ. P. 56(a). Courts must view the facts with "all justifiable inferences" drawn in favor of the

[16] Madigan & Mossoff, *supra* note 19, at 941.

[17] *Id.*

nonmoving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

The Federal Circuit's decision below was flawed because it ignored materially disputed facts at the summary judgment stage. (Pet. App. 27a). Specifically, the Federal Circuit ignored over 800 pages of evidence directed to step two of *Alice*. (CAFC App. 66492-67335). This was a "mass of evidence, including expert testimony, that shows the claims were *not* well-understood, routine and conventional," and which prevented "summary judgment." (Blue Br. at 47–48). Without addressing this evidence, the court found, in a single paragraph, that the patents failed step two of *Alice*. (Pet. App. 27a). This was improper.

Despite well-established standards governing summary judgment, the Federal Circuit has repeatedly ignored them in the context of patent eligibility. *Compare* Principal Br. of Pl.-Appellant at 66–67, *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285 (Fed. Cir. 2020) (No. 2018-1763), 2018 WL 3304247, at *66–67 ("Nowhere in its step two opinion does the court address any of th[e] underlying evidence, which, at a minimum, raises disputed facts . . . ."), *and Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1318–19 (Fed. Cir. 2020) (Moore, J., dissenting) ("The majority offers no explanation for why this patentee is not entitled to step two consideration, especially at this, the summary judgment stage."), *with id.* at 1299 (majority finding "no dispute of any material fact"); *compare* Principal Br. of Pl.-Appellant Realtime Adaptive Streaming LLC at 56–57, *Realtime Adaptive Streaming LLC v. Sling TV, L.L.C.*, 2023 WL 3373583 (Fed. Cir. May 11, 2023) (No. 2021-2268), 2022 WL 1617680, at *56–57 ("The district court was not empowered to weigh disputed evidence on summary judgment . . . ."), *with Realtime Adaptive Streaming LLC v. Sling TV, L.L.C.*, No. 2021-2268, 2023 WL 3373583, at *1 (Fed. Cir. May 11, 2023) (summarily affirming under Rule 36); *see also* Pet. for Writ of Cert. at 19–20, *Worlds Inc. v. Activision Blizzard Inc.*, 143 S. Ct. 110 (2022) (No. 21-1554), 2022 WL 2119487, at *19–20 ("[D]istrict courts regularly and improperly find patents ineligible at the summary judgment stage . . . ."); Pet. for Writ of Cert. at i, *Island Intellectual Property LLC v. TD Ameritrade, Inc.*, No. 24-461 (U.S. 2024), 2024 WL 4580013 (noting "a dangerous trend in patent cases whereby district courts grant summary judgment while ignoring factual disputes . . . .").

This Court should end this approach. This is to ensure that the parties are afforded "a full trial where there is a bona fide dispute of facts between the[m]." *Devex Corp. v. Houdaille Indus., Inc.*, 382 F.2d 17, 21 (7th Cir. 1967) (internal quotations omitted). On summary judgment, a court cannot make credibility determinations, weigh evidence, or decide which inferences to draw from the facts. *Anderson*, 477 U.S. at 255. These are jobs for a factfinder. *Id.*

A plaintiff seeking damages is entitled to a trial on all factual issues. *See Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 504 (1959); *Dairy Queen, Inc. v. Wood*, 369 U.S. 469, 473 n.8 (1962). And when a patent owner seeks damages for infringement, the patent owner is entitled to a trial on the factual issues underlying validity. *In re Lockwood*, 50 F.3d 966, 976 (Fed. Cir.), *vacated sub nom. Am. Airlines, Inc. v. Lockwood*, 515 U.S. 1182 (1995). This Court should grant the Petition in order to afford these protections here.

B. The Federal Circuit Has Routinely (and Wrongly) Decided Issues that Were Never Argued or Briefed by the Parties on Appeal

Both this Court and the Federal Circuit have declared it improper for appellate courts to decide issues that neither party raised on appeal and that the lower court never passed on below. *Singleton v. Wulff*, 428 U.S. 106, 120 (1976); *Pat. Rts. Prot. Grp., LLC v. Video Gaming Techs., Inc.*, 603 F.3d 1364, 1368 (Fed. Cir. 2010); *Philip Morris Prods. S.A. v. Int'l Trade Comm'n*, 63 F.4th 1328, 1348 (Fed. Cir. 2023).

Here, after ruling in TT's favor that TT could obtain damages based on foreign conduct for infringement under 35 U.S.C. § 271(a), the Federal Circuit raised and decided the issue of causation (i.e., whether there was a "casual connection" between infringement under § 271(a) and the "foreign conduct for which proposal seeks royalty damages." (Pet. App. 52a). This issue was never argued by the parties or decided by the district court below. (CAFC App. 18-20). By deciding it for the first time on appeal, the Federal Circuit denied TT's due process rights to be heard.

The problem of appellate courts making rulings on issues not before them is widespread. *See* Letter from the American Academy of Appellate Lawyers to Hon. Michael Chagares, Chair Federal Advisory Committee on Appellate Rules (April 26, 2019), *available at* https://www.uscourts.gov/sites/default/files/october_2019_agenda_book_-_final_0.pdf (stating that the "vast majority of members . . . indicated they have received decisions based on issues not presented in the briefs," and "the opportunity to be heard before decisions are made is fundamental to the American adversary system of justice and due process of law"); *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 966 F.3d 1347, 1365-66 (Fed. Cir. 2020) (O'Malley, J., dissenting) (noting "growing belief among appellate lawyers that Courts of Appeals have shown an increasing tendency to decide questions on grounds that were neither argued before the district court nor briefed on appeal"); *CardioNet, LLC v. InfoBionic, Inc*, 955 F.3d 1358, 1374 (Fed. Cir. 2020) (Dyk, J., dissenting in part "because the majority addresses issues never argued by the parties"); *Honeywell Int'l Inc. v. 3G Licensing, S.A.*, No. 2023-1354, 2025 WL 16397, at *8 (Fed. Cir. Jan. 2, 2025) (Stoll, J., dissenting because majority was improperly "making arguments for the parties that they did not make and then deciding those arguments").

Something "must be done" in order to "mitigate the negative consequences associated with sua sponte decisions." Ronald J. Offenkrantz & Aaron S. Lichter, *Sua Sponte Actions in the Appellate Courts: The "Gorilla Rule" Revisited*, 17 J. APP. PRAC. & PROCESS 113, 134 (2016).

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

JANUARY 2, 2025

MICHAEL D. GANNON
Counsel of Record
BAKER & HOSTETLER LLP
One North Wacker Drive
Suite 3700
Chicago, Illinois 60606
(312) 416-6294
mgannon@bakerlaw.com

Counsel for Petitioner
Harris Brumfield, Trustee
for Ascent Trust

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APPENDIX A – OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, FILED MARCH 27, 2024

United States Court of Appeals for the Federal Circuit

HARRIS BRUMFIELD, TRUSTEE FOR ASCENT TRUST,
Plaintiff-Appellant

v.

IBG LLC, INTERACTIVE BROKERS LLC,
Defendants-Appellees

2022-1630

Appeal from the United States District Court for the Northern District of Illinois in No. 1:10-cv-00715, Judge Virginia M. Kendall.

Decided: March 27, 2024

MICHAEL DAVID GANNON, Baker & Hostetler LLP, Chicago, IL, argued for plaintiff-appellant. Also represented by JENNIFER KURCZ, LEIF R. SIGMOND, JR.; ALAINA LAKAWICZ, Philadelphia, PA.

STEFFEN NATHANAEL JOHNSON, Wilson,

Sonsini, Goodrich & Rosati, PC, Washington, DC, argued for defendants-appellees. Also represented by KELSEY CURTIS, GRANVILLE CLAYTON KAUFMAN, NATALIE J. MORGAN, San Diego, CA; MICHAEL BRETT LEVIN, Palo Alto, CA; MICHAEL S. SOMMER, New York, NY; NAOYA SON, Los Angeles, CA.

Before PROST, TARANTO, and HUGHES, *Circuit Judges*.

TARANTO, *Circuit Judge*.

Trading Technologies International, Inc. (TT)—whose successor is the plaintiff-appellant named in the caption—brought this action against IBG LLC and its subsidiary Interactive Brokers LLC (together, IBG) in 2010 in the Northern District of Illinois, alleging infringement of several TT-owned patents.[1] Four of TT's patents are at issue in this appeal: U.S. Patent Nos. 6,766,304 (issued July 20, 2004); 6,772,132 (issued August 3, 2004); 7,676,411 (issued March 9, 2010); and 7,813,996 (issued October 12, 2010). The district court held the asserted claims of the '411 and '996 patents invalid,

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[1] Plaintiff-Appellant Harris Brumfield was the primary investor in and majority shareholder of TT, which was sold in December 2021, with the rights to the patents here at issue assigned to a trust, Ascent Trust. Mr. Brumfield, as the sole trustee for Ascent Trust, was then substituted for TT as the plaintiff in this action. Like the parties and the district court, we refer throughout to plaintiff-appellant as Trading Technologies (TT).

and a jury found the asserted claims of the ’304 and ’132 patents infringed (and not proved invalid for obviousness) and awarded $6,610,985 in damages, resulting in the final judgment now before us.

Only TT, not IBG, appeals. TT challenges three rulings of the district court. First, on cross-motions for summary judgment, the district court held that the asserted claims of the ’411 and ’996 patents were invalid under 35 U.S.C. § 101, while rejecting the § 101 challenge to the asserted claims of the ’304 and ’132 patents (with the resulting trial limited to a subset of such claims). *Trading Technologies International, Inc. v. IBG, LLC*, No. 10 C 715, 2021 WL 2473809, at *5, *7 (N.D. Ill. June 17, 2021) (*101 Opinion*). Second, the district court, acting under Federal Rule of Evidence 702, excluded one of the damages theories, concerning foreign activities, proposed by TT’s damages expert. *Trading Technologies International, Inc. v. IBG LLC*, No. 10 C 715, 2021 WL 5038754, at *2 (N.D. Ill. July 23, 2021) (*FRE 702 Opinion*). Third, the district court denied TT’s post-verdict motion for a new trial on damages, a motion in which TT alleged that IBG had misrepresented, by statement or omission, how it was calculating the damages figures it presented to the jury. *Brumfield, Trustee for Ascent Trust v. IB LLC*, 586 F. Supp. 3d 827, 830–31 (N.D. Ill. 2022) (*Post-Trial Opinion*).

We reject TT’s challenges. We therefore affirm.

I

A

The four patents before us have materially the same specification: The application that issued as the ’132 patent is the ancestor of the other three patents (so we cite only the specification of the ’132 patent). The specification describes assertedly improved graphical user interfaces for commodity trading and methods for placing trade orders using those interfaces. ’132 patent, col. 3, lines 11–20. The specification asserts that the improved interfaces allow traders to place orders “quickly and efficiently” in volatile markets where speed is important. *Id.*, col. 3, line 10; *see id.*, col. 2, lines 1–41.

The claims of the patents differ somewhat, including in a respect that plays a role in the analysis of patent eligibility under § 101 as that issue is presented to us. The asserted claims of the two patents from 2004 involve an interface that, in the words of the ’304 patent, has a “common *static* price axis” along which (changing) bids and asks are displayed. ’304 patent, col. 12, lines 41–54 (emphasis added). The language of the asserted claims of the ’132 patent is similar, requiring a “dynamic display of a plurality of bids and a plurality of asks” in a commodity market, “the dynamic display being aligned with a *static* display of prices corresponding thereto, wherein the static display of prices does *not* move in response to a change in the inside market,” ’132 patent, col. 12, lines 8–15 (emphases added), where “the ‘inside market’ is the highest bid price and the lowest ask price,” *id.*, col. 4, lines 58–60.

The two patents from 2010 are different. The '411 patent, in its claims, requires simply a "price axis," with no requirement that it be static. '411 patent, col. 12, lines 30–39. The same is true, based on claim construction, for the '996 patent. Although that patent's claims use the phrase "static price axis," the district court, at TT's urging, construed that phrase in the '996 patent to include price axes that can be moved in response to "a re-centering or re-positioning" command, which can be issued automatically rather than by the user. *Trading Technologies International, Inc. v. IBG LLC*, No. 10 C 715, 2019 WL 6609428, at *2–4 (N.D. Ill. Dec. 5, 2019). In doing so, the district court noted, based on the '996 patent's prosecution history, that "'static' in the '996 [p]atent was to be understood in a broader sense than the '132 and '304 [p]atents." *Id.* at *3; *see* TT's Opening Br. at 5–6.

The following claims are representative for purposes of the present appeal—two claims to a method, two to a computer readable medium hosting code for execution:

> '**304 patent, claim 27.** A computer readable medium having program code recorded thereon for execution on a computer for displaying market information relating to and facilitating trading of a commodity being traded in an electronic exchange having an inside market with a highest bid price and a lowest ask price on a graphical

user interface, the program code causing a machine to perform the following steps:

dynamically displaying a first indicator in one of a plurality of locations in a bid display region, each location in the bid display region corresponding to a price level along a common static price axis, the first indicator representing quantity associated with at least one order to buy the commodity at the highest bid price currently available in the market;

dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a price level along the common static price axis, the second indicator representing quantity associated with at least one order to sell the commodity at the lowest ask price currently available in the market;

displaying the bid and ask display regions in relation to fixed price levels positioned along the common static price axis such that when the inside market changes, the price levels along the common static price axis do not move and at least one of the first and second indicators moves in the bid or ask display regions relative to the common static price axis;

displaying an order entry region comprising a plurality of locations for receiving commands to send trade orders, each location corresponding to a price level along the common static price axis; and

in response to a selection of a particular location of the order entry region by a single action of a user input device, setting a plurality of parameters for a trade order relating to the commodity and sending the trade order to the electronic exchange.

'304 patent, col. 14, line 47, through col. 15, line 17.

'132 patent, claim 1. A method for placing a trade order for a commodity on an electronic exchange having an inside market with a highest bid price and a lowest ask price, using a graphical user interface and a user input device, said method comprising:

setting a preset parameter for the trade order[;]

displaying market depth of the commodity, through a dynamic display

> of a plurality of bids and a plurality of asks in the market for the commodity, including at least a portion of the bid and ask quantities of the commodity, the dynamic display being aligned with a static display of prices corresponding thereto, wherein the static display of prices does not move in response to a change in the inside market;
>
> displaying an order entry region aligned with the static display prices comprising a plurality of areas for receiving commands from the user input devices to send trade orders, each area corresponding to a price of the static display of prices; and
>
> selecting a particular area in the order entry region through single action of the user input device with a pointer of the user input device positioned over the particular area to set a plurality of additional parameters for the trade order and send the trade order to the electronic exchange.

'132 patent, col. 12, lines 2–26.

> **'411 patent, claim 1**. A method of displaying market information relating to and facilitating trading of a commodity being traded on an electronic exchange, the method

comprising:

receiving, by a computing device, market information for a commodity from an electronic exchange, the market information comprising an inside market with a current highest bid price and a current lowest ask price;

displaying, via the computing device, a bid display region comprising a plurality of graphical locations, each graphical location in the bid display region corresponding to a different price level of a plurality of price levels along a price axis;

displaying, via the computing device, an ask display region comprising a plurality of graphical locations, each graphical location in the ask display region corresponding to a different price level of the plurality of price levels along the price axis;

dynamically displaying, via the computing device, a first indicator representing quantity associated with at least one trade order to buy the commodity at the current highest bid price in a first graphical location of the plurality of graphical locations in the bid display region, the first graphical location in the bid display region corresponding to a price level associated with the current highest bid price;

upon receipt of market information comprising a new highest bid price, moving the first indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the bid display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new highest bid price, wherein the second graphical location is different from the first graphical location in the bid display region;

dynamically displaying, via the computing device, a second indicator representing quantity associated with at least one trade order to sell the commodity at the current lowest ask price in a first graphical location of the plurality of graphical locations in the ask display region, the first graphical location in the ask display region corresponding to a price level associated with the current lowest ask price;

upon receipt of market information comprising a new lowest ask price, moving the second indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the ask display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new lowest ask price, wherein the second graphical location is different from the first graphical location in the ask display region;

displaying, via the computing device, an order entry region comprising a plurality of graphical areas for receiving single action commands to set trade order prices and send trade orders, each graphical area corresponding to a different price level along the price axis; and

selecting a particular graphical area in the order entry region through a single action of the user input device to both set a price for the trade order and send the trade order having a default quantity to the electronic exchange.

’411 patent, col. 12, line 23, through col. 13, line 16.

’996 patent, claim 1. A computer readable medium having program code recorded thereon for execution on a computer having a graphical user interface and a user input device, the program code causing a machine to perform the following method steps:

receiving market information for a commodity from an electronic exchange, the market information comprising an inside market with a current highest bid price and a current lowest ask price;

receiving an input from a user that designates a default quantity to be used for a plurality of trade orders;

dynamically displaying a first indicator in one of a plurality of locations in a bid display region, each location in the bid display region corresponding to a price level along a static price axis, the first indicator representing quantity associated with at least one order to buy the commodity at the current highest bid price;

dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a price level along the static price axis, the second indicator representing quantity associated with at least one order to sell the commodity at the current lowest ask price;

displaying the bid and ask display regions in relation to a plurality of price levels arranged along the static price axis such that when the inside market changes, the price levels along the static price axis do not change positions and at least one of the first and second indicators moves in the bid or ask display regions relative to the static price axis;

> displaying an order entry region aligned with the static price axis comprising a plurality of areas for receiving commands from the user input device to send trade orders, each area corresponding to a price level of the static price axis; and
>
> receiving a plurality of commands from a user, each command sending a trade order to the electronic exchange, each trade order having an order quantity based on the default quantity without the user designating the default quantity between commands, wherein each command results from selecting a particular area in the order entry region corresponding to a desired price level as part of a single action of the user input device with a pointer of the user input device positioned over the particular area to both set an order price parameter for the trade order based on the desired price level and send the trade order to the electronic exchange.

’996 patent, col. 11, line 45, through col. 12, line 24.

B

TT sued IBG for infringement of the four patents we have identified, asserting various claims—some claiming a method, some a system, and some “a computer readable medium having program code recorded thereon for execution on a computer” (*e.g.*, ’304 patent, claim 27, quoted *supra*). As relevant for present purposes, the instrument of the alleged infringement was the BookTrader module (trading tool) that is part of IBG's Trader Workstation Platform (TWS), software that traders load onto their computers and use for buying and selling on exchanges, such as commodities exchanges. IBG released TWS BookTrader a few months before the '304 patent issued in July 2004 (the '132 patent issued the next month and the '411 and '996 patents in 2010). TT alleged that IBG infringed the '304 and '132 patents via TWS BookTrader starting as soon as those patents issued, and those allegations went to trial. The BookTrader tool also was part of a different IBG product called WebTrader (for use on the world wide web), but WebTrader was involved only in the claims that IBG infringed claims of the '411 and '996 patents—which, as will be described, were held invalid.

We describe the three rulings of the district court that are at issue on appeal, though not in chronological order.

1

In June 2021, on cross-motions for summary judgment on the § 101 eligibility of the four patents' asserted claims, the district court conducted the two-step analysis described in *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), and ruled partly for TT and partly for IBG. *101 Opinion*, 2021 WL 2473809, at *1, *6–7. The court first rejected IBG's § 101 challenge to the '304 and '132 patents' claims. *Id.* at *5. The court discussed our nonprecedential decision in *Trading Technologies International, Inc. v. CQG, Inc.*, in which we upheld claims of the

’304 and ’132 patents against a § 101 challenge (asserted by CQG), reasoning that the claims are “‘directed to a specific implementation of a solution to a problem in the software arts.’” 675 F. App’x 1001, 1006 (Fed. Cir. 2017) (*CQG*) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016)). The district court saw no persuasive reason to draw a different conclusion here, though the record is somewhat different. *101 Opinion*, 2021 WL 2473809, at *5. IBG does not appeal the district court’s rejection of its § 101 challenge to the asserted claims of the ’304 and ’132 patents.

Moving to the ’411 and ’996 patents, the district court held the asserted claims of those patents to be invalid because they claim subject matter that is ineligible for patenting under § 101. *Id.* at *5–7. The court stressed that those claims are broader than those of the ’304 and ’132 patents (in that they do not preclude automatic movement of the price axis) and reasoned that TT had failed to explain how these broader claims provide a specific solution to the problem solved by the ’304 and ’132 patents. *Id.* at *6. Given the difference, the court concluded that the ’411 and ’996 patents’ claims amount to nothing more than “the abstract idea of placing orders on an electronic exchange.” *101 Opinion*, 2021 WL 2473809, at *6. In so ruling, the court pointed to our non-precedential decision in another case between TT and IBG, *Trading Technologies International, Inc. v. IBG LLC*, 767 F. App’x 1006 (Fed. Cir. 2019), in which we agreed with a § 101 challenge to claims of U.S. Patent No. 7,693,768, which is a descendant of the ’132 patent and whose claims call simply for a price axis, not a static price axis.

The court also rejected TT's contention that another nonprecedential decision of this court, *IBG LLC v. Trading Technologies International, Inc.*, 757 F. App'x 1004 (Fed. Cir. 2019) (*IBG I*), justified rejecting the § 101 challenge here. In *IBG I*, we held that the four patents at issue in the present case did not qualify for Covered Business Method (CBM) review under § 18 of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 329–31 (2011) (AIA), so we did not reach the § 101 merits. *IBG I*, 757 F. App'x at 1007–08. We reasoned that our earlier holding of eligibility as to the '304 and '132 patents in *CQG* implied that those patents did not qualify for CBM review. *Id.* We then stated, with no elaboration, that we saw "no meaningful difference" on the CBM-qualification issue for the '411 and '996 patents, though there was no predicate decision of eligibility for those patents, and that we were not reaching the § 101 issue. *Id.* at 1008. In the present case, the district court concluded that, although "the inquiries under CBM review and § 101 eligibility are related," the CBM determination did "not dictate a finding of § 101 eligibility here." *101 Opinion*, 2021 WL 2473809, at *7.

TT's case on infringement of the '304 and '132 patents eventually went to trial, and that trial involved only method and "computer readable medium" (CRM) claims: five method claims (1, 12, 15, 17, and 22) and one CRM claim (27) of the '304 patent, and three method claims (1, 7, and 25) and two CRM claims (8 and 51) of the ’132 patent. Earlier in the case, TT had asserted a larger set of claims, including some system claims, but we need not consider any system claims in addressing the two issues presented on appeal concerning the ’304 and ’132 patents because TT does not seek to revive any system claims. *See* TT’s Opening Br. at 48, 66 (seeking new trial only on damages for these patents).

2

In 2020, before the § 101 ruling, IBG moved to exclude certain proposed testimony of TT’s damages expert, Catherine Lawton, under Federal Rule of Evidence 702. In July 2021, not long before the trial, the district court ruled on the motion. The court allowed much of Ms. Lawton’s proposed testimony, but it excluded proposed testimony advancing one particular basis for Ms. Lawton’s proposed amount of damages, a basis tied to activities of foreign users of TWS BookTrader. *FRE 702 Opinion*, 2021 WL 5038754, at *2.

Before describing that ruling, we describe another ruling (issued during briefing on the Rule 702 motion and ultimately relied on in the *FRE 702 Opinion*) on a related IBG motion—in which IBG sought summary judgment of no direct or indirect infringement of the asserted claims (of all four patents, at the time) based on activities of foreign users of the TWS BookTrader trading tool.[2] *Trading*

[2] When IBG moved for partial summary judgment

Technologies International, Inc. v. IBG LLC, No. 10 C 715, 2020 WL 7408745 (N.D. Ill. Dec. 17, 2020) (*Partial SJ Opinion*). The district court, in the *Partial SJ Opinion*, explained what it deemed a materially undisputed fact about foreign users of TWS BookTrader: "a user located in a different country downloads the TWS software platform to her computer located in that country and uses a mouse and a monitor located in that country to place orders and send them to the exchange" where the trades occur. *Id.* at *1. The district court then ruled on whether there was a triable issue of fact as to whether IBG, or its foreign users through their activities involving TWS BookTrader, met the domestic-act requirement of 35 U.S.C. § 271(a), producing direct or indirect infringement. At the time, TT was asserting method claims, system claims, and CRM claims.

In answering that question, the court treated together the method and system claims of the patents, as to which IBG's motion was unopposed by TT, and granted "summary judgment related to infringement of the method and system claims caused by the activities of foreign users." *Id.* at *2. But the court denied the motion with respect to the CRM claims of the patents. *See* '304 patent, col. 14, lines 47–48 (claim 27; all other claims are method claims); '132 patent, col. 12, lines 52–53 (claims 8–13, 30–39, 51; all other claims are either method or system claims). Based on the allegations about

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regarding foreign users, the WebTrader product, involved in the allegations of infringement of the '411 and '996 patents, was still in the case, but IBG's motion addressed only the TWS product.

foreign users' downloading of TWS from U.S. servers and entry into a "Customer Agreement," the court concluded that the parties genuinely disputed facts that might establish domestic infringement—*i.e.*, concerning whether IBG was selling (or offering to sell) its BookTrader product to foreign users and, if so, whether it was doing so domestically. *Id.* at *2–4. That summary judgment ruling has not been appealed.

The district court relied on that ruling in addressing IBG's damages-evidence motion. Ms. Lawton proposed as damages not an award of lost profits suffered by TT, but a reasonable royalty for IBG's infringing activities, J.A. 87413—based on a hypothetical negotiation on July 20, 2004, the day the '304 patent issued (to be followed two weeks later by issuance of the '132 patent), J.A. 87658. Specifically, she proposed a royalty structured as a per-user, per-month royalty—for each month, starting from the July 20, 2004 issuance of the earliest patent, TT would receive a fixed amount per active user of IBG's accused product. J.A. 87414–15, 87942, 87963. In her proposed damages calculation, Ms. Lawton included *foreign* active users of TWS, identifying four bases (of different scope) for such inclusion. *FRE 702 Opinion*, 2021 WL 5038754, at *2; J.A. 87843–44.

The district court allowed the proposed testimony as to two of the asserted bases: "making a copy of the accused products via a server located in the United States"; and "sale of the accused products in the United States via the user's entry into a

Customer Agreement." *FRE 702 Opinion*, 2021 WL 5038754, at *2. The court explained that it had already concluded, in its *Partial SJ Opinion*, that those two bases, if the allegations of fact were proved, could establish domestic infringement. *FRE 702 Opinion*, 2021 WL 5038754, at *2. The district court disallowed the two other asserted bases, one that is not at issue on appeal and one that is. *Id.* at *2–3. [3]

The currently disputed disallowed basis was, in Ms. Lawton's words, IBG's "'making' the accused products in the United States with foreign damages." J.A. 87844, 87851 (capitalization removed); *see FRE 702 Opinion*, 2021 WL 5038754, at *2. Regarding the "making the accused product" phrase, Ms. Lawton stated that the TWS software was "designed and made" and "developed" in the United States, J.A. 87851–52, having previously stated that "BookTrader is the Accused Product and is included in every version of TWS and WebTrader," J.A. 87793. Regarding the "foreign damages" phrase, she opined, as relevant here, that TT should receive compensation (damages) for the foreign users' use of copies of TWS. J.A. 87851–52. She proposed inclusion, in the per-user, per-month royalty, of all foreign active users in a given month (from July 20,

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[3] The disallowed basis that is not on appeal involved foreign users' "use of the accused products in the United States." *FRE 702 Opinion*, 2021 WL 5038754, at *2. The district court disallowed that basis for want of evidence that "*foreign* users" engaged in such use. *Id.* at *3 (emphasis added). TT does not challenge that ruling on appeal.

2004), with no refinement to narrow the pool to any identified subgroups of such foreign active users, J.A. 87837, because, she opined, IBG deliberately markets the TWS software worldwide. J.A. 87853–54. She rested that proposal on her "understand[ing] that TT is entitled to world-wide patent damages for harm that is the foreseeable and but-for result of infringement in the United States." J.A. 87851.

IBG moved to exclude that damages basis as impermissibly resting on an incorrect view of the governing law. IBG argued that "Ms. Lawton's worldwide damages opinion improperly includes foreign users with no link to any alleged US infringing activities" (capitalization removed), invoking the principle that "'[i]t is axiomatic that U.S. patent law does not operate extraterritorially to prohibit patent infringement abroad[,]' and it 'do[es] not thereby provide compensation for a defendant's foreign exploitation of a patented invention, which is not infringement at all.'" J.A. 85143 (second and third alteration in original) (quoting *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*, 711 F.3d 1348, 1370–71 (Fed. Cir. 2013)). Ms. Lawton's reliance on a foreseeability-plus-but-for-cause standard, IBG contended, was contrary to law. J.A. 85146, 85148. TT responded that the proposal was legally permissible based on *WesternGeco LLC v. ION Geophysical Corp.*, 585 U.S. 407 (2018), though *WesternGeco* involved lost-profits, not reasonable-royalty, damages, and involved infringement under 35 U.S.C.§ 271(f)(2), not under § 271(a). J.A. 88406–11; *see* J.A. 87851 (Ms. Lawton's expert report invoking *WesternGeco*). TT, like Ms.

Lawton, focused on IBG's domestic designing and programming of TWS BookTrader when discussing the "making" identified in this basis for damages, and on the assertion that IBG "markets and distributes/licenses its BookTrader tool to a worldwide audience." J.A. 88411–12.

The district court agreed with IBG, excluding the evidence as "premised on a misapplication of controlling law." *FRE 702 Opinion*, 2021 WL 5038754, at *2. The district court understood *WesternGeco* to hold that "a patent owner claiming infringement under 35 U.S.C. § 271(f)(2) may recover lost foreign profits proximately caused by domestic infringement." *Id.* (quoting 585 U.S. at 417). The district court reasoned, however, that it was unclear what *WesternGeco* implies about "the present case involving infringement under § 271(a) and reasonable royalty damages." *Id.* The district court therefore concluded that the controlling law for this case continued to be found in *Power Integrations*, which involved damages for § 271(a) infringement (though, like *WesternGeco*, it involved an issue about lost profits, not reasonable royalties). *Id.* (citing *Power Integrations*, 711 F.3d at 1371, for the proposition that "[g]enerally, even after establishing one or more acts of infringement in the United States, a patentee may not recover damages for worldwide sales of the patented invention on the theory that 'those foreign sales were the direct foreseeable result of [the infringer's] domestic infringement'" (second alteration in original)).

The "making the accused product" basis of damages was therefore excluded at trial, but TT was permitted to present its evidence based on the making of a copy for the foreign user via a domestic server and the making of a domestic sale via a Customer Agreement between the foreign user and IBG. The jury found infringement, rejected the remaining validity challenges, and awarded damages of $6,610,985. In its post-trial opinion, the district court reiterated its exclusion of the disputed damages basis. *Post-Trial Opinion*, 586 F. Supp. 3d at 839–40.

3

The third ruling before us on appeal is the post-trial ruling concerning the damages evidence and argument submitted by IBG (not TT). At trial in 2021, TT argued that IBG had directly infringed, or induced others to infringe, method claims and CRM claims of the ’132 and ’304 patents based on the TWS BookTrader trading tool. Of significance for purposes of the third ruling on appeal to us, not all users of TWS use the BookTrader feature, which was the only accused feature of TWS. For present purposes, we accept that the jury award of $6,610,985 corresponds to the total put forth by IBG at a royalty rate measured by domestic usage, rather than global monthly users: 10 cents per commodity-futures unit sold by users in the United States via the accused BookTrader module only. By contrast, TT’s global monthly user royalty, which included all TWS users regardless of whether they used BookTrader, summed to $962,440,850 over the period of infringement.

After the trial, TT moved for a new trial on damages and post-trial damages discovery under Federal Rules of Civil Procedure 59(a)(1)(A) and 60(b)(3), alleging that IBG had withheld information during discovery and presented false testimony at trial on how, in IBG's own calculation of damages, it was counting units sold via BookTrader. J.A. 93233; *Post-Trial Opinion*, 586 F. Supp. 3d at 833–34. TT argued essentially that IBG was undercounting the number of units traded using BookTrader by not counting units traded using a combination of BookTrader and another TWS feature, despite representing otherwise to TT and to the jury. J.A. 93233–34, 93239, 103633–34. The district court denied the motion.

The district court stated that such misrepresentation, if it had occurred, could form the basis for a new trial under either Rule 59 or Rule 60. *Post-Trial Opinion*, 586 F. Supp. 3d at 833–34. The district court determined, however, that TT had not justified the granting of the new-trial or discovery relief it sought. The court ruled that TT had not shown that IBG had either withheld information during discovery or presented false testimony on how it was counting units traded. *Id.* at 837–38. The court also rejected TT's claim for relief based on TT's assertion that it reached its new understanding of IBG's damages calculation only because of information newly presented at trial, explaining that TT had access even before trial to the information necessary to reach that new understanding. *Id.*

The district court denied TT's motion for a new trial on February 22, 2022. TT timely filed a notice of appeal. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

TT challenges three rulings: the district court's grant of summary judgment of invalidity of the asserted claims of the '411 and '996 patents, the district court's exclusion of one basis for recovering "foreign damages," and the district court's denial of TT's motion for a new damages trial. We address those challenges in turn.

II

We agree with the district court that the asserted claims of the '411 and '996 patents claim ineligible subject matter. In this case, where we see no legally material facts in dispute, we decide the § 101 issue de novo. *See International Business Machines Corp. v. Zillow Group, Inc.*, 50 F.4th 1371, 1376–77 (Fed. Cir. 2022).

A

The asserted claims of the '411 and '996 patents are directed to abstract ideas, and they add nothing (no inventive concept) that transforms them into claims to eligible subject matter. Under the two-step analysis of *Alice*, the claims are therefore invalid under § 101. We drew the same conclusion in two precedential decisions in cases involving four other TT patents, one of them (U.S. Patent No. 7,904,374) a child of the '996 patent. *Trading Technologies International, Inc. v. IBG LLC*, 921 F.3d 1084 (Fed. Cir. 2019) (*IBG II*); *Trading Technologies*

International, Inc. v. IBG LLC, 921 F.3d 1378 (Fed. Cir. 2019) (*IBG III*). We see no material distinction between those cases and this one.

We consider "the focus of the claimed advance over the prior art" at the first step of *Alice*. *IBG II*, 921 F.3d at 1092 (internal quotation marks omitted where quoting *Intellectual Ventures I LLC v. Capital One Financial Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017)). Here, the claims focus on the receipt and display of certain market information (bids and offers) in a manner that newly helps users see the information for use in making trades. But the combination of receipt and display of information, even of a particular type, and use of the information to engage in the fundamental economic practice of placing an order, are abstract ideas. *See id.* at 1092–93 (collecting cases).

Nothing in the claims, understood in light of the specification, calls for anything but preexisting computers and displays, programmed using techniques known to skilled artisans, to present the new arrangement of information. *See*, *e.g.*, '132 patent, col. 4, line 61, through col. 5, line 3; '411 patent, col. 4, line 63, through col. 5, line 4; '996 patent, col. 4, lines 57–65. In that circumstance, a claim to "a purportedly new arrangement of generic information that assists traders in processing information more quickly" is a claim "directed to the abstract idea of graphing bids and offers to assist a trader to make an order." *IBG II*, 921 F.3d at 1093; *see also id.* at 1093–95. The focus is not on improving computers, as "mere automation of manual processes using generic computers" does not constitute such an improvement. *IBG III*, 921 F.3d at 1384 (internal quotation marks omitted where quoting *Credit Acceptance Corp. v. Westlake Services*, 859 F.3d 1044, 1055 (Fed. Cir. 2017)); *id.* at 1385 ("[A]rranging information along an axis does not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem.").

TT also cannot succeed at the second step of *Alice*, requiring an inventive concept to avoid ineligibility of a claim held at the first step to be directed to an abstract idea. "The abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance." *IBG II*, 921 F.3d at 1093 (internal quotation marks omitted where quoting *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1171 (Fed. Cir. 2018)); *IBG III*, 921 F.3d at 1385 (same). We have held that "receiving market information is simply routine data gathering, and displaying information as indicators along a scaled price axis is well-understood, routine, conventional activity that does not add something significantly more to the abstract idea." *IBG II*, 921 F.3d at 1093. Given the absence of an improvement in computer functionality, we conclude that the specific claim elements, "individually and as an ordered combination," *id.*, even if they make particular choices among abstract ideas involving information and ordering, do not add an inventive concept needed for eligibility.

We have presented the foregoing analysis with specific reference to the analysis set forth in the two cited *IBG* cases, applied to the similar claims at issue here. But that is only because the claims here are so similar to the claims in those cases. The principles that control here are amply supported by numerous other precedents, cited in or post-dating those decisions, as well. *See*, *e.g.*, *Ultramercial, Inc.v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014); *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015); *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Intellectual Ventures I LLC*, 850 F.3d at 1338; *Credit Acceptance Corp.*, 859 F.3d at 1055; *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018); *SAP America, Inc.*, 898 F.3d at 1167; *Data Engine Technologies LLC v. Google LLC*, 906 F.3d 999, 1007–08 (Fed. Cir. 2018); *Ericsson Inc. v. TCL Communication Technology Holdings Ltd.*, 955 F.3d 1317, 1327 (Fed. Cir. 2020); *IBM*, 50 F.4th at 1378.

B

TT argues that we should reject IBG's § 101 challenge to the asserted claims of the '411 and '996 patents because, as noted above, we rejected a § 101 challenge to claims of the '304 and '132 patents in our decision in *CQG*. But that decision is not precedential, and "[w]e are not bound by non-precedential decisions at all, much less ones to different patents, different specifications, *or* different claims." *IBG II*, 921 F.3d at 1095 (emphasis added). The lack of precedential force is reason enough to reject TT's reliance on *CQG*, and the difference in the claims reinforces that conclusion.

The claims of the '304 and '132 patents at issue in *CQG* require a "static price axis," 675 F. App'x at 1003 (quoting '304 patent, col. 12, line 36, through col. 13, line 3), whereas the claims of the '411 and '996 patents at issue here are broader, allowing some automatic movement of the price axis (by construction, in the case of the '996 patent, *Trading Technologies*, 2019 WL 6609428, at *3). IBG has not appealed the § 101 ruling regarding the '304 and '132 patents, so we have no occasion here to question that the static price axis can be characterized as providing "a specific solution to [a] then-existing technological problem[]," *Data Engine*, 906 F.3d at 1007–08—in particular, to the problem described by TT, namely, that a trader might click a location on the screen in an attempt to execute a transaction at a particular price but the attempt might fail if the price axis moved automatically, *see* TT's Opening Brief at 7–8. Even if the static price axis provides a specific solution to an existing problem, however, it does not follow that the claims at issue here, which cover displays *with* automatic movement of the price axis, provide such a specific solution. And TT suggests no other problem for which the '411 and '996 patents claim a "specific" solution. Accordingly, we conclude that *CQG* does not support alteration of our direct application of the § 101 standards reflected in our precedential decisions to hold that the asserted claims of the '411 and '996 patents are invalid for claiming the above-identified abstract ideas concerning the display of market information to facilitate trading in commodities markets.

TT also argues that a conclusion of eligibility of the asserted claims of the '411 and '996 patents is compelled by our holding in *IBG I*. In that decision, however, we did not hold that any claims of the ’411 and ’996 patents were ineligible under § 101—an issue we did not reach—but, rather, that those patents did not qualify for CBM review. 757 F. App’x at 1007–08. We reject TT’s argument based on *IBG I*.

TT does not invoke claim preclusion or issue preclusion based on the *IBG I* decision. And the *IBG I* decision is not precedential, so that decision is not binding: “We are not bound by non-precedential decisions at all . . . .” *IBG II*, 921 F.3d at 1095. In addition, the only rationale given in the *IBG I* decision was that an earlier *eligibility* conclusion (as to the ’132 and ’304 patents in *CQG*) implied *non-qualification* for CBM review under the requirement that a patent, to qualify, must not be “for [a] technological invention[],” AIA § 18(d)(1). *See IBG I*, 757 F. App’x at 1007–08. That rationale did not apply to the ’411 and ’996 patents, for which no eligibility holding existed.

Moreover, what TT now urges is not what *IBG I* concluded for two patents—that eligibility implied nonqualification for CBM review—but the logical converse of that rationale (in generalized form), namely, that nonqualification for CBM review implies eligibility. That converse principle, however, is not found in *IBG I* or in any other authority cited by TT. And we see no good reason to adopt it. The “for technological inventions” language used in AIA § 18(d)(1) with respect to the expired CBM program served merely to curtail access to a special, temporary avenue for patentability review, not to loosen or otherwise alter the substantive standards governing the merits determination of patentability, including § 101 eligibility. That language has not defined what is sufficient for eligibility under the § 101 standards we have developed in an extensive body of case law applying the principles of *Alice* in a variety of settings. We therefore reject TT's argument that the '411 and '996 patents' failure to qualify for CBM review implies that their claims are eligible under § 101.

III

TT argues that the district court erred in excluding one basis for damages proposed by TT's damages expert, Ms. Lawton—specifically, that TT should recover "foreign damages" flowing from "'[m]aking' the Accused Products in the United States." J.A. 87851. Exclusion of evidence under Federal Rule of Evidence 702 is generally reviewed under the standards prescribed by the pertinent regional circuit. *Power Integrations*, 711 F.3d at 1356. Seventh Circuit law, applicable here, provides for review for an abuse of discretion, which exists when the exclusion rests on a legal error, as determined de novo on appeal. *See Downing v. Abbott Laboratories*, 48 F.4th 793, 804 (7th Cir. 2022); *United States v. Dingwall*, 6 F.4th 744, 750 (7th Cir. 2021). Where an exclusion rests on an interpretation of patent law, we apply our own law and review the interpretation without deference. *BASF Plant Science, LP v. Commonwealth Scientific & Industrial Research Organisation*, 28 F.4th 1247, 1275 (Fed. Cir. 2022) (quoting *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1363 (Fed. Cir. 2004)).

TT argues that the district court should have applied the extraterritoriality analysis articulated by the Supreme Court in *WesternGeco*, rather than more restrictive principles the district court drew from *Power Integrations*. The district court was reluctant to conclude, on its own, that *WesternGeco* displaces *Power Integrations* as the required framework of analysis for this case, involving 35 U.S.C. § 271(a) and a reasonable royalty. We now draw that conclusion, in agreement with TT. Nevertheless, we conclude that, even under the *WesternGeco* framework, the evidence offered by TT's expert was properly excluded.

A

1

For a determination whether patent damages are properly awarded in a particular case based partly on conduct abroad, the decision in *WesternGeco* established a framework of analysis that necessarily supersedes the analysis set forth in our earlier decision *Power Integrations*. Not only is the structure of analysis different, but we also had relied on the *Power Integrations* analysis in our decision in the *WesternGeco* case on review in the Supreme Court, *see WesternGeco L.L.C. v. ION Geophysical Corp.*, 791 F.3d 1340, 1350–51 (Fed. Cir. 2015), and the Supreme Court reversed our decision, noting the reliance on *Power Integrations*, 585 U.S. at 411–12. In these circumstances, we must follow the Supreme Court's analysis, which now governs in place of the analysis of *Power Integrations*. *See Ideker Farms, Inc. v. United States*, 71 F.4th 964, 988 n.11 (Fed. Cir. 2023); *California Institute of Technology v. Broadcom Ltd.*, 25 F.4th 976, 991 (Fed. Cir. 2022); *SIPCO, LLC v. Emerson Electric Co.*, 980 F.3d 865, 870 n.1 (Fed. Cir. 2020); *Troy v. Samson Manufacturing Co.*, 758 F.3d 1322, 1326 (Fed. Cir. 2014); *Doe v. United States*, 372 F.3d 1347, 1354–57 (Fed. Cir. 2004).

We do not parse *Power Integrations* to identify which particular sentences are now superseded by *WesternGeco*. Nor do we have occasion to determine whether the *WesternGeco* analysis would ultimately have supported a recovery by Power Integrations of damages based on foreign conduct given the facts of its case. Here, and in future cases, analysis of the issue should simply proceed under the *WesternGeco* framework.[4]

We proceed with a detailed description of the

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[4] After the Supreme Court decided *WesternGeco*, (which involved 35 U.S.C. § 271(f)(2)), the district court in the *Power Integrations* case (which involved 35 U.S.C. § 271(a)) concluded that *WesternGeco* "implicitly overruled" our 2013 *Power Integrations* decision. *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*, No. 04-1371-LPS, 2018 WL 4804685, at *1 (D. Del. Oct. 4, 2018) (Stark, J.). On that basis, the court, acting under Federal Rule of Civil Procedure 60(b)(6), granted Power Integrations relief from the earlier judgment and newly allowed it "to seek recovery of worldwide damages," and the court certified the ruling for interlocutory review by this court under 28 U.S.C. § 1292(b). *Id.* at *2. But the appeal was dismissed before appellate review occurred, and the case settled, producing a dismissal in the district court, before a new trial occurred, No. 04-1371-LPS (D. Del. Oct. 25, 2019), ECF No. 995.

WesternGeco analysis, enabling us then to address the doctrinal issues flagged by TT and by the district court, before, in subsection III.B *infra*, applying the analysis to this case.

2

WesternGeco was the owner of several patents covering systems for surveying the ocean floor by use of sound-sending-and-receiving devices on long streamers towed by ships, where relevant claims required particular features for steering the streamers. *See WesternGeco*, 585 U.S. at 411; *WesternGeco*, 791 F.3d at 1343, *vacated*, 579 U.S. 915 (2016), *reinstated in relevant part*, 837 F.3d 1358 (Fed. Cir. 2016), *reversed*, 585 U.S. at 417. As relevant to the Supreme Court decision, a jury found the defendant ION Geophysical liable for infringement of the patent claims under 35 U.S.C. § 271(f)(2),[5] where the infringement consisted of ION Geophysical's domestic manufacturing of components of patent-claimed systems and its sending of the components abroad to companies that would use

[5] Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

35 U.S.C. § 271(f)(2).

them in assembling the overall systems and then use the systems to compete with WesternGeco in selling surveying services (to oil companies looking for undersea oil). *WesternGeco*, 585 U.S. at 411. The jury awarded lost-profits damages to WesternGeco, under the patent statute's damages provision, 35 U.S.C. § 284,[6] for the foreign survey-services sales WesternGeco lost to its survey-services competitors that had been supplied by ION Geophysical. *Id.* This court, relying on *Power Integrations*, held that award to be an impermissible extraterritorial application of § 284. *WesternGeco*, 791 F.3d at 1350–51.

The Supreme Court reversed, concluding that the lost-profits award for the § 271(f)(2) infringement was not impermissibly extraterritorial. 585 U.S. at 412–17. Specifically, the Court concluded that § 284 permits "the patent owner to recover for lost foreign profits," *id.* at 417, when such recovery is justified under § 284's directive to provide "'complete

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[6] Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed. Increased damages under this paragraph shall not apply to provisional rights under [35 U.S.C. § 154(d)].

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.

35 U.S.C. § 284.

compensation' for infringements," applied to the infringing (making-and-supplying) actions specified in § 271(f)(2), which the Court held to be domestic conduct. *Id.* at 408 (quoting *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655 (1983)).

The Supreme Court reached that conclusion by applying to the relevant patent-law statutes its two-step framework for deciding when an application of a statute is impermissibly extraterritorial. Under that framework, which starts with a presumption that a statute lacks extraterritorial reach, a court ordinarily asks, first, "whether the presumption against extraterritoriality has been rebutted" (by clear enough congressional action) and, second (if the presumption has not been rebutted), "whether the case involves a domestic application of the statute" (rather than an extraterritorial application). *Id.* at 413 (internal quotation marks omitted where quoting *RJR Nabisco, Inc. v. European Community*, 579 U.S. 325, 337 (2016)). The Court decided that the case should be decided by skipping the first step and proceeding immediately to the second step. *Id.* In conducting the second-step inquiry—into whether the statutory application at issue is a "domestic application"—courts are to identify "the statute's focus," *id.* (internal quotation marks omitted where quoting *RJR Nabisco*, 579 U.S. at 337), where the statute's "focus is the object of its solicitude, which can include the conduct it seeks to regulate, as well as the parties and interests it seeks to protect or vindicate," *id.* at 414 (cleaned up, internal quotation marks omitted where quoting *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247, 267 (2010), and an earlier decision).

When initially describing the relevant statutory provisions, the Court started by quoting the cause-of-action provision, 35 U.S.C. § 281 ("A patentee shall have remedy by civil action for infringement of his patent."), before quoting provisions of § 271 on infringement and § 284 on damages. *WesternGeco*, 585 U.S. at 409–11; *see also Dowling v. United States*, 473 U.S. 207, 227 n.19 (1985) (referring to § 281 as providing a "cause of action"). But when determining the "statutory focus" for its extraterritoriality analysis, the Court "beg[a]n with § 284," the damages provision. *WesternGeco*, 585 U.S. at 414. It reasoned that "[t]he portion of § 284 at issue" was the portion stating that "'the court shall award the claimant damages adequate to compensate for the infringement,'" and it noted its precedents' explanations that § 284's "overriding purpose . . . is to afford patent owners complete compensation for infringements," *id.* (cleaned up, internal quotation marks omitted where quoting *General Motors*, 461 U.S. at 655), and that the § 284 "question . . . is how much . . . the Patent Holder suffered by the infringement," *id.* at 414–15 (cleaned up, internal quotation marks omitted where quoting *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964) ("*Aro II*," a common shorthand)). Based on the "the infringement" language of § 284 and its precedents, the Court concluded: "Accordingly, the infringement is plainly the focus of § 284." *Id.* at 415.

Having identified "the infringement" as the focus of § 284, the Court, to complete its determination whether "the conduct relevant to the statutory focus in this case is domestic," then discussed the statutory provision defining "the infringement" at issue in the case. *Id.* at 414. That provision was § 271(f)(2), which, the Court concluded, "focuses on domestic conduct." *Id.* at 415. The Court explained: "The conduct that § 271(f)(2) regulates—*i.e.*, its focus—is the domestic act of 'supply[ing] in or from the United States.'" *Id.* (alteration in original) (quoting § 271(f)(2)); *see also id.* (concluding that § 271(f) "vindicates domestic interests" because it reaches domestically made components; and that the focus is on "the act of exporting components from the United States," which is "domestic infringement"). Therefore, the Court concluded, "the lost-profits damages that were awarded to WesternGeco were a domestic application of § 284." *Id.* at 415–16.

The Court added several points in response to objections to its analysis. It indicated that infringement was not the same as injury and did not encompass all the conduct that contributed to producing the injury. In particular, the Court reasoned that the infringement remained domestic even though foreign conduct (*e.g.*, ION Geophysical's customers' system assembly and sale of survey services) contributed to WesternGeco's loss of sales abroad; such "overseas events were merely incidental to the infringement"; and those events "do not have 'primacy' for purposes of the extraterritoriality analysis." *Id.* at 416 (quoting *Morrison*, 561 U.S. at 267). The Court also indicated that damages are not the same as injury. *Id.* at 417 (stating that the dissent's "position wrongly conflates legal injury with the damages arising from that injury"). Relatedly, the Court explained that *WesternGeco* was critically different from *RJR Nabisco*, whose pertinent provision was a civil-cause-of-action provision, 18 U.S.C. § 1964(c), that contained language expressly referring to injury, language that the Court in *RJR Nabisco* held to be limited to "'a *domestic* injury.'" *WesternGeco*, 585 U.S. at 416 (quoting *RJR Nabisco*, 579 U.S. at 346)). Whereas *RJR Nabisco* involved "a substantive element of a cause of action," the Court in *WesternGeco* said, 35 U.S.C. § 284 is a "remedial damages provision," not a cause-of-action provision, let alone one with an express injury element. *Id.*[7]

Importantly for the present case, it is clear that the Court in *WesternGeco* effectively recognized that a causation requirement is part of the § 284 standard, which authorizes an award "adequate to compensate for" the infringement. The Court quoted formulations inherently acknowledging a causation requirement that demands at least but-for causation. It quoted the *Aro II* description of § 284 as asking "how much . . . the Patent Holder . . . *suffered by the infringement*" and also the *Aro II* statement that the

[7] Although the court had earlier referred to the cause-of-action provision for the patent statute, 35 U.S.C. § 281, the Court in *WesternGeco* did not refer to § 281 in this *RJR Nabisco* discussion—perhaps reflecting the fact that there was no dispute that the cause of action was available to WesternGeco (which was awarded some damages not subject to challenge for extraterritoriality). The Court thus did not mention that § 281 itself contains no specific reference to injury, making it unlike 18 U.S.C. § 1964(c). The United States pointed out this difference in distinguishing *RJR Nabisco* in its amicus brief in *WesternGeco*. Brief for the United States as Amicus Curiae Supporting Petitioner, at 29–30, *WesternGeco*, 585 U.S. 407, 2018 WL 1168813.

patentee is entitled to recover "the difference between [its] pecuniary condition after the infringement, and what [its] condition would have been if the infringement had not occurred." *WesternGeco*, 585 U.S. at 414–15, 417 (alterations in original) (emphasis added) (internal quotation marks omitted where quoting *Aro II*, 377 U.S. at 507). And it quoted the statement in *General Motors* that compensation for infringement is "adequate" when it places the patentee "in as good a position as he would have been in if the patent had not been infringed." *Id.* at 417 (quoting 461 U.S. at 655); *see also General Motors*, 461 U.S. at 654–55 (describing § 284 as providing for "full compensation for 'any damages' he suffered *as a result of the infringement*" (emphasis added) (internal quotation marks omitted where quoting legislative history)). Finally, the Court in *WesternGeco* concluded by calling out the unaddressed issue of the scope of the causation requirement: "In reaching this holding, we do not address the extent to which other doctrines, such as proximate cause, could limit or preclude damages in particular cases." 585 U.S. at 417 n.3.

3

The first doctrinal issue before us is whether the *WesternGeco* framework applies when the direct infringement in question (either itself or as a component of indirect infringement) is one of the acts at issue here accused of infringing under § 271(a). We readily conclude that it does.

Nothing about the *WesternGeco* analysis of § 284, the damages provision, or about § 281, the cause-of-action provision, is altered when "the infringement" at issue is infringement under § 271(a) rather than § 271(f). Under *WesternGeco* we must examine the particular acts alleged to constitute infringement under particular statutory provisions to determine if the allegations focus on domestic conduct. Section 271(a) provides that "whoever without authority makes, uses, offers to sell, or sells any patented invention, *within the United States* or imports *into the United States* any patented invention during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a) (emphases added). At least the making, using, offering to sell, and selling provisions are expressly limited to domestic acts.[8]

If the exporting covered by § 271(f)(2) is a domestic act for purposes of the extraterritoriality analysis, as *WesternGeco* held, so too are the § 271(a)-covered acts at issue in this case. The *WesternGeco* extraterritoriality framework for damages under § 284 therefore applies to the

[8] The remaining act, importing into the United States, might also be properly characterized as a domestic act. *Cf. Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 807 F.3d 1283, 1308 (Fed. Cir. 2015) (Regarding "import[ing] into the United States for use in the United States," the court stated: "Section 271(a) makes clear that Congress meant to reach such 'import[ation]' and 'use[]' as domestic conduct."). In any event, Congress clearly authorized coverage of importing as an infringing act, so if importing is characterized as extraterritorial, the statute provides a "clear indication of an extraterritorial application," thus rebutting the presumption against extraterritoriality at the first step of the two-step analysis. *WesternGeco*, 585 U.S. at 413 (internal quotation marks omitted).

infringement under § 271(a) here.

4

We also conclude that the *WesternGeco* framework applies to a reasonable-royalty award, not just a lost-profits award, under § 284, though its application must reflect the established differences in standards for the two types of awards.

Although the damages at issue in *WesternGeco* were lost-profits damages, 585 U.S. at 411, 417, the Court's statutory analysis did not distinguish the forms of damages. In discussing § 284, the Court described it as providing "a general damages remedy," and its essential point about § 284 was that damages were for "the infringement." *Id.* at 414–15. In describing the basic principle governing damages under § 284, the Court relied on two precedents that involved reasonable royalties. *Id.* (relying on *General Motors* and *Aro II*). The Supreme Court in *Aro II* construed the language of § 284 as treating the reasonable royalty authorized by the provision as a form of damages rather than as a substitute for damages, 377 U.S. at 504–08, notwithstanding the difference in conceptual foundation of lost profits and a reasonable royalty (at least when not measured by an established royalty); and we have consistently followed that treatment, *see*, *e.g.*, *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544–45 (Fed. Cir. 1995) (en banc); *Laser Dynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 66 (Fed. Cir. 2012); *Pavo Solutions LLC v. Kingston Technology Co.*, 35 F.4th 1367, 1379 (Fed. Cir. 2022); *VLSI Technology LLC v. Intel Corp.*, 87 F.4th 1332, 1345 (Fed. Cir. 2023). We hold, therefore, that the Court's framework in

WesternGeco, and its conclusions about what is a domestic rather than extraterritorial application of § 284, must apply to a reasonable-royalty case.

That conclusion hardly means that the analysis of a reasonable-royalty case may ignore the well-recognized differences between lost-profits and reasonable-royalty damages, conceptually and in the formulations governing their availability and calculation. An award of lost profits generally depends on showing the existence and magnitude of profits lost to the patentee on sales the patentee did not make, or made at lower prices, as a result, under proper causation standards, of the infringement. *See*, *e.g.*, *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1283–90 (Fed. Cir. 2017); *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1376–79 (Fed. Cir. 2003); *Rite-Hite*, 56 F.3d at 1544–49; *see also Dowagiac Manufacturing Co. v. Minnesota Moline Plow Co.*, 235 U.S. 641, 648 (1915). "The reasonable royalty theory of damages, however, seeks to compensate the patentee not for lost sales caused by the infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing." *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1334 (Fed. Cir. 2015). "As the exclusive right conferred by the patent was property, and the infringement was a tortious taking of a part of that property, the normal measures of damages was the value of what was taken," and it is "permissible to show the value by proving what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved." *Dowagiac*, 235 U.S. at 648.

This case involves a reasonable royalty, and repeatedly articulated standards frame how the particular issue presented here is properly formulated. "There is no dispute here about the propriety of using the common hypothetical-negotiation approach to calculating a reasonable royalty, under which the finder of fact 'attempts to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.'" *Asetek Danmark A/S v. CMI USA Inc.*, 852 F.3d 1352, 1362 (Fed. Cir. 2017) (quoting *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009)); *see* Jury Instructions at 51–56, *Trading Technologies International, Inc. v. IBG LLC*, No. 10 C 715 (N.D. Ill. Sept. 2, 2021), ECF No. 2130. Many authorities address issues concerning the hypothetical negotiation, which, operating under certain assumptions, at its core is a process for identifying the incremental value of the claimed technology over noninfringing alternatives and determining how that gain would be shared. *See, e.g.*, *VLSI*, 87 F.4th at 1345–46; *Asetek Danmark*, 852 F.3d at 1362–63; *Carnegie Mellon*, 807 F.3d at 1304–05; *AstraZeneca*, 782 F.3d at 1334–44; *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 770 (Fed. Cir. 2014); *Lucent*, 580 F.3d at 1324–25.

The foundational principle is that "the royalty due for patent infringement should be the value of what was taken—the value of the use of *the patented technology*." *AstraZeneca*, 782 F.3d at 1344 (emphasis added) (internal quotation marks omitted); *see VLSI*, 87 F.4th at 1345; *Aqua Shield*, 774 F.3d at 770. One aspect of that principle is that "[t]he royalty base for reasonable royalty damages cannot include activities that do not constitute patent infringement, as patent damages are limited to those 'adequate to compensate for the infringement.'" *AstraZeneca*, 782 F.3d at 1343 (quoting 35 U.S.C. § 284). For example, a patentee "may of course obtain damages only for acts of infringement after the issuance of the . . . patent." *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 304 (Fed. Cir. 1995) (quoted with approval in *AstraZeneca*, 782 F.3d at 1343). Relatedly, the bottom-line royalty "must be 'apportion[ed] to [the value of the patented technology]—by separating out and excluding other value in economic products or practices." *VLSI*, 87 F.4th at 1345 (citing numerous cases). In other words, the incremental value to be allocated, in the hypothetical negotiation, is the value of the *claimed* technology (not, *e.g.*, of unclaimed product improvements) over that of noninfringing alternatives.

Those principles point to a minimum requirement for a patentee seeking reasonable-royalty damages based on foreign conduct that is not independently infringing. Under the foregoing principles, the hypothetical negotiation must turn on the amount the hypothetical infringer would agree to pay to be permitted to engage in the domestic acts constituting "the infringement." 35 U.S.C. § 284. If the patentee seeks to increase that amount by pointing to foreign conduct that is not itself infringing, the patentee must, at the least, show why that foreign conduct increases the value of the domestic infringement itself—because, *e.g.*, the domestic infringement enables and is needed to enable otherwise-unavailable profits from conduct abroad—while respecting the apportionment limit that excludes values beyond that of practicing the patent. This kind of causal connection, framed in terms of the agreement-to-pay aspect of a hypothetical negotiation, is a necessary beginning—we need not here say it is sufficient—for a foreign-conduct analysis in a reasonable-royalty case. *Cf. Carnegie Mellon*, 807 F.3d at 1307 (noting that defendant's sales abroad were "strongly enough tied to its domestic infringement as a causation matter to have been part of the hypothetical-negotiation agreement," before moving on to apply extra-territoriality standards based on *Power Integrations*, now superseded by *WesternGeco*).

5

Finally, and relatedly, because *WesternGeco* establishes a new framework, of which causation is a necessary part, a few observations on causation are warranted based on the Supreme Court's note that it was not ruling on "the extent to which other doctrines, such as proximate cause, could limit or preclude damages in particular cases." 585 U.S. at 417 n.3.

We have recognized that "proximate" causation is required and that proximate causation requires but-for causation plus more, including the absence of remoteness. *Rite-Hite*, 56 F.3d at 1546 ("the 'test' for compensability . . . under § 284 is not solely a 'but for' test"; additional limits, including limits on remoteness, apply, labeled "proximate cause"). We have said, too, in the lost-profits setting, that "reasonable, objective foreseeability" is generally" sufficient for proximate causation, while indicating that a different conclusion might be justified if there is "a persuasive reason to the contrary." *Id.*

The Supreme Court, for its part, has noted that proximate causation is more than but-for causation, *see*, *e.g.*, *Anza v. Ideal Steel Supply Corp.*, 547 U.S. 451, 456–57 (2006), containing a directness requirement, *id.* at 457–58, and described the proximate-cause requirement as the "traditional requirement," *Bank of America Corp. v. City of Miami*, 581 U.S. 189, 201 (2017). More specifically, the Court has explained that "[i]t is a well established principle of [the common] law that in all cases of loss, we are to attribute it to the proximate cause, and not to any remote cause" and that the Court "assume[s] Congress is familiar with the common-law rule and does not mean to displace it *sub silentio*." *Id.* (internal quotation marks omitted where quoting *Lexmark International, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 132 (2014)). And, based on that logic, the Court held the proximate-cause requirement applicable to a statutory claim that was "akin to a tort action," *id.* (internal quotation marks omitted)—a characterization that fits patent infringement, described by the Court as "a tortious taking," *Dowagiac*, 235 U.S. at 648.[9] At the same

[9] *See also Carbice Corp. of America v. American Patents Development Corp.*, 283 U.S. 27, 33 (1931); *Belknap v. Schild*, 161 U.S. 10, 17 (1896); *Schillinger v. United States*, 155 U.S. 163, 169 (1894); *Wordtech Systems, Inc. v. Integrated Network Solutions, Inc.,* 609 F.3d 1308, 1313 (Fed. Cir. 2010); *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1365 (Fed.

time, the Supreme Court explained that, for some statutes, "foreseeability alone is not sufficient to establish proximate cause," *Bank of America*, 581 U.S. at 201, and that the "[p]roximate-cause analysis is controlled by the nature of the statutory cause of action," *id.* (internal quotation marks omitted where quoting *Lexmark*, 572 U.S. at 133). In finding foreseeability insufficient under the statute at issue in *Bank of America*, the Court considered the consequences of the contrary view in the context of that statute. *Id.* at 202–03.

The foregoing authorities raise questions about the proper approach to determining, based on "other doctrines, such as proximate cause," *WesternGeco*, 585 U.S. at 417 n.3, when foreign conduct can properly play a role in calculating patent damages. One such question is whether the "reasonable, objective foreseeability" presumptive standard for lost profits, *Rite-Hite*, 56 F.3d at 1546, is applicable where the damages are for a (non-established) reasonable royalty, whose conceptual foundation is notably different from that of lost profits. Another question concerns the long-recognized general avoidance of extraterritorial reach that is an aspect of the statutory context. *Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 455–56 (2007); *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972); *Carnegie Mellon*, 807 F.3d at 1306; *Power Integrations*, 711 F.3d at 1371. What, if any, room is there to take that consideration into account in applying the proximate-cause

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Cir. 2008); *cf. Mentor Graphics*, 851 F.3d at 1284 (analogizing to tort law).

requirement, itself not addressed in *WesternGeco*, without contradicting the Supreme Court's ruling in *WesternGeco*? We need not and do not here suggest answers to, or further explore, those or other questions.

B

The requirement of the foregoing framework that is dispositive here is that "the infringement"—the focus of § 284, as the Court in *WesternGeco* repeatedly stressed—have the needed causal relationship to the foreign conduct for which recovery is sought. Ms. Lawton's "Making the Accused Product with Foreign Damages" basis for claimed damages did not meet this fundamental requirement—at least because Ms. Lawton did not focus on "the infringement." That failure called for its exclusion.

1

Infringement under § 271(a) is one of the specified acts involving the "patented invention"—making, using, offering to sell, selling, or importing it. 35 U.S.C. § 271(a). "[T]he claims measure the invention," *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 419 (1908); "[e]ach element contained in a patent claim is deemed material to defining the scope of the patent invention, . . . and a patentee's rights extend only to the claimed combination of elements, and no further," *Limelight Networks, Inc. v. Akamai Technologies, Inc.*, 572 U.S. 915, 921 (2014) (internal quotation marks omitted where quoting *Warner-Jenkinson Co., Inc. v. Hilton*

Davis Chemical Co., 520 U.S. 17, 29 (1997)); and "infringement must be decided with respect to each asserted claim as a separate entity," *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1559 (Fed. Cir. 1983). *See also*, *e.g.*, *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 321, 332 (2015); *Altoona Publix Theatres v. American Tri-Ergon Corp.*, 294 U.S. 477, 487 (1935); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1220 (Fed. Cir. 1995); *In re Vogel*, 422 F.2d 438, 441 (CCPA 1970).

Here, there are two groups of claims at issue: claims to a method; and claims to a computer readable medium (CRM) containing computer code. Infringement therefore is limited to making, using, offering to sell, selling, or importing a method or a CRM. Ms. Lawton's at-issue proposal, however, does not focus on one of those acts.

In that proposal, the asserted infringement is "Making the Accused Product." This language cannot reasonably be read to refer to the method claims. TT has not argued that it refers to making the claimed methods. And any such reading of the language would have to overcome at least two related obstacles: There is no established recognition in patent law of direct infringement by "making" a "method"; and, indeed, we have indicated that direct infringement is limited to using the method, stating that "[a] method claim is *directly* infringed only by one practicing the patented method," *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d 770, 775 (Fed. Cir. 1993). *See NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319–21 (Fed. Cir. 2005) (explaining similar recognition in congressional reports associated with the Process Patent Amendments Act of 1988, Pub. L. No. 100-418, Title IX, § 9003, 102 Stat. 1563–67; ultimately reserving novel issue whether methods can be sold or offered for sale); Timothy R. Holbrook, *Method Patent Exceptionalism*, 102 Iowa L. Rev. 1001, 1014 (2017) ("Generally, process patents are infringed only when the steps of the process are performed.").

For Ms. Lawton's proposal to suffice even to begin a showing of causation based on domestic "infringement," therefore, it would have to refer to the CRM claims. But Ms. Lawton in proposing the theory, and TT in explaining it, have pointedly not focused on making an individual memory-device unit, whether freestanding (like a memory stick) or a part of a larger physical unit (like a hard drive in a personal computer or server). They have referred, instead, to the TWS BookTrader software itself—"the instructions themselves detached from any medium" (rather than a "tangible 'copy'"), "software in the abstract," software "[a]bstracted from a usable copy." *Microsoft*, 550 U.S. at 447–448, 449 n.10, 451, 451 n.12. Ms. Lawton stated, using the singular when discussing what was "made," that "BookTrader is the Accused Product and is included in every version and every download of TWS and WebTrader," J.A. 87793, and it was "designed and made" and "developed" and "upgrade[d]" in the United States before being "provided . . . to customers around the world," J.A. 87851–53. TT, explaining Ms. Lawton's proposal in the district court, focused on domestic designing and programming of TWS BookTrader. J.A. 88411–12;

see also Oral Arg. at 14:07–14:20 (same).

The Supreme Court has recognized the important distinction between software and a particular copy of it on a CRM, as just noted. *See Microsoft*, 550 U.S. at 447–448, 449 n.10, 451, 451 n.12. Even if the BookTrader software as such *could* be claimed (without violating statutory requirements such as 35 U.S.C. § 101)—which we need not decide—the software itself is not claimed in the ’304 and ’132 patent claims at issue. Thus, Ms. Lawton’s proposal is legally insufficient, even under the *WesternGeco* framework, for the simple reason that, though it claims a “making,” it does not start from an act of “infringement”—making a claimed CRM (or method)—in asserting the required causal connection to the foreign conduct for which the proposal seeks royalty damages. We will not rewrite Ms. Lawton’s proposal to say something it does not.

2

That deficiency suffices for affirmance of the evidence-exclusion ruling, but it is worth noting at least one other seeming deficiency in Ms. Lawton’s proposal, which reinforces our unwillingness to rewrite Ms. Lawton’s proposal. Although they expressly invoked *WesternGeco*, Ms. Lawton and TT presented no focused, coherent explanation of the required causal connection to domestic infringement, even putting aside the mismatch between the proposal and the claims.

Notable in this respect is a fact about timing. We may assume (without deciding) that IBG had to make early CRMs domestically (or practice the claimed method) as part of its process of developing its software and that the value of such development work to IBG might reflect prospective foreign-earned revenue for the resulting product. *Cf. Carnegie Mellon*, 807 F.3d at 1294, 1297, 1307 (referring to payment for domestic infringement that is part of development work that, when completed, would produce large foreign revenues). In this case, however, according to TT and Ms. Lawton, IBG's development of its BookTrader product meeting all claim limitations occurred before TT's patents issued: TT accused IBG of marketing its BookTrader product before July 20, 2004, which caused infringement to begin precisely when the '304 patent issued. On that premise, IBG's making of CRMs in the initial creation of a BookTrader product meeting all claim limitations was not infringing under § 271(a), and IBG therefore did not need to pay TT anything for that work, which could not properly be included in the calculation in the hypothetical negotiation held "just before" July 20, 2004. *See Asetek Danmark*, 852 F.3d at 1362; *Lucent*, 580 F.3d at 1324.

Later domestic making of BookTrader containing CRMs (or practicing of the claimed methods) could be infringing, of course, and properly be subject to a royalty. But TT was permitted to introduce evidence that some foreign users of BookTrader obtained their copies from domestic acts of making a copy or selling. *FRE 702 Opinion*, 2021 WL 5038754, at *2. The only disallowed proposal therefore had to involve making of copies abroad for foreign users (and foreign sales).

On TT's and Ms. Lawton's premise that pre-July 20, 2004 versions of TWS BookTrader met the limitations of the '304 and '132 patents' claims, TT has not offered a concrete, coherent account of why, in the hypothetical negotiation, the royalty for new domestic acts of making claimed CRMs (or practicing claimed methods), starting July 20, 2004, would have properly been increased to reflect the prospective making and sale of CRMs abroad for use abroad. On the noted premise, IBG, even before the patents issued, already had CRMs containing TWS BookTrader that met the patents' limitations. "[N]either export from the United States nor use in a foreign country of a product covered by a United States patent constitutes infringement." *Johns Hopkins University v. CellPro, Inc.*, 152 F.3d 1342, 1366 (Fed. Cir. 1998). And TT has not argued that the making of CRMs abroad would be infringing, even if the software installed abroad came from the United States, either under § 271(a), *see Centillion Data Systems, LLC v. Qwest Communications International, Inc.*, 631 F.3d 1279, 1288 (Fed. Cir. 2011); *Deepsouth*, 406 U.S. at 527, or under § 271(f), *see Microsoft*, 550 U.S. at 449–50 (software itself is not a "component" under § 271(f)).[10]

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[10] Congress responded to *Deepsouth* in 1984, but it did not change § 271(a) or, therefore, redefine when "making" occurs under that provision. Rather, Congress added a new subsection (f) defining new infringing acts. *See Microsoft*, 550 U.S. at 442–45; *see also Life Technologies Corp. v. Promega Corp.*, 580 U.S. 140, 151–52 (2017).

IBG might of course infringe by domestically making new CRMs containing upgraded versions of TWS BookTrader. But TT has not shown how value added by the upgrades would be properly added to the royalty in light of the apportionment requirement to avoid charging for value not attributable to the claimed invention. In particular, TT has not explained how such upgrade value would be anything but the value of features beyond what is required by the patent claims, on TT's and Ms. Lawton's premise about pre-July 20, 2004 versions of TWS Book Trader coming within the claims.

There is, in short, an apparent deficiency over and above the fundamental infringement-identifying one previously discussed. We need not, however, definitively draw a conclusion about the presence of this additional deficiency. The fundamental deficiency discussed above suffices for affirmance of the district court's Rule 702 exclusion ruling.

IV

In its final challenge in this appeal, TT asserts that the district court "abused its discretion" when it denied TT's motion for a new damages trial and new discovery on damages, a motion in which TT asserted that IBG committed fraud regarding its own calculation of damages. TT's Opening Br. at 52. As the district court noted in denying the motion, the substance of TT's request is materially the same whether it is considered under Rule 59 or under Rule 60(b)(3), *Post-Trial Opinion*, 586 F. Supp. 3d at 833–34, and TT has not distinguished the two Rules in its arguments on appeal, TT's Opening Br. at 52–67. TT itself endorses an "abuse of discretion" standard for our review of the district court's denial, *id.* at 33, 52, reflecting the Seventh Circuit's precedents. *See Abellan v. Lavelo Property Management, LLC*, 948 F.3d 820, 830 (7th Cir. 1994) (Rule 59); *Philos Technologies, Inc. v. Philos & D, Inc.*, 802 F.3d 905, 917 (7th Cir. 2015) (Rule 60(b)(3)); *see also Cap Export, LLC v. Zinus, Inc.*, 996 F.3d 1332, 1338 (Fed. Cir. 2021) (following regional-circuit law). The Seventh Circuit has stated that relief under 60(b)(3) is "'an extraordinary remedy and is granted only in exceptional circumstances.'" *Wickens v. Shell Oil Co.*, 620 F.3d 747, 759 (7th Cir. 2010) (quoting *Dickerson v. Board of Education*, 32 F.3d 1114, 1116 (7th Cir. 1994)).

TT's argument on appeal reduces to the assertion that IBG, whose damages calculation was based on counting particular accused trades made by users of IBG's Trader Workstation Platform (TWS), failed to give TT enough information about how IBG was counting the trades—more particularly, what role the BookTrader feature of TWS had to play in a trade (*e.g.*, as originator or as submitter) for the trade to be counted. *See* TT's Opening Br. at 59–60. We see no clear error, based on the record, in the district court's careful evaluation of the evidence available to TT through discovery and its determination that IBG did disclose the key information that TT alleged was withheld, including the list of various TWS tools (features). *Post-Trial Opinion*, 586 F. Supp. 3d at 835–36.[11] On the basis of its supported findings, the

[11] Nor do we see clear error in the district court's rejection of TT's assertion that IBG sponsored false testimony,

court could properly conclude, as it did, that TT had ample reason and opportunity before trial to uncover the now-asserted problems with IBG's evidence that TT says it uncovered only through its post-trial investigation. *Id.* at 837–38.

It is institutionally important that parties generally be held to the duty to conduct needed investigations of facts before trial. *See*, *e.g.*, *Rutledge v. United States*, 230 F.3d 1041, 1052 (7th Cir. 2000) (stating that "Rule 60(b) motions cannot be used to present evidence that with due diligence could have been introduced before judgment"). We see no abuse of discretion in the district court's denial of TT's post-trial motion.

V

We have considered TT's other arguments, and we find them unpersuasive. For the foregoing reasons, we affirm the district court's judgment, including its grant of summary judgment of ineligibility of the asserted claims of the '411 and '996 patents, exclusion of Ms. Lawton's testimony on the "domestic making with foreign damages" theory, and denial of TT's motion for a new trial.

The parties shall bear their own costs.

AFFIRMED

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id. at 837, a ruling to which TT presents no meaningful challenge on appeal.

APPENDIX B – MEMORANDUM OPINION AND ORDER OF THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, FILED FEBRUARY 22, 2022

IN THE UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

No. 10 C 715

HARRIS BRUMFIELD, TRUSTEE FOR ASCENT TRUST,

Plaintiff,

v.

IBG LLC, *et al*,

Defendants.

Judge Virginia M. Kendall

MEMORANDUM OPINION AND ORDER

Following a month-long jury trial in this patent infringement action, the jury returned a verdict in Trading Technologies'("TT")[1] favor, finding that IB's BookTrader product infringed TT's '304 and '132 patents. (Dkt. 2134). The jury awarded TT $6,610,985

[1] Since the completion of trial and the filing of this motion, TT transferred its interest in the patents-in-suit to Harris Brumfield. (Dkt. 2188). The Court accordingly granted TT's motion to substitute Mr. Brumfield as the Plaintiff in this action. (Dkt. 2216). For purposes of consistency and to avoid confusion, however, the Court continues to refer to TT the Plaintiff.

in damages. (*Id.*). Before the Court is TT's motion for a new trial on damages and for post-trial damages discovery. Fed. R. Civ. P. 50(b); Fed. R. Civ. P. 59(a)(1)(A); Fed. R. Civ. P. 60(b)(3). For the following reasons, TT's motion (Dkt. 2138) is denied.

BACKGROUND

I. Discussion of Hot Key Framework at Trial

During discovery and trial, IB maintained that it accurately tracked the amount of customer trades executed through BookTrader since 2006, which represented only 3–5% of the total trades made through Trader WorkStation ("TWS"). (Trial Transcript at 370, 2134, 2493, 3239–40, 4116–17) (Dkt. 2138 at Ex. 3). IB claimed to track orders based on the tool used to submit a given order to the exchange. Specifically, every tool within TWS, including BookTrader has a unique "order originator" tag such that orders can be tracked based on each tool. (*Id.* at 1500, 2197, 2495). Multiple IB witnesses confirmed the accuracy of the order originator tagging process and the transactions data derived from it. (*Id.* at 2199, 2498–99). IB's damages expert, Brett Reed, relied on IB's transaction data to derive a reasonable royalty calculation, which the jury ultimate adopted. (Trial Transcript at 3330, 3375) (Dkt. 2134).

At trial, one of IB's witnesses, Dennis Stetsenko, explained that order originator tagging is part of a larger "hot key framework." (*Id*. at 2494–95) ("the actual tagging part" of the framework was the "order originator") (*see also id*. at 2558) (the "[h]ot key framework is a pathway on how the order originator gets assigned."). Stetsenko testified that the hot key framework was a means to "connect user action, mouse or key stroke, with a tool" such that it allows IB to "track orders placed from a specific tool." (*Id*. at 2494). TT claims this is the first time IB disclosed the hot key framework and its relation to order tagging.

II. Failure to Produce Hot Key Framework

In August 2019, TT issued the following discovery request to IB:

> [D]ocuments sufficient to show how each category of information stored [customers, users, unique login identifiers, transaction data, audit data, logging data, or daily stat reports] is generated (including identify any source code files present in Trader WorkStation, WebTrader, BookTrader, and any related white-branded or white-labeled interfaces, or other programming regardless of where such files are present, responsible for logging, tracking, or generating the data)[.]

(Dkt. 2138 at Ex. 12). TT claims the hot key framework source code was responsive to this request, but that IB withheld it nonetheless.

IB maintains it produced the hot key framework source code in February 2020, well before trial. (Dkt. 2162 at Ex. A–B). In a post-trial declaration, Stetsenko explains "there is a specific code for BookTrader that assigns originators for BookTrader" called the "BookTrader Hot Key Code" and a "generic Hot Key Code," both of which can be found among the source code IB produced to TT. (*Id*. at Ex. Q, ¶¶ 6–8). In addition, IB retained a source code expert, Dr. Benjamin Goldberg, who examined the produced source code and opined that IB did in fact produce the generic and BookTrader-specific hot key code. (*Id*. at Ex. R, ¶¶ 13–21). Both Stetsenko and Dr. Goldberg reference numerous filenames produced with the name "hotkey" in them in support of their testimony. (*Id*.); (*id*. at Ex. Q, ¶¶ 6–8). Dr. Goldberg further opined that the produced code "includes code relating to 'originator' field associations to indicate an order was placed using BookTrader" and that it is programmed to track such orders accurately. (*Id*. at Ex. R, ¶¶ 13, 22– 26).

TT submits a competing declaration from Michael Fenn who maintains that notwithstanding the appearance of the term "hotkey" in the produced source code, what IB produced is not a true hot key code showing "the prevailing logic by which TWS assigns originator tags to orders placed using trading tools in TWS." (Dkt. 2220 at Ex. B, ¶¶ 6, 12). Fenn admits TT was aware of the term "hotkey" prior to trial, but that it "had a singular meaning" as "refer[ring] to the user-definable mapping of actions (such as to buy or sell) on to keystrokes or mouse clicks....” (*Id*. at ¶ 10). According to TT, however, the hot key framework as a “tagging mechanism that TWS uses ... to correlate orders submitted within certain TWS tools” was not disclosed until Stetsenko’s trial testimony. (*Id*. at ¶ 8).

III. Tracking Orders via Origination Tool versus Order Entry Tool

As part of his discussion at trial of IB’s order tracking mechanisms, Stetsenko testified:

> Q: Sir, you talked about IB having a mechanism to track commission—commissions attributable to Order Entry tools, right?
>
> A: Attributable to trading tools, not Order Entry tools.
>
> Q: To what?
>
> A: To trading tools.
>
> Q: Oh, it tracks more than just Order Entry tools. It’s just trading tools in general, right?
>
> A: So it tracks orders placed from trading tools.
>
> Q: Okay. But could a trading tool be something that doesn’t allow you to enter orders?

A: Yeah.

(Trial Transcript at 2551–52). In a post-trial declaration from Harris Brumfield, TT proposes a distinction between a "trading tool," which is a "tool related to trading" that may "consist of order entry tools and non-order entry trading tools" and an "order entry tool," which is a "tool that users interface with to submit orders." (Dkt. 2146 at Ex. 24, ¶ 4). TT and Brumfield claim Stetsenko's trial testimony revealed for the first time that "IB is tracking orders/trades by trading tools, and not by order entry tools" and that the hot key framework "is the component of TWS that is responsible for tracking orders/trades by trading tools in TWS." (*Id*. at ¶¶ 6, 12). Brumfield testifies that "tracking orders/trades by trading tools wiped out a large percentage of BookTrader's trades, and gave credit for those trades to other trading tools." (*Id*. ¶ 14). Consequently, TT claims the transactions data IB relied on for its damages calculation is severely flawed. In an effort to verify its theory, Brumfield conducted a post-trial investigation of stat reports previously produced by IB and admitted into evidence at trial, which revealed that of the 38 order entry tools identified by IB, five tools were actually non-order entry tools that nonetheless received credit for orders. (*Id*. at ¶ 7) (Dkt. 2229 at ¶ 9).

In his post-trial declaration, Stetsenko maintains "Brumfield is wrong—all of the tools he says are "non-order entry" tools are used by users to place orders. (Dkt. 2162 at Ex. Q, ¶ 22). He goes on to explain:

The order entry tools in TWS can largely be categorized in two categories: (a) those that are self-contained (i.e. they have their own order entry mechanism); and (b) those that are intended for order placement but do not have their own graphical order entry mechanism and thus use another IB tool for that purpose (e.g., Mosaic Market Dept (aka "Agg Book")). For the first category, the mechanism of order entry is straightforward; a user simply clicks to place an order or uses the keyboard to input an order from that tool. BookTrader belongs to this first category. For the second category, because the tools are intended for order placement but do not have their own graphical order entry mechanism, IB purposely uses another tool, such as the tool Order Entry, for the graphical display that the user can interact with to place an order or the user can use the keyboard to input an order. For both categories, when an order is placed using the keyboard, the order is correctly tagged with the originator tag of the tool it originated from, not any other tool. Similarly, if the order is placed using the graphical interface, the order is correctly tagged with the

> originator tag of the tool it originated from.

(*Id.*) According to Stetsenko, the hot key source code does not contain "a secrete tagging mechanism that is changing or hiding the true extent of BookTrader use" as TT claims. (*Id.* at ¶¶ 9, 22).

Brumfield maintains Stetsenko's explanation confirms that "[f]or IB, 'originating' an order and 'submitting' an order are distinct acts" because "[t]he tools in Mr. Stetsenko's second category (b) are getting credit for 'originating' orders despite users not being able to use them to 'submit' orders to the exchange." (Dkt. 2229 at ¶ 10). He concludes, in a slight alteration of his original proposition, that "[t]herefore, IB tracks orders and trades by what tools the orders originate from, not by what tools the orders are submitted from." (*Id.*)

IV. TT's New Trial Motion

On October 5, 2021, TT filed the present motion for a new trial and post-trial discovery premised on IB's failure to disclose the hot key framework and its presentation of false trial testimony regarding the way it tracks orders and the accuracy of such orders. (Dkt. 2138). [2]

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[2] In its opening brief, TT moved for a new trial on willfulness but failed to advance any argument or support for a new trial on that issue. (*See* Dkt. 2138). In its reply brief, TT revised its request to a default judgment of willfulness, but again

LEGAL STANDARD

TT moves for relief under Federal Rules of Evidence 50, 59, and 60. Judgment as a matter of law, and new trial, is appropriate under Rule 50 if no "reasonable jury would have 'a legally sufficient evidentiary basis to find for the party on that issue.'" *Empress Casino Joliet Corp. v. Balmoral Racing Club, Inc.*, 831 F.3d 815, 822 (7th Cir. 2016) (quoting Fed. R. Civ. P. 50). Rule 59 permits the Court to order a new trial "after a jury trial, for any reason for which a new trial has heretofore been granted in an action at law in federal court." Fed. R. Civ. P. 59(a)(1)(A). "A new trial is appropriate if the jury's verdict is against the manifest weight of the evidence or if the trial was in some way unfair to the moving party." *Venson v. Altamirano*, 749 F.3d 641, 656 (7th Cir. 2014). Under Rule 60(b)(3) "a court may set aside a judgment if a party engaged in fraud, misrepresentation, or misconduct by an opposing party." *Wickens v. Shell Oil Co.*, 620 F.3d 747, 758 (7th Cir. 2010) (internal quotations and parentheticals omitted). Relief under Rule 60(b)(3) is "an extraordinary remedy granted only in exceptional circumstances." *Fields v. City of Chicago*, 981 F.3d 534, 558 (7th Cir. 2020) (citation

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advances no argument or support for such relief. (*See* Dkt. 2228). Accordingly, the Court declines to consider TT's request for default judgment of willfulness. *See e.g., Kelso v. Bayer Corp.*, 398 F.3d 640, 643 (7th Cir. 2005) (argument waived where party "failed to cite any legal support or develop any legal argument in support of his position.").

omitted). Fraud, misrepresentation, or misconduct are the proper bases of a new trial under either Fed. R. Civ. P. 59 or 60. *Brandt v. Vulcan, Inc.*, 30 F.3d 752, 758 (7th Cir. 1994). Thus, for purposes of the present motion, there is no substantive difference between the standard for new trial under Rule 59 or 60. *See e.g., White v. Anthology, Inc.*, No. 08 C 1371, 2009 WL 4215096, at *2 (N.D. Ill. Nov. 16, 2009).

DISCUSSION

I. Hot Key Code and Order Tracking

TT maintains it is entitled to a new trial because (1) IB failed to disclose the hot key framework source code until Stetsenko's trial testimony and (2) IB and its witnesses falsely testified at trial that IB accurately tracks orders by order entry tool, when that is not the case. Under Rule 60(b)(3), the moving party "must demonstrate by clear and convincing evidence that: (1) the party maintained a meritorious claim at trial; and (2) because of the fraud, misrepresentation or misconduct of the adverse party; (3) the party was prevented from fully and fairly presenting its case at trial." *Fields*, 981 F.3d at 558 (internal quotations and citation omitted). "In considering these requirements, a court must weigh the competing policy interests of the finality of judgment against fundamental fairness in light of all of the facts." *Lonsdorf v. Seefeldt*, 47 F.3d 893, 897 (7th Cir. 1995). There is no dispute that TT prevailed at trial; the parties only dispute whether IB engaged in misconduct that prejudiced TT at trial.

A. Failure to Produce Hot Key Source Code

"[T]he failure to disclose information within the scope of proper discovery requests can, in certain circumstances, constitute grounds for a new trial" under Rule 60(b)(3). *Brandt*, 30 F.3d at 758. "In order to obtain this dramatic relief, the movant must demonstrate both that misconduct occurred and that it prejudiced him." *Id.*

Here, the evidence indicates TT knew about the hot key framework prior to trial. In his post-trial declaration, Fenn admits that prior to trial, TT knew of and understood "the term 'hotkey' . . . to refer to the user-definable mapping of actions (such as to buy or sell) onto keystrokes or mouse clicks…." (Dkt. 2220 at ¶ 10) (citing IB's produced source code and user documentation). While TT claims this meaning is categorically different from the hot key framework Stetsenko disclosed at trial, Stetsenko's discussion of the hot key framework at trial is entirely consistent with TT's understanding of hot keys prior to trial. Stetsenko explained that the hot key framework is a means to "connect user action, mouse or key stroke, with a tool" such that it allows IB to "track orders placed from a specific tool." (Trial Transcript at 2494). Thus, as TT already understood, the hot key framework is a means of connecting user actions to a mouse or key stroke. While TT claims it did not understand the relation hotkeys had to order originator tagging until trial, it fails to present clear and convincing evidence that this information gap was the result of IB's misconduct, rather than its own failure to ask adequate questions during discovery. TT knew IB implemented a system to connect user actions, such as entering an order, to mouse or key strokes. Yet, there is no indication TT ever asked *why* this hotkey system was implemented or whether it had any connection to order origination. If it had, perhaps TT would have understood, as Stetsenko testified at trial, that the hot key framework allowed IB to "track orders placed from a specific tool." (*Id.*)

According to TT, disclosure of the hot key source code prior to trial would have revealed that IB does not track orders by order entry tool, as IB had otherwise maintained. To verify this theory, Brumfield "spent hundreds of hours analyzing IB's entire platform and its numerous tools to map out tools that do not have order entry mechanisms, but for which IB attributes orders/trades." (Dkt. 2228 at 4–5). According to Brumfield, this post-trial investigation revealed that of the 38 order entry tools identified by IB, five tools were actually non-order entry tools that received credit for orders. (Dkt. 2146 at Ex. 24, ¶ 7) (Dkt. 2229 at ¶ 9). It is unclear, however, why this investigation could not have been performed earlier. All of the materials Brumfield relied on were produced prior to trial and admitted into evidence at trial. (Dkt. 2146 at Ex. 24, ¶¶ 7–8) (Dkt. 2229 at ¶¶ 8–9). Thus, notwithstanding the hot key code, TT had means prior to trial to discover that IB may not in fact track orders by order entry tool and it could have crossed IB's witnesses about this at trial. For example, Brumfield observes that although an IB witness testified at trial that Accumulate/Distribute is IB's "best" and "most advanced tool," "when we checked the admitted stat reports, Accumulate/Distribute was only responsible for .08% of IB's trades form June 2008–April 2019." (Dkt. 2229 at ¶ 12). He then concludes, "This enormous discrepancy with Accumulate/Distribute and its trades demonstrates the lack of correlation between tracking orders and trades by what tools the orders are submitted from and what tools the orders originate from." (*Id.*) TT, however, knew of Accumulate/Distribute prior to trial and it also had access to the referenced stat reports prior to trial. (*See* Trial Transcript at 1982) (referencing Petterfy's deposition testimony that "Accumulate Distribute is [IB's] most important tool."). Nothing prevented Brumfield from comparing IB's assertion that Accumulate/Distribute is its most valuable tool with the stat reports prior to trial and reaching the same conclusion he reaches post-trial.

Similarly, TT points to an excerpt of source code from Blotter, a tool within TWS, and maintains that it shows "that originators used by IB's order entry tools … are being overwritten by IB's unproduced code and reflect that IB's data is inaccurate[.]" (Dkt. 2138 at 9); (Dkt. 2140 at Ex. 15, ¶ 11). TT further cites an email regarding ChartTrader, another tool on a separate platform (IBKR Mobile), claiming it also supports discrepancies in the way IB tracks its orders. The Blotter code and ChartTrader email, however, were produced by IB prior to trial and it is not clear how IB's alleged failure to disclose the hot key framework prior to trial prevented TT from analyzing the code or email to determine potential discrepancies in IB's transactions data. Surely, TT cannot claim it had no reason to question IB's assertion that it accurately tracks orders by order entry tool, because TT vehemently challenged the accuracy of IB's transaction data at trial. (Trial Transcript at 4001–06). Once again, TT fails to demonstrate by clear and convincing evidence that IB's failure to produce the hot key code, as opposed to its own failure to ferret out information during discovery, prevented it from fully and fairly litigating its case.

Ultimately, however, TT failed to present clear and convincing evidence that IB failed to produce the hot key source code during discovery. IB presents declarations from Stetsenko, an IB programmer and software developer who worked on TWS, and Dr. Goldberg, a source code expert. (Dkt. 2162 at Exs. Q–R). Both individuals reviewed the source code provided by IB to TT and testified that it contains the generic and BookTrader-specific hot key code. (*Id*. at Ex. Q, ¶¶ 6–8); (*Id*. at Ex. R, ¶¶ 13–21). This position receives support from the numerous filenames produced to TT with the term "hotkey" in the description. (*Id*.) TT presents rebuttal testimony from its own source code expert, Fenn, who opines that notwithstanding the appearance of the term "hotkey" in the produced source code, "IB has not produced the source code framework that reflects how the TWS source code actually tags (assigns) a given trade to a TWS tool based on an action taken in a different tool." (Dkt. 2220 at Ex. B ¶ 12). In Dr. Goldberg's expert opinion, however, the produced code "includes code relating to 'originator' field associations to indicate an order was placed using BookTrader" such that TT could "determine that the originator tags for BookTrader are associated with Hot Key functionality[.]" (Dkt. 2162 at Ex. R, ¶¶ 13, 19, 22–26). Fenn attempts to point out multiple technical flaws in Dr. Goldberg's analysis, (Dkt. 2220 at Ex. B ¶¶ 15–21), but fails to provide any explanation or analysis of his own for why he believes the produced source code does not contain a true hot key framework. Thus, even if the Court were to discount Dr. Goldberg's testimony, it has no factual basis to credit Fenn's opinion. At best, there is conflicting expert testimony regarding whether IB produced the hot key source code, which is insufficient to satisfy the clear and convincing evidence standard for a new trial. TT's new trial motion premised on IB's discovery misconduct is denied.

B. False Testimony Regarding Order Tracking

TT maintains it is also entitled to a new trial because IB's witnesses falsely testified at trial that IB accurately tracks BookTrader orders based on what tool is used to submit the order, when in fact, IB tracks orders based on origination tool. In support of its position, TT cites (1) Stetsenko's trial testimony; (2) Brumfield's investigation revealing IB credits orders to non-order entry tools; (3) an email regarding ChartTrader and Blotter source code; and (4) other documents uncovered post-trial.

Beginning with Stetsenko's trial testimony, Stetsenko testified:

> Q: Sir, you talked about IB having a mechanism to track commission— commissions attributable to Order Entry tools, right?
>
> A: Attributable to trading tools, not Order Entry tools.
>
> Q: To what?
>
> A: To trading tools.
>
> Q: Oh, it tracks more than just Order Entry tools. It's just trading tools in general, right?
>
> A: So it tracks orders placed from trading tools.
>
> Q: Okay. But could a trading tool be something that doesn't allow you to enter orders?
>
> A: Yeah.

(Trial Transcript at 2551–52). TT claims this is the first time IB disclosed that it does not track orders by order entry tool. In his post-trial declaration, however, Stetsenko explains: "I was making a distinction in my testimony between trading tool and the particular tool in TWS called 'Order Entry' which is a trading tool for placing orders." (Dkt. 2162 at Ex. Q, fn. 3). TT provides no reason to discredit this explanation and the transcript, which both parties had an opportunity to review and correct, also capitalizes "Order Entry", presumably referring to the specific tool, rather than order entry tools in general.

Next, Brumfield's post-trial investigation of IB's stat reports apparently revealed that of the 38 order entry tools identified by IB, five tools were actually non-order entry tools that nonetheless received credit for orders. (Dkt. 2146 at Ex. 24, ¶ 7) (Dkt. 2229 at ¶ 9). In his post-trial declaration, however, Stetsenko maintains "Brumfield is wrong—all of the tools he says are "non-order entry" tools are used by users to place orders. (Dkt. 2162 at Ex. Q, ¶ 22). Stetsenko explains that there are two types of order entry tools in TWS: "(a) those that are self-contained (i.e. they have their own order entry mechanism); and (b) those that are intended for order placement but do not have their own graphical order entry mechanism and thus use another IB tool for that purpose[.]" (*Id.*) For both categories, "the order is correctly tagged with the originator tag of the tool it originated from, not any other tool." (*Id.*) TT accepts Stetsenko's explanation, but argues that it proves that IB tracks orders by origination tool rather than order entry tool. TT seemingly ignores, however, that BookTrader is in the first category of tools, meaning that for orders placed through BookTrader the origination tool and order entry tool are the same. (*See id.*) Brumfield acknowledges this fact in his declaration: "A tool can both originate and submit an order, which is the case for tools in category one." (Dkt. 2229 at ¶ 10). Thus, even if TT is correct that tracking by origination tool skews IB's transaction data, any distinction between origination and order entry tools does not impact BookTrader trades and consequently, cannot establish by clear and convincing evidence that IB presented false trial testimony regarding the way it tracks such trades.

Similarly, the ChartTrader email and Blotter code are irrelevant to the manner in which IB tracks BookTrader trades. ChartTrader and Blotter are separate tools from BookTrader and ChartTrader is on an entirely separate platform, IBKR Mobile. (Dkt. 2162 at Ex. Q, ¶¶ 11–12). Further, unlike BookTrader, ChartTrader and Blotter operate akin to the second category of tools described by Stetsenko in which orders are or can be routed through a separate order entry tool. (*Id*. at fn. 5) (orders placed through IBKR Mobile are routed through the separate tool OrderEntry); (*id*. at ¶ 12) (Blotter allows orders to be submitted through the separate tool OrderTicket) (*see also* Dkt. 2162 at 8). Any discrepancies in order tracking suggested by this evidence cannot establish by clear and convincing evidence that IB presented false testimony regarding BookTrader order tracking at trial. Moreover, as the Court has already explained herein, nothing prevented Brumfield from performing his investigation or TT analyzing the ChartTrader email and Blotter code prior to trial and using them to cross IB's witnesses. Consequently, TT cannot show by clear and convincing evidence that its alleged inability to fully and fairly litigate its case was caused by IB's false testimony, as opposed to the shortcomings in its own trial preparation.

Finally, TT maintains that since trial, it "has uncovered even more evidence in IB's 3 million pages of production documents that further demonstrate the falsity of IB's witnesses' testimony." (Dkt. 2228 at 10). By TT's own admission, it had access to these documents prior to trial and could have crossed IB's witnesses regarding any perceived contradictions at trial. That TT failed to uncover such documents or use them at trial is a result of its own failing, rather than any misconduct by IB. TT fails to present clear and convincing evidence that IB does not track BookTrader orders based on order entry tool, and thus, fails to demonstrate that IB presented false testimony during trial. TT also fails to demonstrate by clear and convincing evidence that IB's misconduct, as opposed to it own actions, prejudiced TT. For these reasons, TT's new trial motion premised on IB's false trial testimony is denied.

II. Reliance on Noncomparable Agreements

TT also moves for judgment as a matter of law that because IB improperly relied on noncomparable settlement agreements the jury's low damages award was not supported by substantial evidence.[3] TT maintains that prior to trial, IB's damages expert

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[3] TT seemingly abandons this argument, as well as its argument regarding foreign damages addressed below, in its reply brief. (*See* Dkt. 2228). Arguments abandoned in a reply brief are generally deemed waived. *See e.g., United States v. Farris*, 532 F.3d 615, 619 (7th Cir. 2008). In an effort to be thorough, however, the Court briefly addresses them nonetheless.

Brett Reed, opined that only three agreements were comparable to the July 2004 hypothetical negotiation (Patsystems, NinjaTrader; and Strategy Runner), but during trial testified that as many as 35 agreements were comparable to the hypothetical negotiation. (*See* Trial Transcript at 3198, 3208–13). According to TT, this "surprise attack was contrary to law, because IB never showed—before trial or during trial—that any agreement but the three mentioned above were comparable." (Dkt. 2138 at 13).

TT raised this exact issue during trial. (*See* Dkt. 2092). Rejecting TT's motion to prevent Reed from relying on these alleged noncomparable agreements, the Court observed:

> TT argues Reed cannot rely on noncomparable licensing agreements, i.e., those other than the PatSystems, Strategy Runner, and NinjaTrader agreements, to support his reasonable royalty assessment. As a threshold matter, this issue should have been raised in a *Daubert* motion, the deadline for which has long passed. Regardless, Reed does not use the agreements to support his ultimate reasonable royalty assessment. Rather, the agreements are used to show that the $50 minimum and 10 cent royalty Lawton used in her royalty assessment are flawed. TT also argues that the manner in which Reed seeks to rely on

> the agreements was not disclosed in his report. Reed's demonstrative slides indicate he will use the agreements to show that other competitors did not agree to pay a $50 minimum/monthly fee or a 10 cent royalty. These opinions were adequately disclosed in Reed's report. (*See* Dkt. 2099-2 at 194–196).

(Dkt. 2102).

The Court reiterates that Reed disclosed the relevance of the 35 agreements in his expert report, including tabs detailing the particulars of each agreement, well before trial. (Dkt. 2140 Ex. 21 at 194–96). Specifically, Reed used the agreements to provide context for his opinion that the 10 cent running royalty rate and $50 minimum monthly fee that Lawton used for her royalty rate are flawed. *Id.* This testimony is consistent with Reed's trial testimony. (*See* Trial Transcript at 3209–11, 3326–27, 3353–54). There was no surprise to TT here—it was on notice of Reed's view that other agreements were comparable and relevant for purposes of evaluating the competing royalty rates advanced by the parties. [4]

[4] It is notable that while the jury seemingly accepted Reed's view that the $50 monthly minimum fee should not be included as part of the royalty calculation, the jury rejected his view that a 5 cent royalty rate was appropriate, opting instead to award damages at the 10 cent royalty rate advanced by Lawton. *Compare* (Dkt. 2134) (jury award of $6,610,985) *with* (Trial Transcript at 3330, 3273) (Reed testifying that at a

TT takes particular issue with IB's use of the TD Ameritrade agreement at trial. TT moved to prevent Reed from testifying about the TD Ameritrade agreement in a *Daubert* motion. (Dkt. 1666). The Court found the issue was moot given that Reed relied on the agreement to support his conclusions regarding the 2010 hypothetical negotiation, which, at the time of the Court's ruling, was outside the scope of the case. (*See* Dkt. 1987 at 2). During trial, the Court prevented Reed from discussing this agreement in the context of the 2004 hypothetical negotiation, finding Reed had not adequately disclosed the relevance of the TD Ameritrade agreement to the 2004 negotiation. (*See* Trial Transcript at 3312). Notwithstanding this ruling, the Court allowed IB to argue the TD Ameritrade agreement's comparability during closing arguments given testimony from other witnesses at trial about the agreement, including TT's damages expert, Catherine Lawton. (*See id*. at 4015) (s*ee also id*. at 1116, 1186, 1224–25, 1791–93). Testimony regarding the comparability of the TD Ameritrade agreement, as well as the other licensing agreements, was highly relevant to two of the four *Georgia-Pacific* factors used to determine a reasonable royalty: "[t]he royalties received by the patent owner for the licensing of the patent-in-suit" and "[t]he licensor's established policy and marketing program to

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reasonable royalty rate of 10 cents per user in the United States, based on the amount of IB customers who actually used Book Trader, the damages amount would be $6,610,985). Thus, the effect of testimony about these other agreements was not as harmful to TT's position as it advances.

maintain its patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly." *Georgia-Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). Although TT disputed the comparability of these agreements, it did not present evidence that the license agreements were "radically different from the hypothetical agreement under consideration" such that they warranted exclusion. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1316 (Fed. Cir. 2011) (internal quotations and citation omitted). TT had the opportunity to, and did in fact, cross IB's witnesses regarding these agreements and further presented *affirmative* evidence regarding their noncomparability. (*See* Trial Transcript at 3353–58, 3736–39). Contrary to TT's assertion, IB's reliance on the agreements was well disclosed and the Court did not err in permitting such testimony at trial.

III. Foreign Damages

Finally, TT moves for judgment as a matter of law that TT may recover for foreign damages proximately caused by IB's domestic infringement.[5] TT's damages expert, Catherine Lawton, opined in her expert report that IB's foreign conduct of distributing the infringing BookTrader tool to customers outside

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[5]TT also abandoned this argument in its reply brief. (*See* Dkt. 2228); *see supra* note 3.

the United States was the direct, foreseeable result of IB's domestic acts of infringements, *i.e.* making BookTrader at its headquarters in the United States. (Dkt. 2138 at Ex. 23, ¶ 768). In response to a *Daubert* motion filed by IB, the Court excluded Ms. Lawton's opinion on this issue:

> Generally, even after establishing one or more acts of infringement in the United States, a patentee may not recover damages for worldwide sales of the patented invention on the theory that "those foreign sales were the direct, foreseeable result of [the infringer's] domestic infringement." *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1371 (Fed. Cir. 2013). In *WesternGeco LLC v. ION Geophysical Corp.*, however, the Supreme Court held that a patent owner claiming infringement under 35 U.S.C. § 271(f)(2) may recover lost foreign profits proximately caused by domestic infringement. 138 S. Ct. 2129, 2139 (2018). As this Court has previously observed, however, the holding in *WesternGeco*, "is of limited value" to the present case involving infringement under § 271(a) and reasonable royalty damages. *See Trading Techs. Int'l, Inc. v. IB LLC*, No. 10 C 715, 2020 WL 7408745, at n.2 (N.D. Ill. Dec. 17, 2020). The Supreme Court and Federal Circuit have

> not yet held that *WesternGeco* overruled *PowerIntegrations* with respect to infringement under § 271(a), and the Court declines to reach that conclusion in the absence of such precedent. Lawton's inclusion of foreign users in her royalty base premised on a theory of foreseeable foreign consequences of infringement is premised on a misapplication of controlling law. To the extent her ultimate conclusion relies on this theory, it must be excluded.

(Dkt. 1984 at 3). TT argues the "Court's *Daubert* ruling was harmful error because the jury was precluded from hearing Ms. Lawton's opinion that, under *WesternGeco*, the activities of foreign residents caused foreseeable injury to TT arising from IB's domestic infringement." (Dkt. 2138 at 14). The legal landscape since this Court's *Daubert* opinion, however, has not changed. While some courts have extended the reasoning in *WesternGeco* to § 271(a) infringement, *see e.g., CelaNova Biosciences Inc.*, No. 1:18-CV-303-LY, 2020 WL 1644003, at *3 (E.D. Tex. April 2, 2020), there is still no federal precedent holding that *WesternGeco* overruled previous Federal Circuit precedent with respect to damages available for § 271(a) infringement. Notably, infringement under § 271(f), unlike infringement under § 271(a), explicitly contemplates limited foreign activities that are actionable in the United States. (*See* 35 U.S.C. § 271(f)). Several courts to consider the issue have agreed that *Power Integrations* and its progeny remain binding precedent even after *WesternGeco. See e.g., LC Intell. Prop. v. Micron Tech., Inc.*, No. 14-cv-03657, 2019 WL 2437073, at *3 (N.D. Cal. June 11, 2019) ("[W]hether … [*WesternGeco*] implicitly overruled [*Power Integrations*] remains to be seen, but at this time controlling law holds that [plaintiff] may not seek damages under § 271(a) based on [defendant]'s wholly foreign sales."); *Abbott Cardiovascular Sys., Inc. v. Edwards Lifesciences Corp.*, No. CV 19-149 (MN), 2019 WL 2521305, at *18 (D. Del. June 6, 2019); *Kajeet, Inc. v. Qustodio, LLC*, No. SA CV 18-1519-JAK (PLAX),2019 WL 8060078, at *13 (C.D. Cal. Oct. 22, 2019); *California Inst. of Tech. v. Broadcom Ltd.*, No. CV 16-3714-GW(AGRX), 2019 WL 11828237, at *5 (C.D. Cal. June 17, 2019). For these reasons, the Court's *Daubert* ruling excluding testimony regarding entirely foreign sales and resultant damages remains sound.

CONCLUSION

For the foregoing reasons, TT's motion for new trial [2138] is denied.

/s/ Virginia M. Kendall
Virginia M. Kendall
United States District Judge

Date: February 22, 2022

APPENDIX C – MEMORANDUM OPINION AND ORDER OF THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, FILED JUNE 17, 2021

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

No. 10 C 715

TRADING TECHNOLOGIES INTERNATIONAL, INC.,
Plaintiff
v.

IBG, LLC, et al.
Defendants.

Judge Virginia M. Kendall

MEMORANDUM OPINION AND ORDER

Plaintiff Trading Technologies ("TT") brought this action to recover damages caused by Defendant IBG's alleged infringement of four TT patents: the '132, '304, '411, and '996 Patents. Before the Court are the parties' cross motions for summary judgment regarding patent eligibility. TT moves for summary judgment that the patents in suit are patent eligible as a matter of law [1359]. IBG moves for summary judgment that the '411 and '996 Patents are patent ineligible [1387]. For the following reasons, TT's motion is granted in part and denied in part and IBG's motion is granted.

BACKGROUND

I. Patent Claims

The patents at issue are part of the same patent family, share a common patent specification, and are "directed to the electronic trading of commodities." (Dkt. 1119 at Ex. C) (Dkt. 1120 at Ex. Q, Ex. S, Ex. U).[1] They recite "[a] method and system for reducing the time it takes for a trader to place a trade when electronically trading on an exchange, thus increasing the likelihood that the trader will have orders filled at desirable prices and quantities." (*Id.*) Specifically, the patents claim a graphical user interface ("GUI") "displaying market depth on a vertical or horizontal plane, which fluctuates logically up or down, left or right across the plane as the market price fluctuates" and "a static display of prices corresponding to the plurality of bids and asks." (*Id.*) The "pluralities of bids and asks are dynamically displayed in alignment with the prices corresponding thereto." (*Id*). "This allows the trader to trade quickly and efficiently." (*Id.*) The invention disclosed by the patents "can be implemented on any existing or future terminal or

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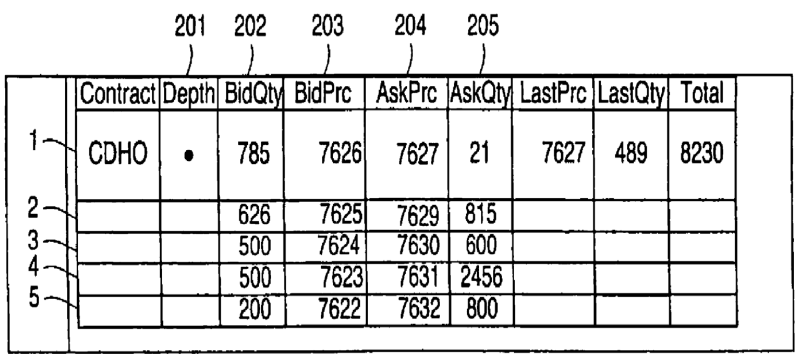
[1] While the Court would normally rely on the parties' Rule 56.1 Statements of Material Fact on a motion for summary judgment, the Court declines to heavily rely on them in this matter—quite simply they are not useful. Nearly every statement is disputed without regard to whether the basis for dispute affects the outcome of the present motions. Instead, the Court relies on the underlying evidence itself to glean the material facts.

device" and "[t]he physical mapping of [the] information to a screen grid can be done by any technique known to those skilled in the art." (*Id.*) ("The invention is not limited by the method used to map the data to the screen display.").

The patents in suit disclose the following prior art GUI display:

FIG. 2

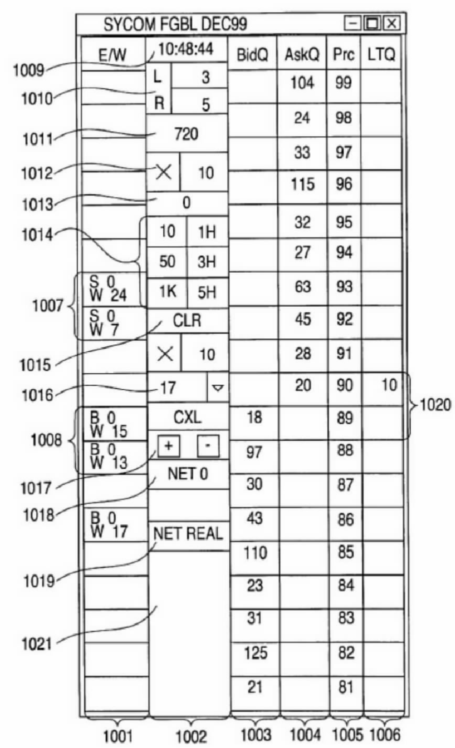


	Contract	Depth	BidQty	BidPrc	AskPrc	AskQty	LastPrc	LastQty	Total
1	CDHO	•	785	7626	7627	21	7627	489	8230
2			626	7625	7629	815			
3			500	7624	7630	600			
4			500	7623	7631	2456			
5			200	7622	7632	800			

(Dkt. 1119 at Ex. C) (Dkt. 1120 at Ex. Q, Ex. S, Ex. U). The grid depicts the inside market (highest ask and bid prices) and the market depth of a given commodity being traded. (*Id.*) (*Id.)* On a conventional trading screen like Figure 2, the fluctuation of market prices "results in rapid changes in the price and quantity fields within the market grid[,]" which creates a problem: "If a trader intends to enter an order at a particular price, but misses the price because the market prices moved before he could enter the order, he may lose hundreds, thousands, even millions of dollars." (*Id.*)

In contrast, the disclosed invention, as illustrated by Figure 3 below, displays bid and ask columns and inside market indicators (area 1020) that move relative to a static price axis, "increas[ing] the speed of trading and the likelihood of entering orders at desired prices with desired quantities." (*Id.*)

FIG. 3



Despite the common specification language, the reference to “a static display of prices” denotes a slightly different scope with regards to the ‘132 and ‘304 Patents than to the ‘411 and ‘996 Patents. The ‘132 and ‘304 Patents recite a GUI with a static axis displaying prices that does not move when the inside market changes, unless by a manual re-centering or re-positioning command. (Dkt. 1119 at Ex. C) (Dkt. 1120 at Ex. Q) (Dkt. 1448 at ¶ 23). On the other hand, the ‘411 and ‘996 Patents encompass, but do not require, GUI’s with price axes that automatically recenter. (Dkt. 1527 at ¶¶ 14–15).

Representative claim one of the ‘411 Patent recites:

> A method of displaying market information relating to and facilitating trading of a commodity being traded on an electronic exchange, the method comprising:
>
> receiving, by a computing device, market information for a commodity from an electronic exchange, the market information comprising an inside market with a current highest bid price and a current lowest ask price;
>
> displaying, via the computing device, a bid display region comprising a plurality of graphical locations, each graphical location in the bid display

region corresponding to a different price level of a plurality of price levels along a price axis;

displaying, via the computing device, an ask display region comprising a plurality of graphical locations, each graphical location in the ask display region corresponding to a different price level of the plurality of price levels along the price axis;

dynamically displaying, via the computing device, a first indicator representing quantity associated with at least one trade order to buy the commodity at the current highest bid price in a first graphical location of the plurality of graphical locations in the bid display region, the first graphical location in the bid display region corresponding to a price level associated with the current highest bid price;

upon receipt of market information comprising a new highest bid price, moving the first indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the bid display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new highest bid price, wherein the second graphical location is different from the first graphical location in the bid display region;

dynamically displaying, via the computing device, a second indicator representing quantity associated with at least one trade order to sell the commodity at the current lowest ask price in a first graphical location of the plurality of graphical locations in the ask display region, the first graphical location in the ask display region corresponding to a price level associated with the current lowest ask price;

upon receipt of market information comprising a new lowest ask price, moving the second indicator relative to the price axis to a second graphical location of the plurality of graphical locations in the ask display region, the second graphical location corresponding to a price level of the plurality of price levels associated with the new lowest ask price, wherein the second graphical location is different from the first graphical location in the ask display region;

> displaying, via the computing device, an order entry region comprising a plurality of graphical areas for receiving single action commands to set trade order prices and send trade orders, each graphical area corresponding to a different price level along the price axis;
>
> and selecting a particular graphical area in the order entry region through a single action of the user input device to both set a price for the trade order and send the trade order having a default quantity to the electronic exchange.

(Dkt. 1120 at Ex. S).

Representative claim 1 of the ‘996 Patent recites:

> A computer readable medium having program code recorded thereon for execution on a computer having a graphical user interface and a user input device, the program code causing a machine to perform the following method steps:
>
> receiving market information for a commodity from an electronic exchange, the market information

comprising an inside market with a current highest bid price and a current lowest ask price;

receiving an input from a user that designates a default quantity to be used for a plurality of trade orders;

dynamically displaying a first indicator in one of a plurality of locations in a bid display region, each location in the bid display region corresponding to a price level along a static price axis, the first indicator representing quantity associated with at least one order to buy the commodity at the current highest bid price;

dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a price level along the static price axis, the second indicator representing quantity associated with at least one order to sell the commodity at the current lowest ask price;

displaying the bid and ask display regions in relation to a plurality of price levels arranged along the static price axis such that when the inside market changes, the price levels along the static price axis do not change positions and at least one of the first and second indicators moves in the bid or ask display regions relative to the static price axis;

displaying an order entry region aligned with the static price axis comprising a plurality of areas for receiving commands from the user input device to send trade orders, each area corresponding to a price level of the static price axis;

and receiving a plurality of commands from a user, each command sending a trade order

to the electronic exchange, each trade order having an order quantity based on the default quantity without the user designating the default quantity between commands, wherein each command results from selecting a particular area in the order entry region corresponding to a desired price level as part of a single action of the user input device with a pointer of the user input device positioned over the particular area to both set an order price parameter for the trade order based on the desired price level and

> send the trade order to the electronic exchange.

(*Id*. at Ex. U).

II. IBG's Prior Art Evidence

Prior to the patents in suit, specialists at the New York Stock Exchange ("NYSE") maintained physical books with pre-printed vertical price columns and used them to plot, by hand, bid and ask quantities along the price column. (Dkt. 1527 at ¶ 33). By 1992, the NYSE implemented an electronic version of the specialist's book called the "Display Book." (*Id*. at ¶ 34). Another exchange, INTEX, also implemented a GUI modeling the specialist's book. (*Id*. at ¶ 35). Pen-and-paper books, similar to the specialist's book, were also used at the Tokyo Stock Exchange, which were then converted to an electronic version. (*Id*. at ¶¶ 37–38).

LEGAL STANDARD

Summary judgment is proper when "the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *see, e.g.*, *Reed v. Columbia St. Mary's Hosp.*, 915 F.3d 473, 485 (7th Cir. 2019). The parties genuinely dispute a material fact when "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Daugherty v. Page*, 906 F.3d 606, 609–10 (7th Cir. 2018) (citing *Anderson v. Liberty*

Lobby, Inc., 477 U.S. 242, 248 (1986)). In determining whether a genuine issue of material fact exists, the Court draws all reasonable inferences in favor of the party opposing the motion. *Anderson*, 477 U.S. at 255; *Zander v. Orlich*, 907 F.3d 956, 959 (7th Cir. 2018).

DISCUSSION

Whether a concept is patent eligible is a question of law. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). Under 35 U.S.C. § 101, "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," is eligible for a patent on that invention. "[L]aws of nature, physical phenomena, and abstract ideas," however, are patent ineligible concepts. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (internal quotations and citation omitted). *Alice* articulates a two-step process to determine whether a claimed invention is patent eligible. *Id.* at 217. First, the Court must "determine whether the claims at issue are directed to a patent-ineligible concept." *Id.* at 218. A finding of patent eligibility at step one ends the inquiry. *See e.g., Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). In the context of computer programs, claims that improve the way a computer operates or solve a technological problem are patent eligible, but claims that merely use a computer to implement well-known business or economic practices are not. *Id.* "[I]mproving a user's experience while using a computer application is not, without more, sufficient to render the claims directed to an improvement in computer functionality." *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020).

If the claims involve a patent-ineligible concept, the Court must then "consider 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*, 573 U.S. at 217 (internal quotations and citation omitted). At this step, the Court must "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*. at 217–18 (internal quotations and citation omitted). The party challenging the validity of a patent—in this case, IBG—bears the burden of establishing invalidity, including patent ineligibility, by clear and convincing evidence. *See* 35 U.S.C § 3582 (establishing a rebuttable presumption of patent validity and placing the burden of establishing invalidity on the party asserting invalidity).

I. <u>The '132 and '304 Patents</u>

The Federal Circuit has already held that the '132 and '304 Patents are eligible under 35 U.S.C. § 101. *Trading Techs. Int'l, Inc. v. CQG, Inc.,* 675 F. App'x 1001, 1002 (Fed. Cir. 2017). In *CQG* the court observed that the '132 and '304 Patents "do not simply claim displaying information on a graphical user interface[,]" but are directed to "resolv[ing] a specifically identified problem in the prior state of the art[,]" namely, "that the best bid and best ask prices would change based on updates received from the market." *Id.* at 1004; *Trading Techs. Int'l, Inc. v. CQG, Inc.*, No. 05-CV-4811, 2015 WL 774655, at *4 (N.D. Ill. Feb. 24, 2015), *aff'd*, 675 F. App'x 1001 (Fed. Cir. 2017). As the district court explained:

> There was a risk with the prior art GUIs that a trader would miss her intended price as a result of prices changing from under her pointer at the time she clicked on the price cell on the GUI. The patents-in-suit provide a system and method whereby traders may place orders at a particular, identified price level, not necessarily the highest bid or the lowest ask price because the invention keeps the prices static in position, and allows the quantities at each price to change.

CQG, 2015 WL 774655, at *4. Thus, the court concluded, the '132 and '304 Patents were patent eligible under *Alice* step one and not directed to an abstract idea. *CQG*, 675 F. App'x at 1004.

IBG argues *CQG* does not compel a finding of eligibility in this case because it is a nonprecedential opinion and involved a different set of facts than those before this Court. First, the Court may (and should) rely on nonprecedential opinions interpreting the same patent to ensure the uniform treatment of that patent. *See e.g., Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1337 (Fed. Cir. 1999). With respect to the '132 and '304 patents, the Court has no qualms in relying on *CQG* which involved the same legal question (§ 101 eligibility) and the same patents.

Regarding the distinct factual record in *CQG*, IBG claims an independent *Alice* inquiry is required because the *CQG* court did not consider the evidence of prior art before this Court. Step one of the *Alice* framework, however, "does not require an evaluation of the prior art or facts outside of the intrinsic record regarding the state of the art at the time of the invention." *CardioNet, LLC v. InfoBionic, Inc*, 955 F.3d 1358, 1374 (Fed. Cir. 2020), *cert. denied sub nom. InfoBionic, Inc. v. Cardionet, LLC*, 141 S. Ct. 1266 (2021). Although *CQG* court did not have evidence of every alleged prior art reference IBG presents, it did have some evidence of "prior art GUI's that showed market dept and the inside market in a table or grid," including the INTEX system. (Dkt. 1527-4). More importantly, the court considered the intrinsic evidence of prior art disclosed by the patents themselves in Figure 2. While the *CQG* court found it relevant that the '132 and '304 Patents had "no pre-electronic trading analog" and were "not an idea that has long existed," *CQG*, 675 F. App'x at 1004, more evidence regarding prior art does not compel a different conclusion as to eligibility: "[t]he analysis under *Alice* step one is whether the claims as a whole are directed to an abstract idea, *regardless of* whether the prior art demonstrates that the idea or other aspects of the claim are known, unknown, conventional, unconventional, routine, or not routine." *CardioNet*, 955 F.3d at 1372 (internal quotations and citation omitted) (emphasis added). The Court sees no reason to disrupt the Federal Circuit's holding regarding the eligibility of the '132 and '304 Patents based solely on the prior art evidence presented by IBG. TT's motion for summary judgment is granted as to the '132 and '304 Patents.

II. <u>The '411 and '996 Patents</u>

A. <u>*Alice* Step One: Abstract Idea</u>

The issue of patent eligibility with respect to the '411 and '996 Patents is one of first impression. IBG argues the '411 and '996 Patents are directed to the unpatentable abstract idea "of placing an order based on observed, dynamically updated market information" rather than to an improvement in computer technology. (Dkt. 1387 at 10). TT asserts the '411 and '996 Patents are directed to technological improvements in speed, accuracy, and usability. (Dkt. 13 at 7).

The representative claims of the '411 and '911 patents respectively claim "[a] method of displaying market information relating to and facilitating trading of a commodity being traded on an electronic exchange" and "[a] computer readable medium having program code recorded thereon for execution on a computer having a graphical user interface and a user input device," that recite steps of receiving market information for a commodity from an electronic exchange and displaying such information in a dynamic way. (Dkt. 1120 at Ex. S, Ex. U). The mere process of gathering information and displaying the results, however, is unpatentable. *See e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). While TT claims the asserted invention improves the speed, accuracy, and usability of trading GUIs, it is clear that the goal of providing market information in the specific configuration recited by the patents is to "improv[e] the trader, not the functioning of the computer." *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1378, 1383 (Fed. Cir. 2019). For example, both patents disclose "[a] method and system for reducing the time it takes for a *trader* to place a trade when electronically trading on an exchange, thus increasing the likelihood that the *trader* will have orders filled at desirable prices and quantities." (Dkt. 1120 at Ex. S, Ex. U) (emphasis added). Similarly, the patents explain that the invention "allows the *trader* to trade quickly and efficiently" and that "[t]rends in the trading of the commodity and other relevant characteristics are more easily identifiable by the *user* through the use of the present invention." (*Id.*) (emphasis added). Because the claims of both patents "are focused on providing information to traders in a way that helps them process information more quickly, not on improving computers or technology[,]" they are directed towards the abstract idea of placing orders on an electronic exchange. *Trading Techs.*, 921 F.3d at 1383.

TT argues that as the *CQG* court found with respect to the '132 and '304 Patents, the '411 and '996 Patents are patent eligible because they solve the missing-the-intended-price problem. While the '411 and '996 Patents are continuations of the '132 and '304 Patents and share a common specification, the specific claims of the '132 and '304 Patents are narrower in that they recite a truly static price axis. *Trading Techs. Int'l, Inc. v. IBG LLC*, 921 F.3d 1084, 1095 (Fed. Cir. 2019) ("Eligibility depends on what is claimed, not all that is disclosed in the specification."). It is not clear, and TT does not explain, how the '411 and '996 Patents, which include price axes that automatically move, solve the missing-the-price problem. *See IBG LLC v. Trading Techs. Int'l, Inc.*, No. CBM2016-00054, 2017 WL 4708078, at *15 (P.T.A.B. Oct. 17, 2017), *affd Trading Techs. Int'l, Inc. v. IBG LLC*, 767 F. App'x 1006, 1007 (Fed. Cir. 2019) (rejecting *CQG* as persuasive authority on the basis that '132 and '304 Patents recited narrower claims than the related patent at issue which "d[id] not recite the static price axis feature…."). Moreover, even the *CQG* court noted that the '132 and '304 Patents presented a "close question [ ] of eligibility…." *CQG*, 675 F. App'x at 1006. Thus, the Court is not inclined to extend the reasoning of *CQG*, a nonprecedential opinion, to related patents that do not share the same claim limitations (a static price axis).

TT also cites another nonprecedential decision, *IBG LLC v. Trading Techs. Int'l, Inc.*, 757 F. App'x 1004, 1006 (Fed. Cir. 2019), in which the Federal Circuit found that the '411 and '996 patents did not qualify for Covered Business Method ("CBM") review because they recited technological inventions. *IBG*, however, did not concern § 101 eligibility. *Id*. While the inquiries under CBM review and § 101 eligibility are related, the *IBG* court's decision does not dictate a finding of § 101 eligibility here.

The Court is hesitant to rely on *IBG* to support a finding of § 101 eligibility particularly in light of subsequent Federal Circuit decisions finding related TT patents ineligible under § 101. TT' '768 and '382 Patents are continuations of the '132 Patent and share the same specification as the patents in suit. (Dkt. 1537 at ¶¶ 56, 63) (*Id*. at Ex. 7, Ex. 74). Like the '411 and '996 Patents, they recite steps of receiving and dynamically displaying market information along a price axis that is not required to remain static. (Dkt. 1401 at Ex. 7, Ex. 74). After the *IBG* decision, the Federal Circuit held that the '768 and '382 Patents were patent ineligible because they "focus on improving the trader, not the functioning of the computer." *Trading Techs.*, 767 F. App'x at 1007; *Trading Techs. Int'l, Inc. v. IBG LLC*, 771 F. App'x 493 (Fed. Cir. 2019). Thus, although *IBG* found that the '411 and '996 Patents recited technological innovations for purposes of CBM review, the Federal Circuit's subsequent decisions regarding nearly identical patent claims support a finding of § 101 ineligibility for the '411 and '996 Patents.

B. *Alice* Step Two: Innovative Concept

As the ‘411 and ‘996 Patents are directed to the abstract idea of placing orders on an electronic exchange, the Court must also consider whether the elements of the representative claims, individually and as an ordered combination, recite an innovative concept. The representative claims of the ‘411 and ‘996 Patents recite steps of (1) receiving information, (2) dynamically displaying such information along a price axis on a GUI, and (3) displaying an order entry region through which traders can place orders with a single action by the trader.

The mere receipt of information is not innovative. Here, the patents disclose that “[i]rrespective of what interface a trader uses to enter orders in the market, each market supplies and requires the same information to and from every trader.” (Dkt. 1120 at Ex. S, Ex. U). Displaying and plotting information available to all is no more inventive. *See Elec. Power*, 830 F.3d at 1353. This is particularly so, where “the system of the present invention can be implemented on any existing or future terminal or device” and “[t]he physical mapping of … information to a screen grid can be done by any technique known to those skilled in the art” of trading. (Dkt. 1120 at Ex. S, Ex. U). Finally, as Figure 2 discloses, a one-click order entry region on a GUI already existed at the time of the claimed invention. (*Id.*)

Considering the claim elements together, it is clear by comparing the prior art in Figure 2 and the claimed invention in Figure 3, that the invention merely claims a rearrangement of market information known to be displayed in a different format. (*Id.*) While this rearrangement has benefits over the prior art, the rearrangement is not innovative in that it solves a technical problem. *Cf. CQG*, 2015 WL 774655, at *5, *affd CGQ*, 675 Fed. App'x at 1004 ("[A]t least the 'static price axis' element of the ['132 and '304] patents in suit [i]s an 'inventive concept', which eliminated some problems of prior GUIs relating to speed, accuracy, and usability…."). It is innovative in the sense that it helps traders place trades more quickly and efficiently. (*See* Dkt. 1120 at Ex. S, Ex. U). An analysis of the elements of the representative claims confirms that the subject matter of the '411 and '996 Patents is ineligible under § 101. For that reason, IBG's motion for summary judgment is granted.

CONCLUSION

For the foregoing reasons, TT's Motion for Summary Judgment that the Claims of the Patents-in-Suit are Patent-Eligible [1359] is granted in part and denied in part. IBG's Motion for Summary Judgment of Unpatentability of U.S. Patent Nos. 7,676,411 and 7,813,996 [1387] is granted.

/s/ Virginia M. Kendall
Virginia M. Kendall
United States District Judge

Date: June 17, 2021

APPENDIX D – DENIAL OF PANEL REHEARING AND REHEARING EN BANC OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, FILED AUGUST 5, 2024

NOTE: This order is nonprecedential.

United States Court of Appeals for the Federal Circuit

HARRIS BRUMFIELD, TRUSTEE FOR ASCENT TRUST,
Plaintiff-Appellant

v.

IBG LLC, INTERACTIVE BROKERS LLC,
Defendants-Appellees

2022-1630

Appeal from the United States District Court for the Northern District of Illinois in No. 1:10-cv-00715, Judge Virginia M. Kendall.

ON PETITION FOR PANEL REHEARING AND REHEARING EN BANC

Before MOORE, *Chief Judge*, LOURIE, DYK, PROST, REYNA, TARANTO, CHEN, HUGHES, CUNNINGHAM, and STARK, *Circuit Judges*.[1]

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[1]Circuit Judge Newman and Circuit Judge Stoll did not participate.

PER CURIAM.

ORDER

Harris Brumfield filed a combined petition for panel rehearing and rehearing en banc. A response to the petition was invited by the court and filed by IBG LLC and Interactive Brokers LLC.

The petition was referred to the panel that heard the appeal, and thereafter the petition was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue August 12, 2024.

FOR THE COURT

August 5, 2024	/s/ Jarrett B. Perlow
Date	Clerk of the Court