

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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IBG LLC,  
INTERACTIVE BROKERS LLC, TRADESTATION GROUP, INC.  
TRADESTATION SECURITIES, INC.,  
TRADESTATION TECHNOLOGIES, INC., and IBFX, INC.,  
Petitioner,

v.

TRADING TECHNOLOGIES INTERNATIONAL, INC.,  
Patent Owner.

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Case CBM2015-00181  
Patent No. 7,676,411 B2

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

Opinion for the Board filed by PETRAVICK, *Administrative Patent Judge*.

Opinion dissenting-in-part filed by PLENZLER, *Administrative Patent  
Judge*.

PETRAVICK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

## INTRODUCTION

### *A. Background*

IBG LLC, Interactive Brokers LLC, TradeStation Group, Inc., TradeStation Securities, Inc., TradeStation Technologies, Inc., and IBFX, Inc. (collectively, “Petitioner”) filed a Petition requesting covered business method patent review of claims 1–28 (the “challenged claims”) of U.S. Patent No. 7,676,411 B2 (Ex. 1001, “the ’411 patent”). Paper 7 (“Pet.”). Trading Technologies International, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 22 (“Prelim. Resp.”). On March 7, 2016, we instituted a covered business method patent review (Paper 26, “Institution Decision” or “Inst. Dec.”) based upon Petitioner’s assertion that claims 1–28 are directed to patent ineligible subject matter under 35 U.S.C. § 101 and that those claims are unpatentable under 35 U.S.C. § 103. Inst. Dec. 35. Subsequent to institution, Patent Owner filed a Patent Owner Response (Paper 71, “PO Resp.”) and Petitioner filed a Reply (Paper 105, “Pet. Reply”) to Patent Owner’s Response.

We held a joint hearing of this case and several other related cases on October 19, 2016. Paper 131 (“Tr.”).

After oral hearing, the Federal Circuit issued a decision, *Trading Technologies Int’l, Inc., v. CQG, Inc.*, No. 2016-1616, 2017 WL 192716 (Fed. Cir. Jan. 18, 2017), determining that the claims of U.S. Patent Nos. 6,766,304 (“the ’304 patent”) and 6,772,132 (“the ’132 patent”) are directed to patent-eligible subject matter under § 101.<sup>1</sup> Petitioner and Patent Owner,

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<sup>1</sup> By virtue of a number of continuation filings, the ’411 patent is ultimately a continuation of the application resulting in the ’132 patent (Application No. 09/590,692). The ’304 patent resulted from a divisional filing of that application.

with authorization (Paper 134), each filed supplemental briefing addressing the impact of that decision on this proceeding. Paper 137 (“Pet. Br.”); Paper 135 (“PO Br.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–28 of the ’411 patent are patent ineligible under 35 U.S.C. § 101 and unpatentable under 35 U.S.C. § 103.

*B. Related Proceedings*

The parties indicate that the ’411 patent is the subject of numerous related U.S. district court proceedings, as well as the Federal Circuit Decision noted above. Pet. 2; Paper 11, 2–6; Paper 133, 1.

The ’411 patent was the subject of a petition for covered business method patent review in *TD Ameritrade Holding Corp. v. Trading Technologies Int’l, Inc.*, CBM2014-00133 (PTAB), for which trial was instituted, but later terminated.

Numerous patents are related to the ’411 patent and the related patents are or were the subject of numerous petitions for covered business method patent review and reexamination proceedings.

*C. Asserted Grounds*

Trial was instituted based on the following grounds.

References	Basis	Claims Challenged
N/A	§ 101	1–28

References	Basis	Claims Challenged
TSE, <sup>2</sup> Belden, <sup>3</sup> and Togher <sup>4</sup>	§ 103	1–28

Petitioner provides testimony from David Rho (Ex. 1023; “the Rho Declaration) and Kendyl A. Román (Ex. 1019; “the Román Declaration”) to support its challenges. Patent Owner provides testimony from Eric Gould-Bear (Ex. 2168; “the Gould-Bear Declaration”) and Christopher H. Thomas (Ex. 2169; “the Thomas Declaration”).

#### *D. The '411 Patent*

The '411 patent is titled “Click Based Trading with Intuitive Grid Display of Market Depth.” Ex. 1001, [54]. The invention of the '411 patent “is directed to the electronic trading of commodities.” *Id.* at 1:21–22. The invention of the '411 patent is a graphical user interface (“GUI”), named the Mercury display, and a method of using the Mercury display to trade a commodity. *Id.* at Abstract, 3:9–10.

##### *1. Conventional GUI*

Before beginning our analysis of the claims for patent-eligibility, a discussion of conventional methods of trading is helpful. Figure 2 of the '411 patent depicts a GUI. Ex. 1001, Fig. 2 (“the Fig. 2 GUI”). According to Patent Owner, the Fig. 2 GUI illustrates the “widely accepted conventional wisdom regarding” electronic trading. PO Resp. 1; *see also*

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<sup>2</sup> Tokyo Stock Exchange Operation System Division, Futures/Option Purchasing System Trading Terminal Operation Guide (1998) (Ex. 1006). Citations to this reference refer to its English translation (Ex. 1007).

<sup>3</sup> PCT Pub. No. WO 90/11571, pub. Oct. 4, 1990 (Ex. 1009, “Belden”). The page numbers referenced herein are those at the bottom of each page.

<sup>4</sup> U.S. Pat. No. 5,375,055, iss. Dec. 20, 1994 (Ex. 1005, “Togher”).

PO Resp. 28 (describing Fig. 2 GUI as “ubiquitous at the time” of the invention of the ’411 patent).

Figure 2 of the ’411 patent is reproduced below.

## FIG. 2

		201	202	203	204	205			
	Contract	Depth	BidQty	BidPrc	AskPrc	AskQty	LastPrc	LastQty	Total
1	CDHO	•	785	7626	7627	21	7627	489	8230
2			626	7625	7629	815			
3			500	7624	7630	600			
4			500	7623	7631	2456			
5			200	7622	7632	800			

The Fig. 2 GUI displays market information in columns. *See id.* at 5:20–27, 6:1–2. BidQty column 202 displays bid quantity, and BidPrc column 203 displays corresponding bid price levels. AskQty column 205 displays ask quantities, and AskPrc column 204 displays corresponding ask price levels. *Id.* at 5:20–27 and 6:3–11. The inside market (i.e., the best (highest) bid price and quantity and the best (lowest) ask price and quantity) is displayed in row one. *Id.* at 5:18–20. Rows 2–5 display the market depth, a list of next-best bids and asks. *Id.* at 5:20–24.

Prices and quantities change dynamically based on real time information from the market. *Id.* at 5:27–29. The inside market, however, is always displayed in row 1, a fixed location. PO Resp. 2. Christopher H. Thomas testifies that other prior art GUIs, which are similar to the Fig. 2 GUI, “displayed the locations for the best bid and ask prices such that the prices were displayed vertically (e.g., with the location for the best ask price being displayed above the location for the best bid price).” Ex. 2169 ¶ 60;

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