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

TRADING TECHNOLOGIES INTERNATIONAL, INC.,	)	
	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 04 C 5312
	)	
eSPEED, INC., eSPEED INTERNATIONAL, LTD, and ECCO WARE, LTD.,	)	
	)	
	)	
Defendants.	)	

MEMORANDUM OPINION AND ORDER

Plaintiff Trading Technologies International, Inc. ("TT") brought this suit against

defendants eSpeed, Inc., eSpeed International, Ltd., Ecco LLC, and EccoWare, Ltd.

(collectively "eSpeed"), alleging infringement of U. S. Patent Nos. 6,766,304 ('304) and

6,882,132 ('132). Both patents, similar in scope and language, relate to computer software used

for electronic trading in the futures market. On February 9, 2005, we preliminary construed

patentee's claims in conjunction with our preliminary injunction analysis. Trading

Technologies Int'l Inc. v. eSpeed, Inc., 370 F.Supp.2d 691 (N.D.Ill.2005) ("Preliminary

Injunction Order"). While we ultimately denied a preliminary injunction, our preliminary

claim construction aligned primarily with plaintiff's claim interpretation. Later, after a three-

day Markman hearing, we again construed the patents' claims. Trading Technologies Int'l Inc.

v. eSpeed, Inc., 2006 WL 3147697 (N.D.Ill.2006) ("Claim Construction Order"). Based on

additional information and in-depth analysis, we significantly adjusted our initial construction

of the claims in the patents-in-suit. After another look at our claim construction analysis, we

substantially reaffirmed our constructions. Trading Technologies Int'l Inc. v. eSpeed, Inc.,

2007 WL 611258 (N.D.Ill.2007) ("Clarification Order"). Now, after significant and somewhat contentious discovery, the parties have filed cross-motions for summary judgement regarding the alleged infringement. For the reasons stated herein, we grant defendant's motion for summary judgment of non-infringement and deny plaintiff's cross-motion for partial summary judgment.

BACKGROUND

Summary judgment is proper "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact," such that the moving party is entitled to judgment as a matter of law. FED.R.CIV.P. 56(c). For purpose of summary judgment, we construe the facts in favor of the non-movant (Adickes v. S.H. Kress & Co., 398 U.S. 144, 157 (1970)), and draw all inferences and view underlying facts in the light most favorable to the non moving party. U.S. v. Diebold, Inc., 369 U.S. 654, 655 (1962). The mere existence of some factual dispute will not frustrate an otherwise proper summary judgment; only a genuine dispute over a material fact will defeat summary judgment. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-248 (1986).

Plaintiff has alleged that defendants have developed and sold, and continue to develop and sell, products that infringe the '132 and '304 patents. Claim 1 of each of the patents is representative. Claim 1 of the '132 patent reads:

> A method of placing a trade order for a commodity on an electronic exchange having an inside market with a highest bid and a lowest ask price, using a graphical user interface and a user input device, said method comprising:
>
> [1] setting a preset parameter for the trade order
>
> [2] 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;

[3] 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

[4] selecting a particular area in the order entry region through a 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.

Claim 1 of the '304 patent reads:

A method 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 method comprising:

[1] 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;

[2] 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;

[3] 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;

[4] 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

[5] 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.

Because the remainder of the facts cited in the parties' statements of material facts are largely argumentative and support their broader contentions, we discuss the relevant facts below.

DISCUSSION

eSpeed's motion for summary judgment centers on certain of its accused products: Dual Dynamic versions of the eSpeed and Ecco products ("Dual Dynamic"); the eSpeedometer versions of the eSpeed and Ecco products ("eSpeedometer"); and the Modified eSpeedometer version of the eSpeed and Ecco products ("Modified eSpeedometer"). The parties' motions, and this order, do not address any remaining accused products. With respect to the accused products, eSpeed argues that as a matter of law TT cannot prove literal infringement or infringement under the doctrine of equivalents. eSpeed contends that any doctrine-of-equivalents argument must fail because application of the doctrine would vitiate TT's "static" limitation, and such application is foreclosed by prosecution history estoppel. Specifically, eSpeed points to two features of the accused products: automatic re-centering and a pop-up window, that eSpeed contends remove the products from the purview of TT's patents. Inclusion of those features, eSpeed argues, eliminates TT's ability to prove that the accused products meet every limitation of TT's patents, specifically the "static price axis" and "order entry region," as defined by this court. TT disagrees. First, TT suggests that eSpeed's pop-up

window literally infringes TT's "order entry region" claim limitation because, from the

perspective of the user, he or she can send an order from eSpeed's price columns. Second,

with regard to the "static" limitation, TT breaks down eSpeed's accused products into two

categories: those products that have automatic, instantaneous re-centering, and those that

employ a "drift" re-centering.[1] With respect to the former, TT asserts that it infringes on TT's

patents under the doctrine of equivalents. With respect to the latter, specifically the

eSpeedometer product, TT contends that the "drift" feature literally infringes its patents. In

the alternative, TT contends that the "drift" feature infringes under the doctrine of

equivalents. We address the parties' arguments in turn.

Common Static Price Axis/Static Display of Prices

As has been the case in our previous rulings, the major dispute centers around the

"static" claim limitation. Plaintiff concedes that, under our construction of "common static

price axis" and "static display of prices," eSpeed's Dual Dynamic products with automatic,

instantaneous re-centering do not literally infringe plaintiff's patents. It does contend,

however, that such products infringe under the doctrine of equivalents. We leave the doctrine

of equivalents discussion until later, focusing instead on TT's argument that eSpeed's

eSpeedometer products, products that include the "drift" re-centering feature, literally

infringe TT's patents.

To prevail on its literal infringement claim, plaintiff must prove that the accused

devices contain each limitation of TT's asserted patent claims. Bayer AG v. Elan

---

[1]We adopt the term "drift" to describe the eSpeedometer re-centering process whereby the price
display automatically re-centers the inside market in response to every change in the inside market by causing
the inside market to gradually move back to the center of the screen. TT refers to it as "slow drift." Because
Joseph Noviello and James Davies suggested that such movement has been referred to as "drift" in the Ecco
Implementation (def's motion, exh. I, p. 26; exh. O, p.176) and because we think such a term sufficiently
denotes the re-centering movement, we adopt it for purposes of this order.

Pharmaceutical Research Corp., 212 F.3d 1241, 1247 (Fed.Cir.2000). A finding that any

limitation included in the claim is absent from the accused device will compel a finding of no

literal infringement. *Id.* Infringement, either literal or under the doctrine of equivalents, is

generally a question of fact. V-Formation, Inc. v. Benetton Group SpA, 401 F.3d 1307, 1310

(Fed.Cir.2005). Therefore, summary judgment of infringement or non-infringement is

appropriate "only 'when no reasonable jury could find that every limitation recited in the

properly construed claim either is or is not found in the accused device.'" *Id.* (citing Gart v.

Logitech, Inc., 254 F.3d 1334, 1339 (Fed.Cir.2001)).

eSpeed argues that its products do not literally infringe because they are not "static."

In our claim construction order, we defined "common static price axis" as "a line comprising

price levels that do not change positions unless a manual re-centering command is received and

where the line of prices corresponds to at least one bid value and one ask value" and "static

display of prices" as "a display of prices comprising price levels that do not change positions

unless a manual re-centering command is received." Claim Construction Order, 2006 WL

3147697, at *4. In light of our construction, TT remains convinced that the eSpeedometer

products' "drift" re-centering literally infringes the "static" claim limitation of TT's patents.

eSpeed describes the "drift" re-centering movement:

> [T]he price display also automatically re-centers the inside market in response
> to every change in the to the [sic] inside market by causing the inside market to
> gradually move back to the center of the eSpeedometer window. This type [of]
> automatic re-centering occurs without the input of the user in the eSpeedometer
> version of the eSpeed application. This type of automatic re-centering cannot
> be turned off by the user in the eSpeedometer version of the eSpeed application.
> The eSpeedometer version of CantorFITS includes this same functionality for
> automatically re-centering the inside market.

(defs' statement of material facts, ¶35) (internal citations omitted). (*See also id.*, at ¶ 39)

(regarding the eSpeedometer version of the Ecco Pro application).

TT focuses its argument on our construction of "static." Plaintiff argues that in defining the term "static" to mean "not changing positions," as opposed to prohibiting any movement, we previously recognized that some movement is irrelevant to the claims. TT uses a train board analogy to suggest that the patent was designed to replace trading screens wherein the price in a specific column of the price axis would flip to a different price upon a change in the inside market. eSpeedometer's "drift" feature, plaintiff argues, does not constitute a change of positions, and therefore, comes within the ambit of "static" as defined by TT's patents and this court. TT explains: "In sum, the patents-in-suit address the problems associated with prices changing positions (sudden flipping of prices), such that the trader misses his or her intended price when he clicks on the intended cell. Any extraneous movement of prices that has no effect on the trader missing his or her price when he clicks on the intended cell is irrelevant in the context of the patents-in-suit" (plf's response, p. 18).

While our construction of "common static price axis" and "static display of prices" used the language of changing positions, our order on plaintiff's motion for clarification was quite clear that "static" eliminates movement. In that order we addressed whether the patent term "static" required a permanent state of lack of movement. Answering that question in the affirmative, we rejected plaintiff's additional feature and part-time infringement arguments. We specifically stated: "Where, however, the claim limitation itself – here, a static condition – requires permanency, any movement (outside of manual re-centering or re-positioning) negates one of the specified claim limitations." Clarification Order, 2007 WL 611258, at *5. Foreshadowing a literal infringement analysis, we continued: "In this case, in order to literally infringe, defendants must practice all elements of plaintiff's patented technology. Therefore,

any movement of the static price axis leaves accused technology outside the protection of plaintiff's patents." *Id.* Under our construction, we find that no reasonable jury could determine that any eSpeed product that includes automatic re-centering of the price axis uncontrolled by the user, including the "drift" re-centering, literally infringes on TT's patents. We grant summary judgment with respect to literal infringement.

With respect to both the Dual Dynamic and eSpeedometer products, TT argues that the automatic re-centering features infringe on its patents under the doctrine of equivalents. TT contends that the price axis in each of eSpeed's accused products is not substantially different from the "common static price axis" or "static display of prices" claimed in TT's patents. If an accused product does not literally infringe on an asserted claim, infringement may still be found under the doctrine of equivalents "if there is not a substantial difference between the limitations of the claim and the accused product." Bayer AG, 212 F.3d at 1250-51. Infringement under the doctrine of equivalents, like literal infringement, is a question of fact. *Id.*, at 1251. The Supreme Court addressed the import of the doctrine of equivalents:

> If patents were always interpreted by their literal terms, their value would be greatly diminished. Unimportant and insubstantial substitutes for certain elements could defeat the patent, and its value to inventors could be destroyed by simple acts of copying. For this reason, the clearest rule of patent interpretation, literalism, may conserve judicial resources but is not necessarily the most efficient rule. The scope of a patent is not limited to its literal terms but instead embraces all equivalents to the claims described.

Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 535 U.S. 722, 731-32 (2002). The Supreme Court, however, in an earlier case, cautioned against applying the doctrine of equivalents too broadly: "There can be no denying that the doctrine of equivalents, when applied broadly, conflicts with the definitional and public-notice functions of the statutory claiming requirement." Warner-Jenkinson Co., Inc. v. Hilton David Chemical Co., 520 U.S.

17, 29 (1997).

We begin our equivalence analysis with the automatic re-centering of the Dual Dynamic

products. eSpeed describes the automatic re-centering feature:

> In the Dual Dynamic version of the eSpeed application, the price display
> automatically and immediately re-centers the inside market (*i.e.*, the best bid
> and the best offer) upon a change in the inside market that would cause the
> inside market to be displayed off the Dual Dynamic window. This automatic re-
> centering occurs without the input of the user in the Dual Dynamic version of
> the eSpeed application. The Dual Dynamic versions of AutoSpeed Basis and
> CantorFITS include this same functionality for automatically and immediately
> re-centering the inside market.

(def's statement of facts, ¶ 29) (*see also id.*, ¶ 31) (regarding the Dual Dynamic version of the

Ecco Pro application). eSpeed contends that, in addition to the "drift" feature described

above, the eSpeedometer products also contain automatic re-centering identical to that of the

Dual Dynamic product. (*Id.*, at ¶ 34, 37). The same is true for the Modified eSpeedometer

products. (*Id.*, at 41).

While TT offers some evidence that both the Dual Dynamic automatic re-centering and

the eSpeedometer "drift" re-centering infringe, based on the doctrine of equivalents, eSpeed

chooses not to focus on the factual inquiry as to whether its automatic re-centering features

are equivalent to TT's "static price axis." Rather, eSpeed contends that TT is barred, as a

matter of law, from asserting a doctrine of equivalents theory. In support of their argument,

eSpeed asserts that the doctrine of equivalents is inapplicable where, as here, its application

would vitiate a claim limitation and/or is foreclosed by prosecution history estoppel.

We begin with the so-called "all elements" rule. A finding of infringement requires a

finding that the accused product contains each limitation of the claim, either literally or under

the doctrine of equivalents. <u>Freedman Seating Co. v. American Seating Co.</u>, 420 F.3d 1350,

1358 (Fed.Cir.2005) (defining the "all limitations" rule). Therefore, "an element of an accused product or process is not, as a matter of law, equivalent to a limitation of the claimed invention if such a finding would entirely vitiate the limitation." *Id.* (citing Warner-Jenkinson Co., 520 U.S. at 29). *See also* Seachange Int'l, Inc. v. C-COR, Inc., 413 F.3d 1361, 1378 (Fed.Cir.2005); Conopco, Inc. v. May Dept. Stores Co., 46 F.3d 1556, 1562 (Fed.Cir.1994) ("The doctrine of equivalents cannot be used to erase 'meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement.'") (internal citations omitted); While there is no set formula for determining whether applying the doctrine of equivalence would vitiate a claim limitation, we must consider the totality of the circumstances to "determine whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless." Freedman Seating Co., 420 F.3d at 1359.

We begin with analysis of the Dual Dynamic automatic re-centering, wherein the price axis re-centers when the inside market moves off the screen.[2] eSpeed argues:

> TT is foreclosed from arguing that automatically moving price levels are equivalent to price levels that "do not change positions unless a manual re-centering command is received." Likewise, TT is foreclosed from arguing that "static" is equivalent to "dynamic" and that prices that "do not move" when the inside market changes are equivalent to prices that "do move." A finding of equivalence would not only vitiate the meaning of the word "static," it would require a wholesale rewriting of the claim.

---

[2]Although eSpeed claims that the eSpeedometer products include automatic, instantaneous re-centering similar to that in the Dual Dynamic product, in addition to its "drift" re-centering, TT disputes such a contention. In support of its contention, TT offers an 8-minute clip of the eSpeedometer product and introduces the declaration testimony of expert witness Christopher Thomas (plf's response, exh. C; *Id.*, exh. E, ¶ 6, n1). An act of infringement occurs when an infringer "makes, uses, offers to sell, or sells any patented invention...." 35 U.S.C. § 271. Because infringement analysis involves a comparison of the accused product (as it exists, not under some hypothetical) to the patent claims, the key is how the product runs, how it exists in practice. Therefore, we find that there is a genuine issue of fact as to whether the eSpeedometer products include the automatic re-centering feature whereby the price axis re-centers when the inside market moves off the screen.

(def's motion, at 17). TT responds:

> In short, eSpeed's automatic re-centering feature does not vitiate the 'static' limitation, because eSpeed's product has price levels [sic] remain in the same positions most of the time, except in the infrequent instances in which the screen is automatically re-centering.

(plf's response, at 9). The re-centering is so infrequent, TT asserts, that it occurs on average only once or twice per trading day (*see* plf's response, exh. E., ¶ 8) (analysis based on the previous month's trading data on the five- and ten-year Chicago Board of Trade bond markets). Such infrequent position changes, TT continues, in light of the similar function, way to achieve the function, and result between the patent technology and the accused product (*see* Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608 (1950); Dolly, Inc. v. Spalding & Evenflo Companies, Inc., 16 F.3d 394, 397 (Fed.Cir.1994)), create only a subtle and insubstantial difference.

TT relies on Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309 (Fed.Cir.1998), Rosby Corp. v. Stoughton Trailers, Inc., 2003 WL 22232802 (N.D.Ill.2003), and LG Electronics, Inc. v. Bizcom Electronics, Inc., 453 F.3d 1364 (Fed.Cir.2006) to support its argument that the limited number of times an eSpeed product automatically re-centers is a subtle matter of degree, and thus, an insubstantial difference. In Ethicon, the Federal Circuit reversed the district court's summary judgment of non-infringement by equivalents on one of two claims. Therein, the court found that even though the accused product's lockout mechanism lost contact with the pusher assembly in a surgical stapler, the very short period of loss of contact was insubstantially different from the patent claim requiring constant contact between the lockout mechanism and the pusher assembly during firing of the stapler. The Ethicon court concluded that the "'very slight,' 'very quick' temporal difference, a period that

is perhaps as short as a few thousandths of a second,...is a subtle difference of degree, not a clear, substantial difference or difference in kind..." 149 F.3d at 1321. Similarly, in Rosby Corp., 2003 WL 22232802, Judge Guzman found a question of fact sufficient to defeat a motion for summary judgment of non-infringement in a case involving a trailer with a larger internal width capable of holding additional pallets. The patent claimed a pair of sidewalls "aligned side-by-side in contiguous abutting relation," which was construed to require physical contact along all or most of one side of the side panel. Rosby Corp., 2003 WL 22232802, at *2. Citing Ethicon, among other cases, Judge Guzman found that the difference between touching sidewalls and barely touching sidewalls was insubstantial. Finding that the functional difference was minimal, Judge Guzman noted, "finding the claim element here to be side walls in side-by-side alignment strikes the appropriate balance, giving the public fair notice of the patent's reach while simultaneously avoiding the strict literalism the doctrine of equivalents was designed to prevent." *Id.*, at *6. Finally, in LG Electronics, the Federal Circuit disagreed with the district court's finding of claim vitiation in its doctrine of equivalents analysis. The district court rejected plaintiff's argument that performing all of the write requests in an information processing system up to (and including) the one matching the read request was not substantially different from the claim limitation's performance of all write requests before execution of the incoming read request. The lower court determined that finding the two processes equivalent would vitiate the claim limitation of performing "all" write requests before an incoming read request. 453 F.3d at 1380. The Federal Circuit disagreed: "If substantially all or nearly all write requests are performed by the accused devices before each matching read request, then the doctrine of equivalents would be fully applicable without vitiating the claim language." *Id.*, at 1381.

We do not find TT's citation to these cases persuasive. In <u>Ethicon</u>, the purpose behind the lockout mechanism was to prevent a staple from being fired. The difference in degree, due to a 15-20 millimeter difference in the length of the pusher bars in the stapler, did not alter the efficacy of the product – the restraint always worked to prevent the firing of a staple. Similarly, in <u>Rosby Corp.</u>, the court found the functional difference minimal. 2003 WL 22232802, at *6. Here, any instantaneous movement of the price axis, uncontrolled by the user, alters the efficacy of the product (*see* plf's response, p. 7) ("With automatic re-centering, there is a risk of missing a price because the price grid may be repositioned, but only when the inside market jumps off the top or bottom of the screen"). *See also* <u>Claim Construction Order</u>, 2006 WL 3147697, at *5 ("We find that the purpose of the patents' invention would be frustrated by the inclusion of any movement uncontrolled by the user"). As previously stated, we have construed the term "common static price axis" as "a line comprising price levels that do not change positions unless a manual re-centering command is received and where the line of prices corresponds to at least one bid value and one ask value" and "static display of prices" as "a display of prices comprising price levels that do not change positions unless a manual re-centering command is received." *Id.*, at *4. A finding that a change of positions (even once or twice per trading day) is equivalent to not changing positions unless by manual re-centering would vitiate the "static" requirement. The price levels either change positions (or flip, as analogized to a train board) or do not change positions; there is no matter of degree. Therefore, we find that automatic re-centering, when it causes the price levels to change positions, is "a clear, substantial difference or difference in kind." <u>Freedman Seating Co.</u>, 420 F.3d at 1361 (finding that a rotatably mounted support member on a stowable seat was not equivalent to a slidably mounted support member). *See also* <u>Moore U.S.A., Inc. v. Standard</u>

Register Company, 229 F.3d 1091 (Fed.Cir.2000) (denying plaintiff's argument that a majority of the lengths is equivalent to a minority of the lengths both because such a finding would vitiate the minority claim limitation and because it would defy logic to conclude that the two could be equivalents). As we have already noted, a different finding would frustrate the stated purpose of plaintiff's patents. *See* Scimed Life Systems, Inc. v. Advanced Cardiovascular Systems, 242 F.3d 1337 (Fed.Cir.2001) (where plaintiff's patents made clear that a dual lumen configuration in a balloon dilation catheter was an inferior product, it could not later apply the doctrine of equivalents to capture products designed with a dual lumen configuration); Dolly, Inc., 16 F.3d at 397 ("'To be a[n] ... 'equivalent,' the element substituted in the accused device for the element set forth in the claim must not be such as would substantially change the way in which the function of the claimed invention is performed'") (internal citations omitted). Therefore, with respect to the Dual Dynamic products that include an automatic instantaneous re-centering when the inside market moves off the screen, we find that the products do not infringe under the doctrine of equivalents.

The eSpeedometer "drift" re-centering requires a different analysis. We previously concluded that a question of fact exists as to whether the eSpeedometer products include the Dual Dynamic re-centering feature, wherein the price axis automatically re-centers when the inside market moves off the screen (*see supra*, note 2). Therefore, we must assess whether the "drift" re-centering potentially infringes under the doctrine of equivalents before granting summary judgment to eSpeed on the eSpeedometer products. Unlike the Dual Dynamic automatic re-centering, it does not appear that a trader may miss an intended price due to movement in the eSpeedometer products. The "mouse lock" feature contained in the eSpeedometer products seemingly prevents trade commands from being entered at erroneous

price levels (*see* plf's response, exh. M at eS0064327, line 29–eS0064328, line 9). The

eSpeedometer application explains:

> In order to help prevent trade commands from being entered at erroneous price
> levels, the system may lock a pointer to a price the user points to according to
> some embodiments of the present invention. Accordingly, when a user moves
> a pointer to a cell that includes or is adjacent to a particular price, the system
> may lock the pointer to that price. That is, when the indication of the inside
> market shifts, the pointer may be repositioned such that it is pointing to the cell
> that includes or is adjacent to the same price, unless the user moves the pointer
> away from that price. Unless the user moves the pointer away from that cell, a
> command is entered for the price desired by the user when the user clicks to
> enter the command.

Due in part to such technology, we assume, the eSpeedometer application states that an

objective of the invention is "to provide systems and methods that clearly represent price

fluctuations while ensuring quick, accurate and efficient execution of trades." (*Id.*, at

eS0064306, lines 14-17).

Such an assurance of accuracy eliminates many of the concerns we addressed above

with respect to the possibility of missing a trade. Unlike the Dual Dynamic automatic re-

centering, it appears that the eSpeedometer "drift" re-centering does not alter the efficacy of

the product. So the question remains, does the "drift" re-centering vitiate the static claim

limitation.

We are not convinced. Just because the eSpeedometer's "drift" re-centering does not

literally infringe plaintiff's "static" claim element, does not mean that it does not infringe by

equivalents. Ethicon, 149 F.3d at 1317. In this case, we think that the eSpeedometer

"performs substantially the same function as the claimed limitation in substantially the same

way to achieve substantially the same result." *Id.*, at 1315-16. The "drift" will not cause a

trader to miss his price. And unlike the Dual Dynamic re-centering, the price levels never

change positions in response to a change in the inside market. Such movement, while not literally infringing, does not vitiate the "static" requirement of the price axis. It is more a matter of degree – one in which we cannot find, as a matter of law, a substantial difference.

eSpeed's motion contains one remaining argument. Defendants suggest that plaintiff's doctrine of equivalents argument is barred by prosecution history estoppel. A patentee is prohibited by prosecution history estoppel from arguing that its claims cover subject matter that was clearly and unmistakably surrendered during the prosecution of the patent. Bayer AG, 212 F.3d at 1252. In determining the scope of prosecution history estoppel, we examine the prosecution history as a whole and ask "'whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter.'" Id. (internal citations omitted). Estoppel can be applied based on amendments made to overcome patentability rejections or arguments made during prosecution. Id., at 1251. eSpeed argues that both apply in this case.[3]

With regard to estoppel based on argument, eSpeed points to a rejection of the patent's claims under § 112 of the Patent Code. The Patent Office stated, "The claim limitations 'dynamic display' and 'static display' are vague and indefinite. The applicant is requested to claim 'to what extent', 'to what degree', and 'on what basis' the displays change" (defs' motion, exh. C, at eS64865). TT responded, "Regarding the claim limitations 'dynamic display and 'static display', the Applicant respectfully directs the Examiner's attention to pages 13-15 of the specification describing the nature of the price values and the dynamic nature of the one or more bids and/or asks displayed. In summary, the values in the price column remain

_____

[3]Although we already determined that the Dual Dynamic products do not infringe TT's product, eSpeed's prosecution history estoppel arguments apply equally to the Dual Dynamic products as to the eSpeedometer products. Where we distinguish between the two types of re-centering, the distinction is noted.

'static'; that is, they do not change positions in the display (unless a re-centering command is received)." (*Id.*, at eS64886). The relevant portions of pages 13-15 of the specification state, "The value in the price column are static; that is, they do not normally change positions unless a re-centering command is received" (plf's response, exh. J at eS64805). TT argues that its response to the Patent Office is consistent with its argument and the patents' teaching, that the key focus of the static price axis is its inability to change positions, or flip from one price to the next. We do not find that such a statement to the Patent Office clearly and unmistakably surrenders the type of movement suggested by the eSpeed products, specifically the eSpeedometer "drift" re-centering. Therefore, we do not find argument-based estoppel.

With regard to estoppel based on amendment, eSpeed points to the amendment of prosecution claims 22 and 41. During the course of the prosecution of its patents, TT amended the relevant portion of Claim 22 of the '132 patent as follows (deletions marked in brackets, additions underlined):

> displaying [the] market depth of [a] the commodity [traded in a market], 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;

(defs' motion, exh. C, at eS65203). Similarly, TT amended the relevant portions of Claim 41 of the '304 patent as follows:

> 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 [can] moves in the bid [and] or ask display regions relative to the common static price axis [when the inside market changes];

(*Id.*, exh. D, at eS65741).

The Supreme Court has defined the scope and purpose of amendment-based prosecution history estoppel:

> The doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes. When, however, the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent. On the contrary, "[b]y the amendment [the patentee] recognized and emphasized the difference between the two phrases[,]... and [t]he difference which [the patentee] thus disclaimed must be regarded as material."

Festo Corp., 535 U.S. at 733-34 (citing Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126, 136-37 (1942)).

Applying amendment-based estoppel to this case, we note that TT's original claims included a "static" limitation. Upon amendment, TT added the clarification that the static display of prices does not move in response to a change in the inside market. We have determined that the term "static" means "not changing positions." Applying this definition, during prosecution TT amended its claims from requiring a price axis that did not change positions to requiring a price axis that did not move in response to a change in the inside market. See Rosby Corp., 2003 WL 22232802, at *9. eSpeed's products – both the Dual Dynamic products and the eSpeedometer products – have a price axis that moves in response to a change in the inside market. Upon a change in the inside market that takes it off the screen, the Dual Dynamic products move the price axis to re-center the inside market in the center of the screen. Similarly, in the eSpeedometer models, upon a change in the inside market that moves the inside market up or down on the screen, the price axis automatically drifts back to the center of the screen. There would be no movement without a change in the

inside market. Therefore, TT's doctrine of equivalents argument is foreclosed by prosecution history estoppel.

TT's arguments do not save its doctrine of equivalents theory. TT argues that applying this court's definition of "static," the claim amendments are not narrowing. Initially, this argument was somewhat persuasive. In thinking about why we construed the claims as narrowly as we did, however, we are reminded that we looked to the claim language, the specification, and the prosecution history. TT cannot, after having been unsuccessful in arguing for a broader construction, use our narrower construction as a weapon to essentially broaden its claims. Even so, plaintiff's argument must fail. We construed "static" to mean not changing positions. Even if we accept TT's argument that not changing positions means that the price levels do not flip like the destinations on a train board, the amendment narrows the scope of the claim. By specifically saying that the display of prices does not move in response to a change in the inside market, TT specifically chose to use the display of prices (the price axis), as opposed to price levels, and used the term "do[es] not move" instead of does not change positions. Thus, TT has clearly disclaimed a price axis that moves in response to a change in the inside market. That is exactly what eSpeed's products do – move in response to a change in the inside market. "[A]s between the patentee who had a clear opportunity to negotiate broader claims but did not do so, and the public at large, it is the patentee who must bear the cost of its failure to seek protection for this foreseeable alteration of its claimed structure." Freedman Seating Co., 420 F.3d at 1361 (citing Sage Products, Inc. v. Devon Industries, Inc., 126 F.3d 1420, 1425 (Fed.Cir.1997)). Therefore, based on the foregoing analysis, we grant eSpeed's motion for summary judgment of non-infringement for its products containing automatic re-centering uncontrolled by the user.

Both parties also debate infringement of TT's "order entry region" and seek summary

judgment of infringement or non-infringement. Because we are convinced that regardless of

the outcome, this case will surely make its way to the Federal Circuit, we will address the

merits of the parties' arguments. At issue is a pop-up window in eSpeed's products, which

defendants allege takes its products outside the scope of TT's patents. Claims 1 of the patents-

in-suit both require an "order entry region...for receiving commands" to send trade orders.

In our claim construction order, we construed "order entry region" to mean "an area

comprising a plurality of locations where users may enter commands to send trade orders, and

that each location corresponds to a price level along the common static price axis." 2006 WL

3147697, at *7. We went on to clarify two points: (1) The claim limitation "'order entry

region'" should be viewed from the perspective of the user, not the computer" (*id.*, at *8); and

(2) "'[O]rder entry region' is a location within the trading display where a user *sends* and not

simply *initiates* an order." *Id.* (emphasis in original). In support of our conclusion we relied

on the patent specification and TT's amendment of its claims with regard to "order entry

region." *Id.*

TT asserts that the pop-up window contained in eSpeed's accused products literally

infringes on its patent claims. In the alternative, TT contends that the products infringe by

equivalents. eSpeed describes the pop-up window of the Dual Dynamic product:

> In the Dual Dynamic version of the eSpeed application, the user initiates the
> process of placing a trade order by depressing the mouse button with the cursor
> positioned over a price in either the bid price column or the offer price column.
> The user depresses the mouse button over a price which (with the second look
> option disabled) causes the eSpeed application to display the order entry pop up
> window and to move the cursor to the default quantity in the order entry pop
> up window. After the order entry pop up window has been displayed, the user
> may move the mouse cursor to select a trade quantity in the order entry pop up
> window or to abandon the trade. With the cursor positioned over the desired

> trade quantity, the user may release the mouse button to send the trade order.
> If the user does not move the mouse to select a different trade quantity in the
> order entry pop up window or to abandon the trade, releasing the mouse
> buttons sends a trade order at the default quantity. The Dual Dynamic versions
> of AutoSpeed Basis and CantorFITS have the same order entry process as the
> Dual Dynamic version of the eSpeed application.

(defs' statement of facts, ¶ 30). (*See also* ¶ 33) (regarding the Dual Dynamic version of the

Ecco Pro application); ¶ 36 (regarding the eSpeedometer version of the eSpeed application);

¶ 40 (regarding the eSpeedometer version of the Ecco Pro application); ¶ 43 (regarding the

Modified eSpeedometer version fo the Ecco Pro application)).

We first address TT's literal infringement argument. Essentially, TT argues, eSpeed's

pop-up window is an optional feature. Should the trader choose to place an order at a default

quantity, the trader need only press and release his or her mouse button in a cell of the price

axis. This, TT contends, literally infringes on TT's claims. TT explains:

> The trader need not move the mouse cursor to another location, or take any
> further action to send the order for the default quantity. The trader also does
> not have to use any features of the pop-up window. Instead, the user simply
> releases the mouse button and an order is sent for the default quantity.

(plf's response, at 4). To support its argument that eSpeed's pop-up window feature does not

avoid literal infringement, TT suggests that the addition of features does not avoid

infringement if all the elements of the patent claims have been adopted. TT is correct in

theory. *See* Vulcan Engineering Co., Inc. v. Fata Aluminum, Inc., 278 F.3d 1366, 1375

(Fed.Cir.2002) ("When the claimed function is performed in the accused system, by the same

or equivalent structure, infringement of that claim element is established"); Texas

Instruments, Inc. v. U.S. Int'l Trade Comm'n, 805 F.2d 1558, 1568 (Fed.Cir.1986) ("As a

matter of law, subsequent improvements do not in themselves preclude a finding of

infringement") (internal citations omitted).

eSpeed argues that the pop-up window, not the price axis, is the location from which a trader sends his or her trade order, and therefore, its products do not meet all of TT's claim limitations. eSpeed explains:

> The eSpeed products display pop-up windows when a user depresses the mouse in the price ladder. In this pop-up window the trader can confirm the order is correct, change a parameter of the order, or cancel the order before it is sent to the exchange. This all occurs *after* the initial selection of a cell in the price column of the product.

(defs' reply, at 12) (emphasis in original). Because the order is actually sent from the pop-up window, not the price column, eSpeed asserts its products cannot meet the literal language of our construction of "order entry region" – that selection of a cell in the order entry region does more than initiate an order, it sends or executes the order. eSpeed argues that our construction "forecloses any pop-up window from coverage by the claims because selecting the cell in a price column merely initiates the pop-up window from which the trade can then either be sent, changed, or aborted." (*Id.*, at 13). In support of its argument, eSpeed points to TT's statement of facts. Therein, TT claimed:

> TT never amended the claims to distinguish its invention from all screens having pop-up windows. Instead, TT amended the claims to distinguish screens with order entry regions requiring multiple actions to both initiate and send a trade order, i.e., lacking single action order entry. <u>For example, a screen that requires one action to initiate an order (e.g., one click on a price) and then another separate action to send the order (e.g., one click on a send/verify button in a pop-up window) was being distinguished</u> as it does not constitute a single action.

(defs' reply, at 14) (citing plf's statement of facts, ¶ 3) (emphasis in defs' reply).

We think that eSpeed purposefully shifts TT's argument. There is no dispute that in eSpeed's products a trader can click on a price cell in the price column and send a trade order. From the trader's perspective it is possible to execute a trade from the price column. For
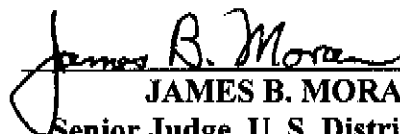
example, if a trader clicks his mouse on a certain price (one click = depressing the mouse button and immediately releasing the mouse button), his order will be sent for the default quantity at the selected price. (*See* plf's response, exh. E, ¶ 26; *Id.*, exh. C). We have previously held that "order entry region" must be construed from the perspective of the trader, not the computer. Claim Construction Order, 2006 WL 3147697, at *8. We explained:

> Thus, from the perspective of the user, selection of an area in the order entry region is the final step in the trader's placement of an order at the market. In other words, the user need not do anything more before the order is entered at the market. If, however, the computer or the exchange had to perform additional steps before the order was actually filled at the exchange, such would still fall within the ambit of "order entry region...."

Id. We think it highly unlikely that a reasonable jury could determine that eSpeed's products do not contain an "order entry region" as defined by TT's patents and this court. Particularly, we believe that a reasonable jury could determine only that it is the computer that takes the additional steps with regard to executing the trade, as explained by the final sentence cited above. Because infringement is a matter of fact, and we believe that no reasonable jury could side with defendants, we would likely determine that eSpeed's products contain an "order entry region," as defined by this court. Once that determination is made, the parties' doctrine of equivalents argument becomes moot.

CONCLUSION

For the reasons stated above, we grant eSpeed's motion for summary judgment for non-infringement. We deny TT's cross-motion for summary judgment.

_____
JAMES B. MORAN
Senior Judge, U. S. District Court

_____, 2007.