

# United States Court of Appeals for the Federal Circuit

05-1177, -1192

LAVA TRADING, INC,

Plaintiff- Appellant,

v.

SONIC TRADING MANAGEMENT, LLC, JOSEPH CAMMARATA,  
and LOUIS FENG LIU,

Defendants-Appellees,

and

ROYALBLUE GROUP PLC,  
ROYALBLUE FINANCIAL CORPORATION  
and ROYALBLUE FINANCIAL PLC,

Defendants-Appellees.

Albert L. Jacobs, Jr., Greenberg Traurig LLP, of New York, New York, argued for plaintiff-appellant. With him on the brief were Daniel A. Ladow and Barry J. Schindler.

Robert R. Brunelli, Sheridan Ross P.C., of Denver, Colorado, argued for defendants-appellees, Sonic Trading Management, LLC, et al. With him on the brief was Scott R. Bialecki. Of counsel was Bill Vaslas, Vaslas Lepowsky Hauss & Danke LLP, of Stanten Island, New York.

Claude M. Stern, Quinn Emanuel Urquhart Oliver & Hedges, LLP, of Redwood Shores, California, argued for defendants-appellees, Royalblue Group PLC, et al. With him on the brief was Michael B. Carlinsky and Edward J. DeFranco, of New York, New York.

Appealed from: United States District Court for the Southern District of New York

Judge Thomas P. Griesa

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DECIDED: April 19, 2006

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Before MAYER, RADER, and LINN, Circuit Judges.

Opinion for the court filed by Circuit Judge RADER. Dissenting opinion filed by Circuit Judge MAYER.

RADER, Circuit Judge.

This appeal stems from two stipulated judgments of non-infringement of U.S. Patent No. 6,278,982 (the '982 patent). Lava Trading, Inc. v. Sonic Trading Mgmt., LLC, 03-CV-9382 (S.D.N.Y. Dec. 8, 2004) (Royalblue Stipulation); Lava Trading, Inc. v. Sonic Trading Mgmt., LLC, 03-CV-0842 (S.D.N.Y. Dec. 8, 2004) (Sonic Stipulation). Because flaws in the district court's interpretation of claim 9

call the stipulated judgments into question, this court vacates and remands for further proceedings.

I.

Lava Trading, Inc. (Lava) owns the '982 patent, which claims software that aggregates and integrates securities trading and order placement information from various alternative trading systems. '982 patent, col. 1, ll. 7-13. Lava sued Sonic Trading Management LLC, Joseph Cammarata and Louis Feng Liu (collectively Sonic) and Royalblue group plc, Royalblue financial corporation and Royalblue financial plc (collectively Royalblue) in the United States District Court for the Southern District of New York for infringement of the '982 patent, among other state law claims. The defendants denied infringement and counterclaimed for a declaratory judgment that the '982 patent is invalid, unenforceable, and not infringed. Royalblue Stipulation, slip op. at 1; Sonic Stipulation, slip op. at 1.

On May 24-26, 2005, the district court held a Markman hearing and issued a claim construction ruling from the bench. Thereafter, the parties stipulated to final judgments of non-infringement. See Royalblue Stipulation; Sonic Stipulation. Lava appeals the stipulated final judgment orders.

II.

At the onset, the procedural posture of this appeal presents problems. For instance, this court notes that defendants' counterclaims of invalidity and unenforceability are still pending before the trial court. These pending counterclaims put this court in the awkward position of reviewing a claim construction that may implicate issues and claims beyond this court's current

reach. See Int'l Commc'n Materials, Inc. v. Ricoh Co., 108 F.3d 316, 318-19 (Fed. Cir. 1997) (commenting that, when substantial issues remain open on appeal, this court should first “provide the district judge and parties the opportunity to complete the picture.”).

In addition, this record on appeal does not supply any meaningful comparison of the accused products to the asserted claims. Without knowledge of the accused products, this court cannot assess the accuracy of the infringement judgment under review and lacks a proper context for an accurate claim construction. “While a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction.” Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 2006 WL 722127, slip op. at 7 (Fed. Cir. 2006) (citing SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1118 (Fed. Cir. 1985); Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1580 (Fed. Cir. 1991); Multiform Dessicants, Inc. v. Medzan, Ltd., 133 F.3d 1473, 1476-78 (Fed. Cir. 1998); Pall Corp. v. HemaSure Inc., 181 F.3d 1305, 1308 (Fed. Cir. 1999)). Without the vital contextual knowledge of the accused products or processes, this appeal takes on the attributes of something akin to an advisory opinion on the scope of the '982 patent. The problems with such an appeal, even if within this court's jurisdiction, have been noted in many of the court's prior cases. See, e.g., id. (citing Bayer

AG. v. Biovail Corp., 279 F.3d 1340, 1349 (Fed. Cir. 2002); CVI/Beta Ventures Inc. v. Tura LP, 112 F.3d 1146, 1160 n.7 (Fed. Cir. 1997)).

Nonetheless, the court notes that the district court issued a Rule 54(b) certification in this case. See Fed. R. Civ. P. 54(b). Rule 54(b) allows a district court to act as a “dispatcher” and “determine, in the first instance, the appropriate time when each ‘final decision’ upon ‘one or more but less than all’ of the claims in a multiple claims action is ready for appeal.” Pause Tech. LLC, v. Tivo Inc., 401 F.3d 1290, 1294 n.2 (Fed. Cir. 2005). Thus, while troubled by the pending counterclaims and the absence of a detailed infringement analysis, this court has jurisdiction under 28 U.S.C. § 1295(a)(1) (2000).

### III.

Turning to infringement, the '982 patent claims software that aggregates and integrates information from various systems for buying and selling securities (e.g., stocks, bonds, commodities and derivatives). See '982 patent, col. 1, ll. 7-13. The '982 patent specifically addresses a problem wherein a user with access to only a subset of these systems confronts substantial fluctuations in prices amongst these systems for a given security. Id. at col. 3, ll. 6-31. To illustrate, a buyer may not know of lower prices available on another system and/or a seller may not know of higher prices available on another system.

Embodiments of the '982 patent solve this problem by aggregating and integrating information from these various systems. One embodiment of the '982 patent depicted in Figure 5, for example, aggregates and integrates pricing data for a single security (e.g., DELL):

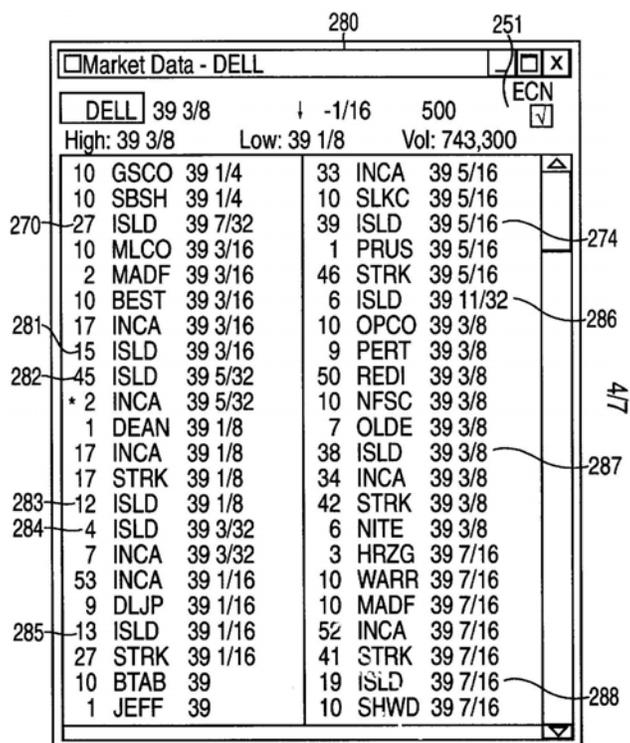


FIG. 5

Id. at col. 9, ll. 9-25. As shown above, the screen 280 “provides the customer with the ability to take advantage of price variations in a rapidly changing environment.” Id. at col. 9, ll. 23-25. Thus, the user is provided with considerable pricing information for a given security and, armed with this information, can make a transaction. The patent also discloses other embodiments.

With this backdrop, an infringement analysis is a two-step process: “First, the court determines the scope and meaning of the patent claims asserted . . . [and second,] the properly construed claims are compared to the allegedly infringing device.” Cybor Corp., 138 F.3d at 1454 (citations omitted). “Step one, claim construction, is a question of law, that we review de novo. Step two,

comparison of the claims to the accused device, is a question of fact, and requires a determination that every claim limitation or its equivalent be found in the accused device.” N. Am. Container, Inc. v. Plastipak Packaging, Inc., 415 F.3d 1335, 1344 (Fed. Cir. 2005) (citations omitted).

#### A. Waiver/Estoppel

Before this court can construe the claims, however, it must first address a potential waiver/estoppel issue surrounding Lava’s current claim construction theory. The waiver/estoppel issue relates to a change in Lava’s counsel during proceedings before the district court. Before and during the district court’s Markman hearing(s), Lava’s initial counsel argued the term “distributing” should be construed as “providing the consolidated or composite single list of open orders for a *given security* . . . to the users of the present invention” - i.e., for only *one security*. Pl. Lava Trading Inc.’s Opening Claim Constr. Br. at 53, Lava Trading Inc. v. Sonic Mgmt., LLC, 03-CV-842 & 03-CV-9382 (S.D.N.Y. 2003) (emphasis in original altered). The district court, however, rejected Lava’s proposed definition and adopted a construction requiring the distribution of data for *all securities* in the combined order book. Lava Trading, Inc. v. Sonic Trading Mgmt., LLC, 03-CV-9382 & 03-CV-0842, slip op. at 442-43 (S.D.N.Y. Dec. 8, 2004) (Claim Construction Order). Lava then obtained new counsel who advanced Lava’s current claim construction theory in a motion for reconsideration. Lava now interprets “distributing” as “providing to traders combined order book information . . . for *one security or more than one security*, as desired by the traders” - i.e., a *subset* of the combined order book.

Memorandum In Support Of Lava's Motion For Reconsideration Of A Portion Of The Court's Decision On Claim Constr. at 2, Lava Trading, Inc. v. Sonic Trading Mgmt., LLC, 03-CV-842 & 03-CV-9382 (S.D.N.Y. July 29, 2004) (emphasis added). The district court rejected Lava's motion for reconsideration without comment. Lava Trading, Inc. v. Sonic Trading Mgmt., LLC, 03-CV-842 & 03-CV-9382 (S.D.N.Y. Aug. 10, 2004).

Seizing on this change in Lava's claim construction theory, the defendants argue that Lava has waived its current theory and should be estopped from raising it on appeal. The defendants rely on cases in which a party presented an argument on appeal that substantially changed the scope of a prior position taken before a trial court. See, e.g., NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1296 (Fed. Cir. 2005) (waiver applied because RIM attempted to add a pull technology limitation to the claim that it did not raise before the trial court); SuperGuide Corp. v. DirecTV Enter., Inc., 358 F.3d 870, 889 (Fed. Cir. 2004) (waiver applied because SuperGuide stipulated to construction of the term "meet" at the trial court); Finnigan Corp. v. Int'l Trade Comm'n, 180 F.3d 1354, 1363 (Fed. Cir. 1999) (waiver applied because Finnigan's petition to the Commission did not point out the relevance of the lack of the term "unstable" in claim 17); Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1426 (Fed. Cir. 1997) (waiver applied because Sage did not present its construction of "elongated slot" to the trial court). Upon review, the court concludes these cases do not govern the facts of this case.

At the outset, judicial estoppel does not normally apply on appeal to prevent a party from altering an unsuccessful position before the trial court. See RF Del., Inc. v. Pacific Keystone Tech., Inc., 326 F.3d 1255, 1262 (Fed. Cir. 2003) (quoting Data Gen. Corp. v. Johnson, 78 F.3d 1556, 1565 (Fed. Cir. 1996)) (“The doctrine of judicial estoppel is that where a party *successfully* urges a particular position in a legal proceeding, it is estopped from taking a contrary position in a subsequent proceeding where its interests have changed.”) (emphasis in original). Thus, estoppel would not bar Lava from departing from a claim construction theory unsuccessfully advocated before the trial court.

Moreover, on the limited record on appeal, this court cannot discern any practical difference between Lava’s two theories. In response to both theories, the defendants counter that the intrinsic record limits the claims to a system that distributes and displays information for *all* securities. Thus, the slight change in Lava’s theory has not resulted in any meaningful change in the defendants’ position or evidence relied upon by the defendants at the trial court or on appeal. The absence of any practical differences in the case reinforces this court’s determination that Lava has not waived its current theory. See Harris Corp. v. Ericsson Inc., 417 F.3d 1241, 1252 (Fed. Cir. 2005) (waiver did not apply because the technical distinction in Ericsson’s argument did not make any practical difference in the case).

## B. The Disputed Limitations

On the merits, the parties dispute the meaning of two related limitations in the '982 patent, "distributing" and "displaying" a combined order book to a trader.

Independent claim 9 recites both limitations:

9. A data processing method for providing trading information to traders in a security or commodity from two or more alternative trading systems, comprising the steps of:

receiving order book information from each participating alternative trading system in order book information protocols native to the particular alternative trading system;

converting the information to a common system order book protocol;

integrating the order book information from each alternative trading system into a single order book;

distributing the combined order book to the traders in the common system order book protocol; and

displaying said combined order book to the traders.

'982 patent, col. 14, ll. 1-14 (emphasis added). The district court construed the disputed limitations during a Markman hearing without issuing a formal claim construction order. Instead, the district court stated its claim construction from the bench at the close of the hearing. A district court retains discretion to rule in this manner, but in this instance the trial court's oral recitation provides a very sparse explanation of the findings and reasoning supporting the claim construction.

Regarding the distributing limitation, the district court concluded that it "simply means distributing the combined order book -- that means in terms of the specification the consolidated order book -- pertaining to all orders from all ECN

members.” Claim Construction Order at 442-43. In other words, the distributing limitation requires the distribution of the whole combined order book to the trader. The district court similarly construed the displaying limitation, concluding the system must display the whole combined order book for the trader. Upon review, the district court’s interpretation of the “distributing” and “displaying” limitations conflicts with the plain meaning of claim 9 and excludes embodiments disclosed in the specification.

According to its preamble, claim 9 “provid[es] trading information to traders in a security or commodity” rather than “all” securities or commodities. ’982 patent, col. 14, ll. 1-2 (emphasis added). By selecting the word “a” instead of “all,” the Applicant set forth a method wherein the traders may request and receive information for only a subset of the securities (i.e., one or more). See KCJ Corp. v. Kinetics Concepts, Inc., 223 F.3d 1351, 1356 (Fed. Cir. 2000) (the word “a” generally means “one or more” in open-ended claims). Thus, the language of the claim itself does not require the system to distribute or display the whole combined order book.

Furthermore, the specification discloses embodiments that distribute and display information for only a subset of the combined order book. As an example, the specification describes one embodiment in which

the CCS 100 collects orders from each ECN, (ECN150 and ECN251) and electronic exchanges (NASDAQ 52), distributes a composite order book to the customers according to each customer’s memberships in the ECNs and rights to use an electronic exchange. Thus customer 10 may only receive a subset of the complete order book compiled by the CCS 100 corresponding to where the customer 10 is permissioned.

'982 patent, col. 6, ll. 59-66 (emphasis added).<sup>1</sup> According to this embodiment the customer only receives a “subset” of the combined/complete order book from the system. Thus, this embodiment must also make the system capable of “distributing” less than the whole combined order book to the customer – i.e., a subset of the combined order book.

The specification also discloses an embodiment in which bid and offer prices for Dell, a single security, are displayed on a market data screen:

Fig. 4 depicts a typical market data screen 250 of the present invention. Such screens can be customized as to data or order to conform to the customer's trading style. . . . The security under review is Dell Computer Corp. It was elected by inserting its ticker symbol DELL in space 252.

'982 patent, col. 8, ll. 47-54. This embodiment is further described in reference to Figure 5:

FIG. 5 shows pricing data that would be available to a customer of the present invention. Here, space 251 has been checked on screen 280 and ECN information integrated into the display. Screen 280 shows not only NASDAQ Level II data but also the full order book for the following three ECNs: Instinet, Island and Strike. For these ECN's, there are multiple bids and offers available for DELL, as opposed to just the best bid and offer. . . . Screen 280, thus, offers access to a greater amount of pricing information (thus greater liquidity), consolidated in one display. Thus, the entire order books of all ECN members and the market makers' bids and offers are consolidated into a single informative screen for any particular security. This additionally provides the customer with the ability to take advantage of price variations in a rapidly changing environment.

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<sup>1</sup> While NASDAQ information comes from a particular electronic exchange rather than an alternative trading system, claim 9 is an open-ended claim that encompasses more than simply information from alternative trading systems. See U.S. Patent No. 6,278,982, col. 2, ll. 16-29, col. 14, l. 3.

Id. at col. 9, ll. 9-25. Hence, the specification discloses embodiments that distribute and display information for only a subset of the securities (e.g., one in the embodiment of Figures 4 and 5) in the combined order book.

Reading the claim language and these embodiments in the specification, one of ordinary skill in this art would not limit the distributing and displaying limitations in the manner suggested by the district court. See Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) (“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.”). Rather, one of ordinary skill in the art would construe the distributing and displaying limitations as covering an embodiment that distributes and displays information for only a subset of the combined order book.

For at least these reasons, this court sets aside the district court’s claim construction. Because the final judgment orders are premised on the flawed claim construction, they too must be set aside. The case is remanded to the district court for further proceedings consistent with this opinion.

#### COSTS

Each party shall bear its own costs.

VACATED and REMANDED

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MAYER, Circuit Judge, dissenting.

Because there was no final judgment from which to appeal in the district court due to the interrelatedness of the infringement claim and the unresolved unenforceability counterclaim, I would dismiss this case for lack of jurisdiction. Therefore, I dissent.

The decision today is yet another example of the unfortunate consequences of Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995) (en banc), Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448 (Fed. Cir. 1998) (en banc), and Phillips v.

AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc), which cemented this court's jurisprudence with respect to claim construction as being purely a matter of law subject to de novo review. Because claim construction is treated as a matter of law chimerically devoid of underlying factual determinations, there are no "facts" on the record to prevent parties from presenting claim construction one way in the trial court and in an entirely different way in this court. By not dismissing this case, we issue a decision based on an undeveloped record. We set ourselves up to have to decide claim construction again later, which could well differ from the ruling today. Furthermore, allowance of an appeal of the trial court's perfunctory, offhand ruling from the bench, for all intents and purposes allows an interlocutory appeal of claim construction, which portends chaos in process.