

**United States Court of Appeals  
for the Federal Circuit**

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**TRADING TECHNOLOGIES INTERNATIONAL,  
INC.,**  
*Plaintiff-Appellant,*

**v.**

**OPEN E CRY, LLC, AND OPTIONSXPRESS  
HOLDINGS, INC.,**  
*Defendants-Appellees,*

**AND**

**TRADESTATION SECURITIES, INC., AND  
TRADESTATION GROUP, INC.,**  
*Defendants-Appellees,*

**AND**

**IBG, LLC, THINKORSWIM GROUP, INC.,  
TD AMERITRADE, INC., TD AMERITRADE  
HOLDING CORP., AND INTERACTIVE BROKERS,  
LLC,**  
*Defendants-Appellees,*

**AND**

**CQG, INC., AND CQGT, LLC,**  
*Defendants-Appellees,*

**AND**

**FUTUREPATH TRADING LLC,  
SUNGARD DATA SYSTEMS, INC.,  
SUNGARD INVESTMENT VENTURES LLC, AND  
GL TRADE AMERICAS, INC.,**  
*Defendants-Appellees,*

AND

**STELLAR TRADING SYSTEMS, LTD., AND  
STELLAR TRADING SYSTEMS, INC.,**  
*Defendants-Appellees,*

AND

**ESPEED MARKETS, LP,  
BGC CAPITAL MARKETS, LP, AND  
ECCOWARE LTD.,**  
*Defendants-Appellees,*

AND

**ROSENTHAL COLLINS GROUP, LLC,**  
*Defendant.*

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2012-1583

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Appeal from the United States District Court for the  
Northern District of Illinois in consolidated No. 10-CV-  
0715, Judge Virginia M. Kendall.

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Decided: August 30, 2013

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STEVEN F. BORSAND, Trading Technologies International, Inc., of Chicago, Illinois, argued for plaintiff-appellant. Of counsel on the brief were LEIF R. SIGMOND, JR., MICHAEL D. GANNON, PAUL A. KAFADAR, and SARAH E. FENDRICK, McDonnell Boehnen Hulbert & Berghoff LLP, of Chicago, Illinois. Of counsel were JENNIFER KURCZ and MATTHEW SAMPSON.

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Before LOURIE and PLAGER, *Circuit Judges*, and BENSON,  
*District Judge*.\*

LOURIE, *Circuit Judge*.

In this patent infringement action, Plaintiff-Appellant Trading Technologies International, Inc. (“TT”) appeals from the district court’s entry of summary judgment that (i) the asserted claims of TT’s U.S. Patents 7,676,411 (the “411 patent”), 7,693,768 (the “768 patent”), 7,904,374 (the “374 patent”), and 7,685,055 (the “055 patent”) are invalid for failure to comply with the written description requirement of 35 U.S.C. § 112; and (ii) prosecution history estoppel bars TT from asserting the ’055 patent against software products that include certain display functions. The district court premised both holdings on deference to our prior decision in *Trading Technologies International, Inc. v. eSpeed, Inc.*, 595 F.3d 1340 (Fed. Cir. 2010) (“*eSpeed*”), which considered two related patents from TT’s portfolio.

We conclude that *eSpeed* does not control the issues presented in this appeal, and the district court’s rulings based on that case are therefore incorrect. Accordingly, and as described more fully below, we reverse and remand for further proceedings.

## BACKGROUND

### A. The TT Patent Family

TT owns a number of related patents generally directed to software used for electronic trading on a commodities exchange, including the ’411, ’768, ’374, and ’055 patents at issue in this appeal. Issued between March 2010 and March 2011, those four patents claim priority

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\* Honorable Dee V. Benson, District Judge, United States District Court for the District of Utah, sitting by designation.

from U.S. Provisional Patent Application 60/186,322, filed on March 2, 2000, and U.S. Patent Application 09/590,692, which was filed on June 9, 2000, and later issued as U.S. Patent 6,772,132 (the "132 patent") on August 3, 2004. The '411, '768, and '374 patents all arose from a series of continuation applications stemming from the parent '132 patent. *See, e.g.,* '411 patent, at [63]. Accordingly, the '411, '768, and '374 patents share a common written description matching that of the progenitor '132 patent in all material respects. In contrast, the '055 patent traces its priority from the '132 patent as a continuation-in-part, *see* '055 patent, at [63], and as such, the '055 patent contains substantial new matter relative to the original written description of the '132 patent.

In general, the subject TT patents concern a graphical user interface that can display essential data from a commodities market and allow a user to enter electronic trade orders on an exchange. Drawings common to the '411, '768, '374, and '055 patents exemplify several key aspects of the disclosed displays:

FIG. 3

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

FIG. 4

| E/W          | 10:48:44 | BidQ | AskQ | Prc | LTQ |
|--------------|----------|------|------|-----|-----|
| L            | 3        |      | 104  | 99  |     |
| R            | 5        |      | 24   | 98  |     |
|              | 720      |      | 33   | 97  |     |
| X            | 10       |      | 115  | 96  |     |
|              | 0        |      |      |     |     |
|              | 10 1H    |      | 32   | 95  |     |
|              | 50 3H    |      | 27   | 94  |     |
| S 10<br>W 14 | 1K 5H    |      | 63   | 93  | 10  |
|              | CLR      | 43   |      | 92  |     |
| X            | 10       | 125  |      | 91  |     |
|              | 17       | 97   |      | 90  |     |
| B 0<br>W 15  | CXL      | 18   |      | 89  |     |
| B 0<br>W 13  | + -      | 97   |      | 88  |     |
|              | NET 0    | 30   |      | 87  |     |
| B 0<br>W 17  | NET REAL | 43   |      | 86  |     |
|              |          | 110  |      | 85  |     |
|              |          | 23   |      | 84  |     |
|              |          | 31   |      | 83  |     |
|              |          | 125  |      | 82  |     |
|              |          | 21   |      | 81  |     |

*E.g.*, '411 patent, figs. 3, 4. Figure 3 depicts a trading display that conveys up-to-date market information, including the pending bids and offers at various price points. Column 1005, labeled "Prc," represents various contract prices for the commodity of interest. *Id.* col. 7 ll. 55–58. Adjacent to the price column are bid and ask columns 1003 and 1004, labeled "BidQ" and "AskQ," respectively. Those columns show the current bid quantities (offers to buy) and ask quantities (offers to sell) at each price, *id.* col. 7 ll. 54–55, and a trader can enter new trade orders by clicking on the bid and ask columns, *id.* col. 10 ll. 19–23. The "inside market," labeled 1020, spans the highest current bid price and the lowest current ask price. *Id.* col. 4 ll. 60–62. In general, the inside market approximates the commodity's market price and therefore marks a focus of trading activity. In figure 3, the inside market includes a highest bid price of 89 and a lowest ask price of 90.

Figure 4 shows the same display, with data for the same market, viewed at a later point in time. '411 patent col. 3 ll. 47–48. Over time, the inside market can "ascend and descend as prices in the market increase and decrease." *Id.* col. 9 ll. 4–5. As illustration, the inside market in figure 4, labeled 1101, has shifted up the price column to 92/93 from its earlier range of 89/90 in response to intervening trades.

According to the patents, traders able to view and quickly appreciate such detailed market data can more readily identify (and capitalize upon) developing trends in an active market. *Id.* col. 6 ll. 12–30. To that end, the disclosed graphical user interfaces offer a logical and intuitive means to convey dynamic market information using bid, ask, and inside market indicators that visually track ongoing price fluctuations along the price column. Moreover, the patents combine a market grid, a summary of market orders, and an order entry system into a single display. In short, "[s]uch a condensed display materially

simplifies the trading system by entering and tracking trades in an extremely efficient manner.” *Id.* col. 7 ll. 40–42.

Nonetheless, allowing the inside market to move up and down the display presents a problem: “As the market ascends or descends the price column, the inside market might go above or below the price column displayed on a trader’s screen.” *Id.* col. 9 ll. 15–17. Because the inside market informs most trading decisions, the display must provide a way to re-center the price column and bring the inside market back into view. The parent ’132 written description shared by the ’411, ’768, and ’374 patents explains that the values in the price column “are static; that is, they do not normally change positions unless a re-centering command is received,” *id.* col. 7 ll. 64–66, and further describes a “one click” centering feature that allows a user to re-center the price column around the inside market with a single mouse click, *id.* col. 9 ll. 17–25.

### B. The *eSpeed* Decision

As noted, this appeal is not the first to reach this court concerning TT’s trading software patents. In *eSpeed*, we considered, *inter alia*, the correct construction of certain claim terms used in the ’132 patent and in another of its many descendants, U.S. Patent 6,766,304 (the “304 patent”). The ’304 patent, like the ’411, ’768, and ’374 patents, shares the written description of the parent ’132 patent.<sup>1</sup>

In *eSpeed*, TT had asserted claims from the ’132 and ’304 patents against several providers of electronic trading software. 595 F.3d at 1347–48. Each of the asserted

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<sup>1</sup> The ’304 patent issued from a division of the application underlying the ’132 patent. ’304 patent, at [62].

claims required a graphical user interface having a “static” display of market price information,<sup>2</sup> and the district court had construed that term to require “a display of prices comprising price levels that do not change positions unless a *manual* re-centering command is received.” *Id.* at 1352. On appeal, TT argued that a “static” price column could work with non-manual modes of re-centering. *Id.* at 1353.

Relying on the ’132 and ’304 patents’ shared written description, the surrounding claim language, and the relevant prosecution history, we adopted the district court’s construction. *See id.* at 1353–55. In particular, we concluded that “[t]he inventors’ own specification strongly suggests that the claimed re-centering feature is manual” because the written description “only discusse[d] manual re-centering commands” and referred to “the present invention” as including a manual one-click re-centering feature. *Id.* at 1353–54. Consistent with that view, we also noted that the claims of the ’132 patent recited an additional limitation stating that the “static” price display would not move in response to changes in the inside market, expressly excluding displays that re-center automatically when the inside market shifts. *Id.* at 1354. Finally, we highlighted statements made by the applicants during prosecution. Specifically, the examiner had first considered the term “static display” to be indefinite, but the applicants responded by explaining that the values in the price column would not change absent a re-

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<sup>2</sup> The asserted claims of the ’132 patent required a “static display of prices,” while the asserted claims of the ’304 patent required a “common static price axis.” The *eSpeed* claim construction debate nonetheless turned on the meaning of “static” because all agreed that “the difference in terminology between ‘static display of prices’ and ‘common static price axis’ [was] immaterial.” *eSpeed*, 595 F.3d at 1352.



centering command, and the claims were then allowed on that basis. *Id.* at 1354. Accordingly, the full record before us in *eSpeed* led us to conclude that the proper construction of “static,” as used in the claims of the ’132 and ’304 patents, required a price column that moves only in response to a manual re-centering command.

In addition, we rejected TT’s attempts to invoke the doctrine of equivalents to find that products practicing automatic re-centering nonetheless infringed its claims to “static” displays. *See id.* at 1355–57. We held that prosecution history estoppel precluded such infringement theories because the applicants had amended the claims of the ’132 and ’304 patents to make clear that the claimed “static” price levels did not move in response to changes in the inside market, thus “surrender[ing] any subject matter that moves automatically.” *Id.* at 1357. Thus, in *eSpeed*, “both claim construction and prosecution history estoppel operate[d] . . . with similar limited results.” *Id.*

### C. Prosecution of the ’411, ’768, ’374, and ’055 Patents

While the *eSpeed* litigation progressed through the courts, four patent applications that eventually became the ’411, ’768, ’374, and ’055 patents were filed in the United States Patent and Trademark Office. TT followed two distinct approaches to prosecuting those applications in view of *eSpeed*. Those approaches are key to the resolution of this appeal.

#### 1. The ’411, ’768, and ’374 Continuations

With the applications for the ’411, ’768, and ’374 patents—three parallel continuations that relied on the original written description of the ’132 patent—TT sought claims that removed the term “static” from references to the price column. For example, following the district court’s adverse claim construction determinations in the

*eSpeed* litigation,<sup>3</sup> TT amended the application for the '411 patent. Up to that time, the application had claimed methods requiring “statically” displayed market price information, similar to the claims of the related '132 and '304 patents at issue in *eSpeed*. But TT’s amendment cancelled every pending claim and introduced new claims that lacked the term “static” in any form, and that term remained absent from the claims issued in the '411 patent. In addition, TT made comparable amendments to the co-pending applications that gave rise to the '768 and '374 patents.

Therefore, while the written descriptions of the '411, '768, and '374 patents match those of the earlier '132 and '304 patents, the *claims* differ between the two groups in at least one key respect—unlike the '132 and '304 patents at issue in *eSpeed*, the '411, '768, and '374 patents claim trading methods and software without limitation to a “static” price column display.

## 2. The '055 Continuation-in-Part

TT pursued a different strategy with the application for the '055 patent. That application claimed priority from the '132 patent as a continuation-in-part, which allowed TT to add new disclosures to the parent’s written description. In part, those additional disclosures were aimed at redefining the term “static” as used in the '055 patent:

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<sup>3</sup> In that case, the district court issued an initial claim construction ruling on October 31, 2006, and then issued another order clarifying its original construction on February 21, 2007. *Trading Techs. Int’l, Inc. v. eSpeed, Inc.*, Nos. 04-c-5312, 05-c-1079, 05-c-4088, 05-c-4120, 05-c-4811, 05-c-5164, 2006 WL 3147697 (N.D. Ill. Oct. 31, 2006), *clarified*, 2007 WL 611258 (N.D. Ill. Feb. 21, 2007).

Certain of the trading tools work particularly well with a trading display that shows working orders . . . displayed in association with a static price scale or axis. . . . It is to be understood that, in this context, *static does not mean immovable*, but rather means fixed in relation. For example, with a static price scale, *the scale itself may be movable*, but the prices represented remain fixed in relation to each other . . . .

'055 patent col. 4 ll. 48–57 (emphases added); *see also id.* col. 25 ll. 4–12 (“In one embodiment, the trading application tracks the market’s activity by automatically centering, for example, the inside market . . . on the display with respect to a static axis or scale of prices.”); *id.* col. 26 ll. 30–37 (“A trader may use automatic positioning to always have a visual reference of where the market is trading . . . . In addition, automatic positioning may be used in conjunction with manual positioning.”).

The claims of the '055 patent likewise recite steps that include displaying “a static price axis” and “automatically repositioning the static price axis on the graphical user interface.” *Id.* col. 34 ll. 15–67. By their terms, the claims of the '055 patent thus require a “static price axis” capable of re-centering via automatic rather than manual commands.

#### D. District Court Proceedings

In early 2010, TT filed twelve separate infringement actions targeting numerous defendants, including: Open E Cry, LLC; optionsXpress Holdings, Inc.; TradeStation Securities, Inc.; TradeStation Group, Inc.; IBG, LLC; thinkorswim Group, Inc.; TD Ameritrade, Inc.; TD Ameritrade Holding Corp.; Interactive Brokers, LLC; CQG, Inc.; CQGT, LLC; FuturePath Trading, LLC; SunGard Data Systems, Inc.; SunGard Investment Ventures LLC; GL Trade Americas, Inc.; Stellar Trading Systems, Ltd.; Stellar Trading Systems, Inc.; eSpeed Markets, LP; BGC

Capital Markets, LP; Eccoware, Ltd.; and Rosenthal Collins Group, LLC (collectively, “Defendants”).<sup>4</sup> Through a series of supplements and amendments to the original complaints, TT variously accused the Defendants of infringing claims from more than ten patents relating to electronic trading software, of which only the ’411, ’768, ’374, and ’055 patents are before us in this appeal. The district court consolidated the cases on February 3, 2011. *Trading Techs. Int’l, Inc. v. BGC Partners, Inc.*, No. 10-cv-715 (N.D. Ill. Feb. 3, 2011), ECF No. 70 (Consolidation Order).

After consolidation, the parties submitted opposing summary judgment motions on several issues, including whether the claims of the ’411 patent satisfied the written description requirement of 35 U.S.C. § 112(a) in light of *eSpeed* and whether prosecution history estoppel barred TT from asserting infringement under the doctrine of equivalents as to products with price columns that move automatically. *Trading Techs. Int’l, Inc. v. BCG Partners, Inc.*, 852 F. Supp. 2d 1027, 1029–30 (N.D. Ill. 2012) (“*Summary Judgment Order*”).

First, the district court concluded that *eSpeed* required holding the claims of the ’411 patent invalid for lack of written description. The court acknowledged that *eSpeed* did not involve the ’411 patent or the written description requirement and instead dealt primarily with construing the term “static” in the claims of the ’132 and ’304 patents. *Id.* at 1044. Nevertheless, the district court reasoned that *eSpeed* “made a number of findings regarding the specification in the course of affirming the claim construction that are dispositive here.” *Id.*

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<sup>4</sup> Although a defendant before the district court, Rosenthal Collins Group, LLC is not a party to this appeal.

According to the district court, *eSpeed*'s construction of "static" in the '132 and '304 patents turned "on the premise that the invention described in the specification was limited to static price axes that move only with manual re-centering." *Id.* at 1045. Because the '411 patent's claims lacked that term and therefore appeared to cover displays with automatic re-centering, the district court concluded that any decision upholding those broader claims as supported by the same written description "would be at odds with the Federal Circuit's binding findings in the *eSpeed* Decision." *Id.* In granting the Defendants' motion for summary judgment, the district court expressly declined to evaluate the parties' evidence or make its own findings on the merits because the court determined "as a matter of law that the *eSpeed* Decision controls." *Id.* at 1038 n.9; *see also id.* at 1045 n.13.

In addition, the district court held that *eSpeed*'s application of prosecution history estoppel to the '132 and '304 patents applied equally to the '055 patent as a matter of law.<sup>5</sup> The court noted that the '055 patent's claims "include the limitation of 'common static price axis,' just like the '304 patent, and flow from . . . a similar specification." *Summary Judgment Order*, 852 F. Supp. 2d at 1046–47. The court then concluded that when "multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that contain the same claim limitation." *Id.* at 1046 (quoting *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999)). TT argued that prosecution disclaimers affecting the '132 and '304 patents should not automatically limit the '055 patent, with its distinct and

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<sup>5</sup> In addition to the '055 patent, the district court applied prosecution history estoppel to two other related TT patents, but those patents are not included in this appeal.

contravening additional disclosures, but the district court disagreed. “That the ’055 patent is only a continuation-in-part makes no difference.” *Id.* at 1047 n.15. The district court therefore held that TT was estopped from asserting that any claims of the ’055 patent were infringed under the doctrine of equivalents by a product with a price axis that moves automatically. *Id.* at 1048.

Following the *Summary Judgment Order*, the district court held a status hearing and ordered the parties to file a joint response summarizing the effects of its ruling on each patent in suit. The parties agreed that the decision had rendered the following claims invalid: all claims of the ’411 patent except claim 15, all claims of the ’768 patent, and all claims of the ’374 patent except claims 7 and 11. The parties disagreed, however, on the status of the ’055 patent. The Defendants contended that, in view of *eSpeed*, the ’055 patent claims remained valid but limited in scope. TT maintained that the ’055 patent’s added disclosures ascribed a different meaning to “static” in that patent relative to those at issue in *eSpeed*. Therefore, TT asserted, the district court’s *Summary Judgment Order*, which relied on *eSpeed*, should not affect the ’055 patent for purposes of prosecution history estoppel or otherwise.

The district court issued a subsequent order denying TT’s motion to reconsider the prosecution history estoppel ruling, extending its invalidity holding, and certifying partial judgment for immediate appeal. *Trading Techs. Int’l, Inc. v. BCG Partners, Inc.*, 883 F. Supp. 2d 772 (N.D. Ill. 2012) (“*Certification Order*”). Specifically, the court reaffirmed its conclusion that prosecution history estoppel applied to the ’055 patent because of *eSpeed* despite the ’055 patent’s distinct disclosures and prosecution history as a continuation-in-part. *Id.* at 778–79. And having concluded that *eSpeed* applied to the ’055 patent, the court decided that its *Summary Judgment Order* rendered the ’055 patent invalid. *Certification Order*, 883 F.

Supp. 2d at 781 n.1. The district court also agreed with both parties that its earlier order had largely invalidated the '768 and '374 patents as well. *Id.* at 782–84. Finally, the court found no just reason to delay an appeal as to those issues and therefore entered partial final judgment pursuant to Federal Rule of Civil Procedure 54(b).<sup>6</sup>

TT filed a timely appeal, and we have jurisdiction under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

Summary judgment is appropriate “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.” Fed. R. Civ. P. 56(a). We apply the law of the regional circuit when reviewing a district court’s entry of summary judgment. *Teva Pharm. Indus., Ltd. v. Astra-Zeneca Pharm. LP*, 661 F.3d 1378, 1381 (Fed. Cir. 2011). The Seventh Circuit reviews the grant or denial of summary judgment without deference. *Omnicare, Inc. v. UnitedHealth Grp., Inc.*, 629 F.3d 697, 723 (7th Cir. 2011). “Compliance with the written description requirement is a question of fact but is amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the non-moving party.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008). Prosecution history estoppel operates as a legal limitation on a patentee’s ability to invoke

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<sup>6</sup> The court noted that TT had agreed “to enter into a covenant not to sue on any of the *remaining valid claims* of the '411, '768, '374, and '055 patents.” *Certification Order*, 883 F. Supp. 2d at 782 (emphasis added). We interpret the district court’s statements to mean that its final judgment invalidated the following claims: claims 1–14 and 16–28 of the '411 patent; all claims of the '768 patent; claims 1–6, 8–10, and 12–36 of the '374 patent; and all claims of the '055 patent.

the doctrine of equivalents, and we review its application *de novo*. *eSpeed*, 595 F.3d at 1355.

#### A. Written Description

As described, the district court granted summary judgment in favor of the Defendants as to the invalidity of most claims of TT's '411, '768, '374, and '055 patents, holding that our prior decision in *eSpeed* rendered those claims invalid as a matter of law for failing to satisfy the written description requirement of § 112.

TT argues that the district court relied on portions of *eSpeed* that dealt solely with interpreting the term “static” in the related '132 and '304 patents without determining or addressing the scope of the patents' shared disclosure. Noting that the sufficiency of a patent's written description presents a question of fact, TT faults the district court for relying entirely on *eSpeed* rather than conducting its own analysis of whether any of the claims at issue find adequate written description support under § 112. TT contends that, on the merits and apart from any misapplication of *eSpeed*, the claims of the '411, '768, '374, and '055 patents satisfy the written description requirement.

The Defendants respond that the district court properly relied on *eSpeed* because *eSpeed*'s claim construction analysis turned on the same basic issue as the present written description inquiry—whether the original '132 patent discloses a display with a price column that moves through means other than manual re-centering. According to the Defendants, that issue was finally and necessarily decided in *eSpeed*, precluding any contrary findings in this case.

As explained more fully below, we conclude that the district court placed undue reliance on *eSpeed* in its written description analysis and thus erred when it held



TT's claims invalid without considering the scope of the claims in light of the underlying disclosures.

### 1. The '411, '768, and '374 Patents

The '411, '768, and '374 patents all rely on the same underlying disclosure as the '132 and '304 patents discussed in *eSpeed*. But the claims of the patents now before us are different, as are the issues at play, and *eSpeed*'s ruling on claim construction does not govern the written description inquiry in this case.

The question here is whether the patents' common disclosure provides adequate support for claims not limited to displays with "static" price axes, *i.e.*, claims broad enough to encompass some form of automatic re-centering. In explaining its reliance on *eSpeed*, the district court correctly perceived that the written description and claim construction analyses both look to a patent's specification for guidance. *See Summary Judgment Order*, 852 F. Supp. 2d at 1045 (stating that "§ 112 questions and claim construction questions look to the specification first and foremost"). Despite their similarities, however, claim construction and the written description requirement are separate issues that serve distinct purposes.

In construing claims, a court seeks to discern the meaning of a particular term used in one or more claims of a patent, based, *inter alia*, on evidence drawn from the specification, the surrounding claim language, the prosecution history, and relevant extrinsic sources. *See generally Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). The specification is fundamental to claim construction, as "it is the single best guide to the meaning of a disputed term." *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). While guided by the specification, the focus of claim construction remains on defining a discrete claim term to better ascertain the boundaries of a claim. In contrast,

the written description analysis considers the bounds of the specification itself. The written description requirement prevents patentees from claiming more than they have actually invented and disclosed to the public, as measured by the written description of the invention provided with their patent applications. In other words, the written description requirement “ensure[s] that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s . . . patent specification.” *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345 (Fed. Cir. 2000).

This case illustrates the distinction. In *eSpeed*, we were called upon to evaluate the proper construction of “static,” a term used in the claims of the ’132 and ’304 patents. Accordingly, we considered the evidence relevant to a proper reading of that term, starting with those patents’ common written description. *eSpeed*, 595 F.3d at 1353–55. Noting that the patents referred to one-click centering as part of the invention and did not discuss automatic re-centering, we concluded that the specification “strongly suggests” that a “static” price column would require manual re-centering. *Id.* at 1353–54. And even though the patents described price columns that “do not *normally* change positions unless a re-centering command is received,” ’132 patent col. 7 ll. 46–48 (emphasis added), we concluded that “the inventors jettisoned the word ‘normally’ during prosecution” by limiting the term “static” in response to an indefiniteness rejection, *eSpeed*, 595 F.3d at 1354. In sum, we concluded that the disputed claim term should be limited to require a manual re-centering command in the claims of the ’132 and ’304 patents.

But our decision in *eSpeed* did not thereby determine whether the same written description would also support different claims drawn to a non-“static” display. In particular, we did not make “findings regarding the specification . . . that are dispositive” as to the present written

description challenge. *See Summary Judgment Order*, 852 F. Supp. 2d at 1044. On the contrary, we merely determined the best construction for a single disputed claim term, a term that is absent from the claims of the '411, '768, and '374 patents now before us. That analysis did not require us to pass on the outer limits of the patents' written description, nor did we endeavor to do so. In fact, our prior examination of that written description did not even settle the limited claim construction issue then facing the court, *see eSpeed*, 595 F.3d at 1353–54 (concluding that the specification “strongly suggests” that the claimed re-centering feature is manual), much less conclusively find that the same written description could *never* support any claim to a display with a non-“static” price axis.

To be clear, we express no opinion as to whether or not the claims of the '411, '768, and '374 patents now before us satisfy the written description requirement. We leave that determination for the district court to make in the first instance based on its own review of the disclosures underlying those particular claims. We hold only that *eSpeed* did not settle the issue, and we therefore reverse the district court's entry of summary judgment of invalidity and remand for further proceedings on the merits under § 112.

## 2. The '055 Patent

The district court devoted scant analysis to the validity of the '055 patent's claims, noting summarily that its judgment regarding the '411 patent had also invalidated the '055 patent. *Certification Order*, 883 F. Supp. 2d at 782 n.1. For the reasons already set forth, that holding was unsound as far as it relied on *eSpeed* as dispositive of validity under the written description requirement in this case. But the district court's invalidity ruling suffers from additional problems specific to the '055 patent.

In contrast to the '411, '768, and '374 patents, the '055 patent was filed as a continuation-in-part application, which allowed TT to disclose and claim additional subject matter in the '055 patent. *PowerOasis*, 522 F.3d at 1304 n.3 (“[A] continuation-in-part application contain[s] a portion or all of the disclosure of an earlier application together with added matter not present in that earlier application. . . . Generally, a CIP adds new matter on which at least one claim relies for support.”); 37 C.F.R. § 1.53(b)(2) (“A continuation-in-part application . . . may disclose and claim subject matter not disclosed in the prior application . . .”).

As such, the '055 patent differs fundamentally from those at issue in *eSpeed*, and its unique written description was never considered in that case. Furthermore, the supplemental disclosures in the '055 patent are extensive—the '055 patent’s written description spans thirty-four printed columns, compared to just eleven in the '132 patent—and directly relevant to the written description question presented here. For example, the new matter added to the '055 patent includes express descriptions of “static” price axes that can automatically re-center based on predefined criteria:

In one embodiment, the trading application tracks the market’s activity by automatically centering, for example, the inside market . . . on the display with respect to a static axis or scale of prices. . . .

. . . .

. . . When . . . the inside market line is outside of the viewable area of a trader’s display, or is more than a predetermined distance away from a location on the display, the . . . inside market line will automatically be placed at a predetermined location on the display.

'055 patent col. 25 ll. 6–38. In turn, those new disclosures correspond directly to accompanying claim limitations recited in the '055 patent. *See id.* col. 34 ll. 60–67 (“automatically repositioning the static price axis on the graphical user interface such that a current inside market price is displayed at a new desired location”).

Given such unambiguous support for claims requiring “automatic[] repositioning the static price axis,” it cannot be said that the '055 patent’s written description does not “reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date” of the '055 patent. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). We therefore conclude that TT is entitled to summary judgment that the claims of the '055 patent have not been proven invalid by clear and convincing evidence for lack of adequate written description. Accordingly, we reverse the district court’s summary judgment of invalidity and its denial of TT’s cross-motion regarding the claims of the '055 patent.

#### B. Prosecution History Estoppel

Finally, before holding the claims of the '055 patent invalid under § 112, the district court also held that “TT is estopped from asserting that any [claims of the '055 patent] can be infringed under the doctrine of equivalents by a product that has a price axis that moves automatically or re-centers automatically.” *Summary Judgment Order*, 852 F. Supp. 2d at 1048. According to the district court, prosecution history estoppel imposed against the '132 and '304 patents in *eSpeed* also extended to the later '055 patent. *Id.* at 1046.

TT maintains that the new matter added to the '055 patent plainly establishes that the claim term “static” has a broader meaning in the '055 patent than in the '132 and '304 patents. In addition, TT asserts that the district court committed legal error by holding that prosecution

history estoppel regarding that term in the '132 and '304 patents necessarily applies to all of their progeny, including the continuation-in-part '055 patent.

The Defendants answer that *eSpeed* included a binding legal determination regarding the prosecution history of the “static” claim limitation in the TT patent family, which applies equally to the '055 patent’s use of that term in the same context and in a similar specification. Furthermore, the Defendants suggest that even if TT could rescind its earlier disclaimer, the '055 patent contains only vague or ambiguous statements that do not suffice to broaden the scope of “static price axis” beyond that established in *eSpeed*.

As an initial matter, although the parties have labeled their disagreement as one pertaining to prosecution history estoppel, we note some ambiguity as to whether the substance of their arguments and the district court’s ruling in fact concerns prosecution history estoppel, prosecution disclaimer, or both. Prosecution history estoppel applies as part of an infringement analysis to prevent a patentee from using the doctrine of equivalents to recapture subject matter surrendered from the literal scope of a claim during prosecution. *Pall Corp. v. Hemsure Inc.*, 181 F.3d 1305, 1311 (Fed. Cir. 1999). Prosecution disclaimer, on the other hand, affects claim construction and applies where an applicant’s actions during prosecution prospectively narrow the literal scope of an otherwise more expansive claim limitation. *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323–24 (Fed. Cir. 2003). Though distinct, both doctrines serve to constrain the enforceable scope of patent claims commensurate with any subject matter surrendered during prosecution to obtain the patent, and a single action during prosecution can engender both a prosecution disclaimer and prosecution history estoppel. *See, e.g., Elkay*, 192 F.3d at 978–79, 981; *Spectrum Int’l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1380 (Fed. Cir. 1998).

Here, as noted, the district court based its prosecution history estoppel analysis on *eSpeed*. But *eSpeed* addressed prosecution history estoppel *and* prosecution disclaimer, 595 F.3d at 1357 (noting that “both claim construction and prosecution history estoppel operate in this case with similar limited results”), and those parallel discussions appear to have been conflated in this case.

The district court found that an amendment inserting the term “common static price axis” into the claims of the ’132 and ’304 patents had driven the prosecution history estoppel ruling in *eSpeed*. *Summary Judgment Order*, 852 F. Supp. 2d at 1046 (“[T]he Federal Circuit found that inserting the limitation of ‘common static price axis’ into the claims of the ’304 patent prevented TT from asserting that products with price axes that move automatically . . . infringe under the doctrine of equivalents.”). Because the ’055 patent’s claims include essentially the same limitation, the district court reasoned that the holding in *eSpeed* must also apply to the ’055 patent. *Id.* at 1047 (“Where the same claim term is at issue in the same context, TT’s disclaimer as to the ’304 patent applies to the [’055 patent].”). But the amendments that gave rise to prosecution history estoppel in *eSpeed* did not introduce a “static” price axis into the claims—that term was already present. They instead “clarified that the claimed price levels ‘do not move’ when the inside market changes.” *eSpeed*, 595 F.3d at 1357.

Thus, the term “static” (or “common static price axis”) itself did not form the basis for our prosecution history estoppel determination in *eSpeed*. Furthermore, the key “do not move” language added by amendment to the ’132 and ’304 patents does not recur in the claims of the ’055 patent. Alternatively, the issue of prosecution disclaimer in *eSpeed* did turn on discussion of the term “static” during prosecution, *id.* at 1354–55, and, as noted, that term does appear in the claims of the ’055 patent. In addition, the district court’s opinion and the parties’

briefing before this court variously touch on claim construction while ostensibly discussing prosecution history estoppel. *See, e.g., Summary Judgment Order*, 852 F. Supp. 2d at 1047 (summarizing relevant authorities as “concerned about consistency of constructing claims”); Appellant’s Br. 41 (“[T]he dispositive issue is whether the term has the same meaning.”).

Regardless, whether viewed through the lens of prosecution history estoppel or prosecution disclaimer, the basic question here is whether TT’s earlier prosecution-based “surrender[] [of] any subject matter that moves automatically,” *eSpeed*, 595 F.3d at 1357, carries through from the ’132 and ’304 patents to limit the enforceable scope of the ’055 continuation-in-part. We hold that it does not.

Prosecution history estoppel can extend from a parent application to subsequent patents in the same lineage, *Elkay*, 192 F.3d at 981, as can a prosecution disclaimer, *Omega Eng’g*, 334 F.3d at 1333–34. But “arguments made in a related application do not automatically apply to different claims in a separate application.” *Biogen, Inc. v. Berlex Labs., Inc.*, 318 F.3d 1132, 1139 (Fed. Cir. 2003). In general, the prosecution history regarding a particular limitation in one patent is presumed to inform the later use of that same limitation in related patents, “unless otherwise compelled.” *Omega Eng’g*, 334 F.3d at 1334.

In this case, the intrinsic record specific to the ’055 patent distinguishes *eSpeed* and compels a different result. The ’055 patent, as a continuation-in-part of the ’132 patent, includes extensive disclosures that were not present in the ’132 or ’304 patents, and those subsequent disclosures *directly contradict* the prosecution-based surrenders of claim scope discussed in *eSpeed*. For example, the ’055 patent states that “static does not mean immovable,” ’055 patent col. 4 l. 54, and describes “automatically repositioning the static price axis upon detect-



ing a predetermined condition,” *id.* col. 3 ll. 19–20. Furthermore, the claims of the ’055 patent lack the “do not move” limitations that accompanied the term “static” in the ’132 and ’304 patents. *See eSpeed*, 595 F.3d 1356–57. Rather, the claims of the ’055 patent contain express language *requiring* automatic movement of the static price axis. ’055 patent col. 34 ll. 60–67. Finally, TT made clear during prosecution of the ’055 patent—before the same examiner who had handled the ’132 and ’304 patents—that the “static” price axis described and claimed in the ’055 patent was not limited to manual re-centering.

While it retains the “static price axis” claim language of its predecessors, the ’055 patent thus differs from the ’132 and ’304 patents in both its claims and its relevant supporting disclosures on the issue of automatic re-centering. Those differences render *eSpeed*’s earlier prosecution-based restrictions inapplicable to the ’055 patent. *See Middleton, Inc. v. Minn. Mining & Mfg. Co.*, 311 F.3d 1384, 1389 (Fed. Cir. 2002). “When the purported disclaimers are directed to specific claim terms that have been omitted or materially altered in subsequent applications . . . those disclaimers do not apply.” *Saunders Grp., Inc. v. Comfortrac, Inc.*, 492 F.3d 1326, 1333 (Fed. Cir. 2007). Accordingly, the claims of the ’055 patent, unlike those of the related ’132 and ’304 patents, need not be limited to displays with price axes capable only of manual re-centering, whether by prosecution disclaimer or prosecution history estoppel. The district court’s decisions (i) granting summary judgment that prosecution history estoppel applies to the ’055 patent, and (ii) denying TT’s cross-motion, are reversed.

#### CONCLUSION

As explained above, we conclude that *eSpeed* does not govern the issues of written description or prosecution history estoppel raised in this appeal. We reverse and

remand for further proceedings consistent with this opinion.

**REVERSED AND REMANDED**