

#### UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	08/24/2010	7783556	04-225	8245

39310 7590 08/04/2010 MBHB/TRADING TECHNOLOGIES 300 SOUTH WACKER DRIVE **SUITE 3200** CHICAGO, IL 60606

#### **ISSUE NOTIFICATION**

The projected patent number and issue date are specified above.

#### Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 1131 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Scott F. Singer, Lake Bluff, IL; Michael J. Burns, Chicago, IL; Fred Monroe, Silver Springs, MD;

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	UNITED	States Patent and	TRADEN	MARK OFFICE					
						United Sta Address: COM P.O. E Alexa	TATES DEF ites Patent MISSIONER kox 1450 ndria, Virginia 2 uspto.gov	and Trac FOR PAT	NT OF COMMERCE lemark Office ENTS
	Bib Data Sheet						CONF	IRMA	TION NO. 8245
•	<b>SERIAL NUMBER</b> 10/800,295	FILING OR 371(c) DATE 03/12/2004 RULE	. (	C <b>LASS</b> 705	GRO	UP AR1 3695	UNIT		ATTORNEY OCKET NO. 04-225
	APPLICANTS Scott F. Singer, Michael J. Burns Fred Monroe, Si	Lake Bluff, IL; s, Chicago, IL; Iver Springs, MD;							
	** CONTINUING DAT/ ** FOREIGN APPLICA IF REQUIRED, FOREI ** 05/28/2004	TIONS ****************		ED					
	Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and	Allowance	ter itials	STATE OR COUNTRY IL	DRA	ETS WING 0	TOTA CLAI 27	MS	INDEPENDENT CLAIMS 2
	ADDRESS 39310								
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	448 No	for following	:			<b>1</b> .1	8 Fees (	Issue	)
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#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: <u>Mail</u> Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or <u>Fax</u> (571) 273-2885

INSTRUCTIONS: This for appropriate. All further con- indicated unless corrected I maintenance fee notification	below or directed otherwise	smitting the ISSU. Patent, advance or in Block 1, by (a)	E FEE and I ders and notif ) specifying a	PUBLICATION FEE (if red fication of maintenance fees a new correspondence addres	puired). Blocks 1 through 5 s will be mailed to the curren ss; and/or (b) indicating a sep	should be completed where t correspondence address as arate "FEE ADDRESS" for		
CURRENT CORRESPONDENC MBHB/Trading Techno 300 South Wacker Dri	B ADDRESS (Note: Use Block 1 for	any change of address)		Note: A certificate o Fee(s) Transmittal. 1 papers. Each additio have its own certific:	of mailing can only be used f his certificate cannot be used nal paper, such as an assignm- tte of mailing or transmission.	or domestic mailings of the for any other accompanying ent or formal drawing, must		
Suite 3200 Chicago, IL 60606				C I hereby certify that States Postal Service addressed to the M transmitted to the US	ertificate of Mailing or Tran- this Fee(s) Transmittal is bein with sufficient postage for fu- ail Stop ISSUE FEE address PTO (571) 273-2885, on the d	smission g deposited with the United rst class mail in an envelope above, or being facsimile late indicated below.		
					*****	(Depositor's name)		
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					***************************************	(Date)		
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APPLICATION NO.	FILING DATE	1	FIRST NAMED	DINVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/800,295 TITLE OF INVENTION:	03/12/2004		Scott F.	Singer	04-225	8245		
APPLN. TYPE	SMALL ENTITY	ISSUE FE	76 T	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE		
	NO	\$1510		\$0	\$1510	07/16/2010		
nonprovisional		\$1510	·			07/10/2010		
EXAM	IINER	ART UNI	TT	CLASS-SUBCLASS				
CFR 1.363). Change of correspond Address form PTO/SB/12 "Fee Address" indicat PTO/SB/47; Rev 03-02 o Number is required.	e address or indication of "Fe lence address (or Change of 22) attached. tion (or "Fee Address" Indica r more recent) attached. Use RESIDENCE DATA TO B	Correspondence tion form of a Customer	<ul> <li>(1) the namor agents C</li> <li>(2) the namor registered a 2 registered listed, no n</li> </ul>	ting on the patent front page, ness of up to 3 registered pat R, alternatively, ne of a single firm (having as attorney or agent) and the na d patent attorneys or agents. ame will be printed. (print or type)	ent attorneys 1 a member a2 mes of up to	l Boehnen Berghoff LLP		
PLEASE NOTE: Unless recordation as set forth in	an assignee is identified be 137 CFR 3.11. Completion	low, no assignce o of this form is NOT	lata will appe a substitute f	ear on the patent. If an assignment.	gnee is identified below, the c	locument has been filed for		
(A) NAME OF ASSIGN				E: (CITY and STATE OR CO				
Trading Technologies Ir	ternational, Inc.	С	hicago, IL					
	assignee category or catego		*		Corporation or other private gr	oup entity 🔲 Government		
4a. The following fee(s) are	enclosed:	4b.	. Payment of I					
Issue Fee	<b>n</b> - 11 - 11 - 14	15	A check in the amount of the fee(s) is enclosed.					
Advance Order - # of	mall entity discount permitte		Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to					
wa mavanee order - # or	copies_		Deposit Acco	ount Number 13249	20 .	crean any overpayment, to		
·	(from status indicated above MALL ENTITY status, See .		<b>V</b> h Amelia	net is an longer sloiming SM	ALL ENTITY status. See 37 C	ER 1 27(~)(2)		
The Director of the USPTO NOTE: The Issue Fee and P	is requested to apply the Issu	e Fee and Publicat vill not be accepted	ion Fee (if an from anyone	y) or to re-apply any previou:	sly paid issue fee to the applica gistered attorney or agent; or t	tion identified above.		
Authorized Signature /T	'homas J. Loos/		****	Date July	/ 8, 2010			
Typed or printed name	Thomas J. Loos			Registratio	<sub>m No.</sub> 60,161			
an application. Confidential submitting the completed ap this form and/or suggestions	ity is governed by 35 U.S.C. oplication form to the USPT of reducing this burden, sh inia 22313-1450. DO NOT S	122 and 37 CFR 1 O. Time will vary sould be sent to the	.14. This coll depending up Chief Inform	lection is estimated to take 12 on the individual case. Any nation Officer, U.S. Patent an	the public which is to file (an 2 minutes to complete, includi comments on the amount of ti d Trademark Office, U.S. Dep SS. SEND TO: Commissioner	ng gathering, preparing, and ime you require to complete partment of Commerce, P.O.		

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

#### **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

#### PATENT IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 04-225)

In re Application of:	)	
Scott F. Singer et al.	) ) Group Art Unit: 369:	5
Serial No.: 10/800,295	) Confirmation No.: 82	245
Filed: March 12, 2004	) Examiner: Liu, Chia )	ŀ-Yi

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### NOTICE OF CHANGE OF STATUS TO LARGE ENTITY (37 C.F.R. § 1.27(g)(2))

Dear Sir:

Notice is hereby given under 37 C.F.R. § 1.27(g)(2) that small entity status is no longer claimed by the applicant.

Respectfully submitted,

Date: July 8, 2010

By: /Thomas J. Loos/ Thomas J. Loos Registration No. 60,161

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (MBHB Case No. 04-225)

In re Application of:	)
Scott F. Singer et al.	) Group Art Unit: 3695
Serial No.: 10/800,295	) Confirmation No.: 8245
Filed: March 12, 2004	) ) Examiner: Liu, Chia-Yi )

**Commissioner for Patents** P.O. Box 1450 Alexandria, VA 22313-1450

# Mail Stop Issue Fee

#### **COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE**

Applicant thanks Examiner Liu for the thorough examination and for recognizing the allowability of the subject matter of the claims. Applicant respectfully submits that the characterization of the invention of the claims in the Examiner's Statements for Reasons for Allowance in the Notices of Allowance mailed January 6, 2010 and April 16, 2010 may not take into account the entirety of the features of the invention reflected in the claims, the specification, and the prosecution history of the application. To that end, Applicant points out that the claims, specification, and prosecution history in their entirety provide an adequate basis for allowability.

Applicant also notes that there may be additional reasons for allowance that have not been specifically stated. Applicant respectfully submits that, notwithstanding the Examiner's Statements of Reasons for Allowance, each of the allowed claims is patentable in its own right, for other reasons raised during prosecution and/or explained in the application.

To the extent that specific parts of the examiner's statement of reasons for allowance may pertain to features appearing in some but not all claims, Applicant respectfully submits that the Examiner has thoroughly examined the claims, recognized the features appearing or not appearing in each of the claims, and properly found each of the claims to be allowable. To the extent that the Examiner has paraphrased claim features, Applicant respectfully submits that the claims have been construed in view of their language in light of the specification and not limited by any of the Examiner's statements or by the recitation therein of any specific claim features.

Further, the statement of reasons for allowance includes statements regarding the disclosure of certain pieces of art. While Applicant does not necessarily agree with these characterizations of what is disclosed by the art, Applicant agrees with Examiner that the application is allowable over the disclosure of the cited art.

Respectfully submitted,

Dated: July 8, 2010

By: /Thomas J. Loos/ Thomas J. Loos Reg. No. 60,161

Electronic Patent Application Fee Transmittal							
Application Number:	10800295						
Filing Date:	12	12-Mar-2004					
Title of Invention:	SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE						
First Named Inventor/Applicant Name:	Scott F. Singer						
Filer:	Thomas J. Loos						
Attorney Docket Number:	Attorney Docket Number: 04-225						
Filed as Large Entity							
Utility under 35 USC 111(a) Filing Fees							
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)		
Basic Filing:							
Pages:							
Claims:							
Miscellaneous-Filing:							
Petition:							
Patent-Appeals-and-Interference:							
Post-Allowance-and-Post-Issuance:							
Utility Appl issue fee		1501	1	1510	1510		
Extension-of-Time:							

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
	Total in USD (\$)			

Electronic Acknowledgement Receipt				
EFS ID:	7976164			
Application Number:	10800295			
International Application Number:				
Confirmation Number:	8245			
Title of Invention:	SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE			
First Named Inventor/Applicant Name:	Scott F. Singer			
Customer Number:	39310			
Filer:	Thomas J. Loos			
Filer Authorized By:				
Attorney Docket Number:	04-225			
Receipt Date:	08-JUL-2010			
Filing Date:	12-MAR-2004			
Time Stamp:	14:52:23			
Application Type:	Utility under 35 USC 111(a)			

### Payment information:

Submitted with Payment	yes			
Payment Type	Deposit Account			
Payment was successfully received in RAM	\$1510			
RAM confirmation Number	1045			
Deposit Account	132490			
Authorized User				
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:				
Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)				
Charge any Additional Fees required under 37 C.F.R. S	ection 1.17 (Patent application and reexamination processing fees)			

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Doument (DTO SED)	04-225 IssueFee 070810.pdf	260086		2
1	Issue Fee Payment (PTO-85B)	04-225_issueree_070810.pdf	6e60dd726bfbd0e28a48723c41f3942a958 35a22	no	
Warnings:		·	·		
Information:					
2	Miscellaneous Incoming Letter	04-225_change_of_entity_stat	72661		1
2	Miscellaneous incoming Letter	us_070810.pdf	6ff2d60643746d77385209b001161244e30 b6945	no	I
Warnings:					
Information:		1			
3		04-225_Comments_on_Reason	75960	20	2
3	Miscellaneous Incoming Letter	s_for_Allowance.pdf	6cf997ca68558d6f8a21f6169637a602ab56 ede0	no	2
Warnings:		·	· · ·		
Information:					
4	Fee Worksheet (PTO-875)	for informalf	30034		2
4	ree worksheet (PTO-875)	fee-info.pdf	a2180dbc5e78ff953e79f26bc430b9b14e27 8972	no	2
Warnings:					
Information:					
		Total Files Size (in bytes)	: 43	38741	
characterized	edgement Receipt evidences recei l by the applicant, and including pa described in MPEP 503.				
lf a new appli	<u>ions Under 35 U.S.C. 111</u> cation is being filed and the applic				
lf a new appli 1.53(b)-(d) an		FR 1.54) will be issued in due			

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

39310759004/16/2010MBHB/TRADING TECHNOLOGIES300 SOUTH WACKER DRIVESUITE 3200CHICAGO, IL 60606

EXAMINER				
LIU, CHIA-YI				
ART UNIT PAPER NUMBER				
3695				

DATE MAILED: 04/16/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/800,295	03/12/2004	Scott F. Singer	04-225	8245	

TITLE OF INVENTION: SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$0	\$755	07/16/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED</u>. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:	If the SMALL ENTITY is shown as NO:
A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.	A. Pay TOTAL FEE(S) DUE shown above, or
B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or	B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form,	together with applicable fee(s),	to: Mail	Mail Stop ISSUE FEE

04/16/2010

39310

**SUITE 3200** 

7590

300 SOUTH WACKER DRIVE

MBHB/TRADING TECHNOLOGIES

- Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450
- or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

#### Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

CHHOLOO H (O(O)			
CHICAGO, IL 60606			(Depositor's name)
			(Signature)
			(Date)
APPLICATION NO. FILING DATE FIRST NAMED IN	ENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800.295 03/12/2004 Scott F. Sir	er	04-225	8245

TITLE OF INVENTION: SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$0	\$755	07/16/2010
EXAN	MINER	ART UNIT	CLASS-SUBCLASS	]		
LIU, C	HIA-YI	3695	705-037000	1		
CFR 1.363). Change of corresp Address form PTO/S "Fee Address" inc PTO/SB/47; Rev 03- Number is required 3. ASSIGNEE NAME A	AND RESIDENCE DATA lless an assignee is ident th in 37 CFR 3.11. Comj	nge of Correspondence "Indication form ed. Use of a Customer A TO BE PRINTED ON	or agents OR, alternati (2) the name of a singl registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or typ data will appear on the p T a substitute for filing an	3 registered patent attorn vely, e firm (having as a memb tgent) and the names of u rneys or agents. If no nam printed.	er a 2 p to le is 3 dentified below, the doc	ument has been filed for
4a. The following fee(s) Issue Fee Publication Fee (1		4 permitted)	<ul> <li>rinted on the patent) :</li> <li>b. Payment of Fee(s): (Plea</li> <li>A check is enclosed.</li> <li>Payment by credit car</li> <li>The Director is hereby</li> </ul>	1	viously paid issue fee sh	own above)
a. Applicant clain	atus (from status indicate ns SMALL ENTITY statu nd Publication Fee (if req records of the United Sta	1s. See 37 CFR 1.27.		ger claiming SMALL EN	ГІТҮ status. See 37 CFR	1.27(g)(2).
Authorized Signature				Date		
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Alexandria, Virginia 22.	313-1450.		on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO spond to a collection of inf			

	ITED STATES PATE	NT AND TRADEMARK OFFICE	UNITED STATES DEPAR United States Patent and ' Address: COMMISSIONER F P.O. Box 1450 Alexandria, Virginia 223 www.usplo.gov	OR PATENTS		
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/800,295	03/12/2004	Scott F. Singer	04-225 8245			
39310 75	90 04/16/2010		EXAM	IINER		
MBHB/TRADIN	G TECHNOLOGIE	S	LIU, CHIA-YI			
300 SOUTH WAC	KER DRIVE		ART UNIT	PAPER NUMBER		
SUITE 3200 CHICAGO, IL 606	506		3695 DATE MAILED: 04/16/2010			

#### Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 733 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 733 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Page 3 of 3

	Application No.	Applicant(s)
	10/800,295	SINGER ET AL.
Notice of Allowability	Examiner	Art Unit
		2605
	CHIA-YI LIU	3695
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS Is herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31	S (OR REMAINS) CLOSED i i) or other appropriate comm <b>RIGHTS</b> . This application is	n this application. If not included unication will be mailed in due course. <b>THIS</b>
1. X This communication is responsive to the RCE filed 3/30/2	<u>2010</u> .	
2. 🔀 The allowed claim(s) is/are <u>28-49</u> .		
<ul> <li>3. ☐ Acknowledgment is made of a claim for foreign priority of a) ☐ All b) ☐ Some* c) ☐ None of the:</li> </ul>	under 35 U.S.C. § 119(a)-(d)	or (f).
1. 🗌 Certified copies of the priority documents hav	ve been received.	
2. 🗌 Certified copies of the priority documents hav	e been received in Applicati	on No
3. 🔲 Copies of the certified copies of the priority d	ocuments have been receive	ed in this national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE noted below. Failure to timely comply will result in ABANDON THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		e a reply complying with the requirements
4. A SUBSTITUTE OATH OR DECLARATION must be subr INFORMAL PATENT APPLICATION (PTO-152) which give		
5. CORRECTED DRAWINGS ( as "replacement sheets") mu	ust be submitted.	
(a) 🔲 including changes required by the Notice of Draftspe	rson's Patent Drawing Revie	w ( PTO-948) attached
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date	_·	
(b) including changes required by the attached Examine Paper No./Mail Date	r's Amendment / Comment c	r in the Office action of
Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in		
6. DEPOSIT OF and/or INFORMATION about the dep attached Examiner's comment regarding REQUIREMENT		
Attachment(s)		
1. INotice of References Cited (PTO-892)	5. 🗌 Notice of Ir	nformal Patent Application
2. Notice of Draftperson's Patent Drawing Review (PTO-948)		Summary (PTO-413),
3. X Information Disclosure Statements (PTO/SB/08),	Paper No. 7. 🔲 Examiner's	/Mail Date Amendment/Comment
Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's	Statement of Reasons for Allowance
of Biological Material	9. 🔲 Other	
U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)	Notice of Allowability	Part of Paper No./Mail Date 20100406

#### DETAILED ACTION

This communication is in response to a Request for Continued Examination (RCE) submitted 3/30/2010. Claims 28-49 are pending in this application.

#### Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record (Burns US 2003/0004852 A1) teaches receiving by a computing device a current highest bid price and a current lowest ask price for a tradable object from an electronic exchange and displaying via the computing device the plurality of values along a value axis. Even though, the prior art of record teaches a method for displaying market information on a graphical user interface performing the above mentioned steps, the prior art of record fails to teach computing a plurality of values based on a long or short position wherein each of the values represents a profit or loss if the long or short position is closed at a price level and displaying a first indicator at a first location corresponding to a first value along the value axis wherein the first indicator represents a particular price and the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular price and moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the particular price. For these reasons claims 28 and 39 are deemed to be allowable over the prior art of record, and claims 29-38 and 40-49 are allowed by dependency.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee, and to avoid processing delays, should preferably accompany the issue free. Such submissions should be clearly labeled Comments on Statement of Reasons for allowance.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571)270-1573. The examiner can normally be reached on Mon-Thurs alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Kyle can be reached on (571) 272-6746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> CHIA-YI LIU Examiner Art Unit 3695

/Thu Thao Havan/ Primary Examiner, Art Unit 3695 Doc code: IDS

PTO/SB/08a (01-10) Approved for use through 07/31/2012. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Doc description: Information Disclosure Statement (IDS) Filed

	Application Number		10800295		
	Filing Date		2004-03-12		
INFORMATION DISCLOSURE	First Named Inventor	Scott	F. Singer		
(Not for submission under 37 CFR 1.99)	Art Unit		3696		
	Examiner Name	Chia-'	Yi Liu		
	Attorney Docket Number		04-225		

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	Application Number		10800295		
	Filing Date		2004-03-12		
INFORMATION DISCLOSURE	First Named Inventor	Scott	F. Singer		
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3696		
	Examiner Name	Chia-`	Yi Liu		
	Attorney Docket Number		04-225		

If you wis	h to ao	dd additional Foreign Patent Document citation information	please click the Add buttor	n Add			
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		EXAMINER SIGNATU	RE				
Examiner	Signa	ture /Chia-yi Liu/	Date Considered	04/06/2010			
		itial if reference considered, whether or not citation is in cor conformance and not considered. Include copy of this form					
Standard S	Г.З). <sup>З</sup> F cument	of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. <sup>2</sup> En For Japanese patent documents, the indication of the year of the reign of the by the appropriate symbols as indicated on the document under WIPO Sta anslation is attached.	e Emperor must precede the set	rial number of the patent doc	ument.		

			Ar	oplication	/Control N	lo.	Applic Reexa	ant(s	s)/Pa	tent Unde	r
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			CH	HA-YI LIU			3696				
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Part of Paper No.: 20100406

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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Issue Classification	10800295	SINGER ET AL.
	Examiner	Art Unit
	CHIA-YI LIU	3696

ORIGINAL							INTERNATIONAL CLASSIFICATION							
	CLASS			SUBCLASS			CLAIMED NON-CLAIMED							N-CLAIMED
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	CROSS REFERENCE(S)											_		
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	Claims renumbered in the same order as presented by applicant				CPA T.D.			🗌 R.1.47							
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3	30	19	46												
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/CHIA-YI LIU/ Examiner.Art Unit 3696	4/6/2010	Total Clain	ns Allowed:
(Assistant Examiner)	(Date)	2	2
/THU-THAO HAVAN/ Primary Examiner.Art Unit 3695	04/09/2010	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	8

U.S. Patent and Trademark Office

Part of Paper No. 20100406

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	110800295	SINGER ET AL.
	Examiner	Art Unit
	LIU, CHIA-YI	3609

SEARCHED	
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Class	Subclass	Date	Examiner
705	39-41	8/23/2007	C.L.
705	39-41	4/24/2008	C.L.

SEARCH NOTE	ES	
Search Notes	Date	Examiner
East Search	8/23/2007	C.L.
East Search	4/24/2008	C.L.
Forward/Backward Citation	12/8/2009	C.L.
Inventor/Assignee Search	12/8/2009	C.L.
STICS Search	12/8/2009	C.L.

	INTERFERENCE SEARCH		
Class	Subclass	Date	Examiner
705	39-41	12/8/2009	C.L.

U.S. Patent and Trademark Office

Part of Paper No.: 20091124

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## Doc code: RCEX Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
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 Request for Continued Examination (RCE)
 Approved for use inrough of/31/2012. Units 045:1-0031

 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)								
Application Number	10800295	Filing Date	2004-03-12	Docket Number (if applicable)	04-225	Art Unit	3696	
First Named Inventor	Scott F. Singer	- I		Examiner Name	Chia-Yi Liu	L		
Request for C	This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV							
	SUBMISSION REQUIRED UNDER 37 CFR 1.114							
in which they	Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).							
	y submitted. If a f on even if this boy			any amendments file	ed after the final Office action	may be cor	isidered as a	
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	Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)							
Other	Other							
				FEES				
The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.         Image: State of the Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 132490								
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#### Doc code: RCEX Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09) Request for Continued Examination (RCE) Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner				
Signature	/Thomas J. Loos/	Date (YYYY-MM-DD)	2010-03-30	
Name	Thomas J. Loos	Registration Number	60161	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

#### **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal					
Application Number:	10	300295			
Filing Date:	12	Mar-2004			
Title of Invention:	SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE				
First Named Inventor/Applicant Name:	Sco	ott F. Singer			
Filer:	omas J. Loos				
Attorney Docket Number:	04-225				
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:	Petition:				
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for continued examination	1801	1	810	810
	Tot	al in USD	(\$)	810

Electronic Acknowledgement Receipt					
EFS ID:	7316306				
Application Number:	10800295				
International Application Number:					
Confirmation Number:	8245				
Title of Invention:	SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE				
First Named Inventor/Applicant Name:	Scott F. Singer				
Customer Number:	39310				
Filer:	Thomas J. Loos				
Filer Authorized By:					
Attorney Docket Number:	04-225				
Receipt Date:	30-MAR-2010				
Filing Date:	12-MAR-2004				
Time Stamp:	15:04:22				
Application Type:	Utility under 35 USC 111(a)				

### Payment information:

Submitted with Payment	yes				
Payment Type	Deposit Account				
Payment was successfully received in RAM	\$810				
RAM confirmation Number	1329				
Deposit Account	132490				
Authorized User					
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:					
Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)					
Charge any Additional Fees required under 37 C.F.R. S	ection 1.17 (Patent application and reexamination processing fees)				

File Listin	g:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.
	Information Disclosure Statement (IDS)		1121785		
1	1 Filed (SB/08) 04-225_IDS_033010.pdf		56412415c5e8267611c6dcbe6de4ec01195 ffa38	no	4
Warnings:			11	I	
Information:					
2 Request for Continued Examination 04-225		04-225_RCE_033010.pdf	1031589	no	3
2	(RCE)	04-225_NCL_055010.pdf	5c880713a5c03045540463e36af1a039960 6867e	110	J
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Information					
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2	3 Fee Worksheet (PTO-875) fee-info.pdf		266d069f463a60596ad00d274d9641e2100	no	2
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	Application Number		10800295	
	Filing Date		2004-03-12	
INFORMATION DISCLOSURE	First Named Inventor Scott		F. Singer	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3696	
	Examiner Name	Chia-	Yi Liu	
	Attorney Docket Numb	er	04-225	

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Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue D	Issue Date   Name of Patentee of Applicant		Releva	,Columns,Lines where ant Passages or Relev s Appear				
	1	6772132		2004-08	9-03	Kemp II						
	2	6938011		2005-08	3-30	Kemp II		Kemp II				
	3	7127424		2006-10	)-24	Kemp II						
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	1											

	Application Number		10800295	
	Filing Date		2004-03-12	
INFORMATION DISCLOSURE	First Named Inventor Scot		t F. Singer	
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	Examiner Name	Chia-'	Yi Liu	
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	Application Number		10800295	
	Filing Date		2004-03-12	
INFORMATION DISCLOSURE	First Named Inventor Scot		tt F. Singer	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3696	
	Examiner Name Ch		Yi Liu	
	Attorney Docket Numb	er	04-225	

<b>CERTIFICATION ST</b>	ATEMENT
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Please see	37 CFR 1.97	and 1.98 to ma	ke the appropriate	e selection(s):	

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

#### OR

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

X None

#### SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Thomas J. Loos/	Date (YYYY-MM-DD)	2010-03-30
Name/Print	Thomas J. Loos	Registration Number	60161

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.** 

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

#### NOTICE OF ALLOWANCE AND FEE(S) DUE

39310759001/06/2010MBHB/TRADING TECHNOLOGIES300 SOUTH WACKER DRIVESUITE 3200CHICAGO, IL 60606

EXAMINER				
LIU, C	HIA-YI			
ART UNIT	PAPER NUMBER			
3696	-			

DATE MAILED: 01/06/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/800,295	03/12/2004	Scott F. Singer	04-225	8245	

TITLE OF INVENTION: SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$0	\$755	04/06/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED</u>. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:	If the SMALL ENTITY is shown as NO:
A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.	A. Pay TOTAL FEE(S) DUE shown above, or
B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or	B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

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01/06/2010

39310

**SUITE 3200** 

7590

300 SOUTH WACKER DRIVE

MBHB/TRADING TECHNOLOGIES

**Commissioner for Patents** 

- P.O.	Box 1450		
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Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

#### Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

HICAGO, IL 60606				(Depositor's name)
				(Signature)
				(Date)
PPLICATION NO. FILING DATE	FIRST NAMED INVEN	TOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800.295 03/12/2004	Scott F. Singer		04-225	8245

TITLE OF INVENTION: SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$0	\$755	04/06/2010
EXAN	IINER	ART UNIT	CLASS-SUBCLASS			
LIU, C	HIA-YI	3696	705-037000	,		
CFR 1.363). Change of corresp Address form PTO/S "Fee Address" inc	ence address or indicatio pondence address (or Cha B/122) attached. lication (or "Fee Address 22 or more recent) attach	nge of Correspondence	(2) the name of a singl registered attorney or a	3 registered patent attorr vely, e firm (having as a memb igent) and the names of u rnevs or agents. If no nam	er a 2 p to	
PLEASE NOTE: Un recordation as set for (A) NAME OF ASSI	less an assignee is ident th in 37 CFR 3.11. Comj GNEE	ified below, no assignee bletion of this form is NO	THE PATENT (print or typ data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY rinted on the patent) :	atent. If an assignee is ic assignment. and STATE OR COUNT	'RY)	
4a. The following fee(s) Issue Fee Publication Fee (1	0 0 7	4 permitted)	<ul> <li>b. Payment of Fee(s): (Plea</li> <li>A check is enclosed.</li> <li>Payment by credit car</li> </ul>	1	viously paid issue fee sh	own above)
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Authorized Signature				Date		
Typed or printed nam	ne			Registration No.		
an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 222	tiality is governed by 35 d application form to the ions for reducing this bu Virginia 22313-1450. DC 313-1450.	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to th NOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO spond to a collection of inf	imated to take 12 minutes idual case. Any comment r, U.S. Patent and Traden D THIS ADDRESS. SENI	to complete, including s on the amount of time nark Office, U.S. Depart D TO: Commissioner for	gathering, preparing, and you require to complete ment of Commerce, P.O. Patents, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	03/12/2004	Scott F. Singer	04-225	8245
39310 75	90 01/06/2010		EXAN	IINER
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300 SOUTH WAC	KER DRIVE		ART UNIT	PAPER NUMBER
SUITE 3200 CHICAGO, IL 606	506		3696 DATE MAILED: 01/06/201	0

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 733 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 733 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Page 3 of 3

	Application No.	Applicant(s)
	10/800,295	SINGER ET AL.
Notice of Allowability	Examiner	Art Unit
	CHIA-YI LIU	3696
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31	(OR REMAINS) CLOSED i ) or other appropriate comm RIGHTS. This application is	n this application. If not included unication will be mailed in due course. <b>THIS</b>
1. X This communication is responsive to the RCE filed 11/19/	<u>2009</u> .	
2. 🔀 The allowed claim(s) is/are <u>28-49</u> .		
<ul> <li>3. ☐ Acknowledgment is made of a claim for foreign priority u</li> <li>a) ☐ All</li> <li>b) ☐ Some*</li> <li>c) ☐ None of the:</li> </ul>		or (f).
1. Certified copies of the priority documents hav		
2. Certified copies of the priority documents hav		
3. Copies of the certified copies of the priority do	ocuments have been receive	a in this national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONI THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		e a reply complying with the requirements
4. A SUBSTITUTE OATH OR DECLARATION must be subr INFORMAL PATENT APPLICATION (PTO-152) which give		
5. CORRECTED DRAWINGS ( as "replacement sheets") mu	st be submitted.	
(a) 🔲 including changes required by the Notice of Draftsper	son's Patent Drawing Revie	w ( PTO-948) attached
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date	_·	
(b) including changes required by the attached Examiner Paper No./Mail Date	's Amendment / Comment c	r in the Office action of
Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in		
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT</li> </ol>		
Attachment(s)		
1. Notice of References Cited (PTO-892)		nformal Patent Application
2. Notice of Draftperson's Patent Drawing Review (PTO-948)		Summary (PTO-413), /Mail Date
<ol> <li>☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date</li> </ol>	7. 🗌 Examiner's	Amendment/Comment
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. 🛛 Examiner's 9. 🔲 Other	Statement of Reasons for Allowance
/Hani M. Kazimi/		
Primary Examiner, Art Unit 3691		
U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)	otice of Allowability	Part of Paper No./Mail Date 2009112

## DETAILED ACTION

This communication is in response to a Request for Continued Examination (RCE) submitted 11/19/2009. Claims 28-49 are pending in this application.

## Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record (Burns US 2003/0004852 A1) teaches receiving by a computing device a current highest bid price and a current lowest ask price for a tradable object from an electronic exchange and displaying via the computing device the plurality of values along a value axis. Even though, the prior art of record teaches a method for displaying market information on a graphical user interface performing the above mentioned steps, the prior art of record fails to teach computing a plurality of values based on a long or short position wherein each of the values represents a profit or loss if the long or short position is closed at a price level and displaying a first indicator at a first location corresponding to a first value along the value axis wherein the first indicator represents a particular price and the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular price and moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the particular price. For these reasons claims 28 and 39 are deemed to be allowable over the prior art of record, and claims 29-38 and 40-49 are allowed by dependency.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee, and to avoid processing delays, should preferably accompany the issue free. Such submissions should be clearly labeled Comments on Statement of Reasons for allowance.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571)270-1573. The examiner can normally be reached on Mon-Thur alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HANI KAZIMI can be reached on (571) 272-6745. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> CHIA-YI LIU Examiner Art Unit 3696

/Hani M. Kazimi/ Primary Examiner, Art Unit 3691

Notice of References Cited	Application/Control No. 10/800,295	Applicant(s)/Pater Reexamination SINGER ET AL.	nt Under
	Examiner	Art Unit	
	CHIA-YI LIU	3696	Page 1 of 1

#### **U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	А	US-			
	В	US-			
	С	US-			
	D	US-			
	Е	US-			
	F	US-			
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	н	US-			
	Ι	US-			
	J	US-			
	к	US-			
	L	US-			
	М	US-			

#### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	0					
	Р					
	Q					
	R					
	S					
	т					

#### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Star Research Inc, "Profit Loss vs Price," April 19, 2001, pages 1-24
	v	QBL Software, "Radar Screen," April 13, 2000, pages 1-4
	w	
	x	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Issue Classification	10800295	SINGER ET AL.
	Examiner	Art Unit
	CHIA-YI LIU	3696

	CROSS REFERENCE(S)			ORIGINAL						INTERNATIONAL CLASSIFICATION							TION
	CLASS			SUBCLASS			CLAIMED NON-CLAIMED						N-CLAIMED				
705			37			G	0	6	Q	40 / 00 (2006.01.01)							
	CROSS REFERENCE(S)																
CLASS	CLASS SUBCLASS (ONE SUBCLASS PER BLOCK)				CK)												

X	Claims re	numbere	d in the s	ame orde	r as prese	ented by a	applicant	□ CPA □ T.D. □ R.1.47							
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/CHIA-YI LIU/ Examiner.Art Unit 3696	12/08/2009	Total Clain	ns Allowed:
(Assistant Examiner)	(Date)	2	2
/Hani Kazimi/ Primary Examiner.Art Unit 3691	12/13/2009	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	8

U.S. Patent and Trademark Office

Part of Paper No. 20091124

# **EAST Search History**

# EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	32	((SCOTT) near2 (SINGER)).INV.	USPAT	OR	OFF	2009/12/08 16:55
L2	147	((MICHAEL) near2 (BURNS)).INV.	USPAT	OR	OFF	2009/12/08 16:55
L3	9	((FRED) near2 (MONROE)).INV.	USPAT	OR	OFF	2009/12/08 16:55

12/8/2009 4:58:18 PM

	Index of Claims			oplication 1800295 <b>xaminer</b> HIA-YI LIU		No.	Reexa SINGE	Applicant(s)/Patent Under Reexamination SINGER ET AL. Art Unit 3696				
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4	31			✓	✓	=		
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Part of Paper No.: 20091124

						Application/Control No.				Applicant(s)/Patent Under Reexamination				
Index of Claims				10	10800295			SINGE	SINGER ET AL.					
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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	10800295	SINGER ET AL.
	Examiner	Art Unit
	LIU, CHIA-YI	3609

Class	Subclass	Date	Examiner
705	39-41	8/23/2007	C.L.
705	39-41	4/24/2008	C.L.

SEARCH NOTE	ES	
Search Notes	Date	Examiner
East Search	8/23/2007	C.L.
East Search	4/24/2008	C.L.
Forward/Backward Citation	12/8/2009	C.L.
Inventor/Assignee Search	12/8/2009	C.L.
STICS Search	12/8/2009	C.L.

	INTERFERENCE SEARCH		
Class	Subclass	Date	Examiner
705	39-41	12/8/2009	C.L.

U.S. Patent and Trademark Office

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Part of Paper No.: 20091124



# UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	03/12/2004	Scott F. Singer	04-225	8245
	7590 11/27/200 NG TECHNOLOGIES	-	EXAM	INER
300 SOUTH W SUITE 3200	ACKER DRIVE		LIU, CH	HIA-YI
CHICAGO, IL	60606		ART UNIT	PAPER NUMBER
			3696	
			NOTIFICATION DATE	DELIVERY MODE
			11/27/2009	ELECTRONIC

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mbhb.com williamsd@mbhb.com

	Application No.	Applicant(s)							
Interview Summary	10/800,295	SINGER ET AL.							
interview Summary	Examiner	Art Unit							
	CHIA-YI LIU	3696							
All participants (applicant, applicant's representative, PTO	personnel):								
(1) <u>CHIA-YI LIU</u> .	(3) <u>MONICA DUDEK</u> .								
(2) <u>HANI KAZIMI</u> .	(4)								
Date of Interview: <u>11/18/2009</u> .									
Type: a)⊠ Telephonic b)∏ Video Conference c)∏ Personal [copy given to: 1)∏ applicant 2)∏ applicant's representative]									
Exhibit shown or demonstration conducted: d) Yes e) No. If Yes, brief description:									
Claim(s) discussed: <u>Nov 18, 2009</u> .	Claim(s) discussed: <u>Nov 18, 2009</u> .								
Identification of prior art discussed:									
Agreement with respect to the claims f) was reached. g) was not reached. h) $\square$ N/A.									
Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: <u>Discussed 112 rejections. No agreement was reached. Examiner will wait until applicant submits amendments/arguments for review</u> .									
(A fuller description, if necessary, and a copy of the amend allowable, if available, must be attached. Also, where no c allowable is available, a summary thereof must be attached	opy of the amendments that v								
THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.									
/Hani M. Kazimi/ Primary Examiner, Art Unit 3691									
U.S. Patent and Trademark Office			1						

PTOL-413 (Rev. 04-03)

Interview Summary

#### Summary of Record of Interview Requirements

#### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview

#### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner \_
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
  - (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials

# Doc code: RCEX Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
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 Request for Continued Examination (RCE)
 Approved for use introugn 07/31/2012. Units 053-0031

 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	REQ	UEST FC		D EXAMINATIC	N(RCE)TRANSMITT -Web)	AL			
Application Number	10800295	Filing Date	2004-03-12	Docket Number (if applicable)	04-225	Art Unit	3696		
First Named Inventor	Scott F. Singer			Examiner Name	Chia-Yi Liu				
Request for C	This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV								
		S	UBMISSION REQ	UIRED UNDER 37	7 CFR 1.114				
in which they	Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).								
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Other									
				FEES					
The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.         Image: State of the Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 132490									
	SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED								
🗙 Patent	Practitioner Sigr	ature							
Applic	ant Signature								

#### Doc code: RCEX Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09) Request for Continued Examination (RCE) Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner							
Signature	/Thomas J. Loos/	Date (YYYY-MM-DD)	2009-11-19				
Name	Thomas J. Loos	Registration Number	60161				

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# **Privacy Act Statement**

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

#### PATENT IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 04-225)

)	
)	Group Art Unit: 3696
)	
)	Confirmation No.: 8245
)	
)	Examiner: Liu, Chia-Yi
)	
	) ) ) ) )

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## **RESPONSE FILED WITH REQUEST FOR CONTINUED EXAMINATION**

Dear Examiner:

Responsive to the Final Office Action mailed August 25, 2009 ("Office Action"), Applicants provide the following remarks filed with a Request for Continued Examination (RCE):

Listing of the Claims begins on page 2; Remarks begin on page 7 of this response.

#### Listing of claims

1-27. (Cancelled)

28. (Previously Presented) A method for displaying market information on a graphical user interface, the method comprising:

receiving by a computing device a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying by the computing device a long or short position taken by a user with respect to the tradeable object, wherein the long position is associated with a quantity of the tradeable object that has been bought by the user at a price, and wherein the short position is associated with a quantity of the tradeable object that has been sold by the user at a price;

computing by the computing device a plurality of values based on the long or short position, wherein each of the plurality of values represents a profit or loss if the long or short position is closed at a price level among a range of price levels for the tradeable object;

displaying via a the computing device the plurality of values along a value axis;

displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a particular price based on any of the following prices: current best bid, current best ask, and a last traded price, and wherein the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the particular price, wherein the second value represents a profit or loss incurred by the user if the position is closed at the update to the particular price.

29. (Previously Presented) The method of claim 28, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

30. (Previously Presented) The method of claim 29, further comprising:

in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

31. (Previously Presented) The method of claim 28, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

32. (Previously Presented) The method of claim 28, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

33. (Previously Presented) The method of claim 28, wherein each of the plurality of values comprises a number to indicate a profit or loss.

34. (Previously Presented) The method of claim 28, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

35. (Previously Presented) The method of claim 28, wherein the user represents a single trader.

36. (Previously Presented) The method of claim 28, further comprising receiving a repositioning command.

37. (Previously Presented) The method of claim 28, further comprising:

identifying a new long or short position taken by the user with respect to the tradeable object, wherein the new long or short position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new long or short position, wherein each of the second plurality of values represents a profit or loss if the new long or short position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

#### 38. (Previously Presented) The method of claim 28, further comprising:

displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second particular price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the position is closed at the second particular price, and wherein the second particular price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the position is closed at the update to the second price.

39. (Previously Presented) A computer readable medium having program code recorded thereon for execution on a computer, the program code causing a machine to perform the method comprising:

receiving a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying a long or short position taken by a user with respect to the tradeable object, wherein the long position is associated with a quantity of the tradeable object that has been bought by the user at a price, and wherein the short position is associated with a quantity of the tradeable object that has been sold by the user at a price;

computing a plurality of values based on the long or short position, wherein each of the plurality of values represents a profit or loss if the long or short position is closed at a price level among a range of price levels for the tradeable object;

displaying via a computing device the plurality of values along a value axis; displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a particular price based on any of the following prices: current best bid, current best ask, and a last traded price, and wherein the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the price, wherein the second value represents a profit or loss incurred by the user if the position is closed at the update to the particular price.

40. (Previously Presented) The computer readable medium of claim 39, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

41. (Previously Presented) The computer readable medium of claim 40, further comprising: in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

42. (Previously Presented) The computer readable medium of claim 39, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

43. (Previously Presented) The computer readable medium of claim 39, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

44. (Previously Presented) The computer readable medium of claim 39, wherein each of the plurality of values comprises a number to indicate a profit or loss.

45. (Previously Presented) The computer readable medium of claim 39, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

46. (Previously Presented) The computer readable medium of claim 39, wherein the user represents a single trader.

47. (Previously Presented) The computer readable medium of claim 39, further comprising receiving a re-positioning command.

48. (Previously Presented) The computer readable medium of claim 39, further comprising: identifying a new long or short position taken by the user with respect to the tradeable object, wherein the new long or short position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new long or short position, wherein each of the second plurality of values represents a profit or loss if the new long or short position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

49. (Previously Presented) The computer readable medium of claim 39, further comprising: displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second particular price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the position is closed at the second particular price, and wherein the second particular price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the position is closed at the update to the second price.

#### <u>Remarks</u>

#### I. <u>Status of the Claims</u>

Claims 28-49 are currently pending. No amendments have been made.

#### II. <u>Interview</u>

Applicants thank Examiners Liu and Kazimi for the courtesies extended during the telephone interview on November 18, 2009 with Applicants' representative, Monika Dudek. During the interview, Applicants' representative and Examiners discussed the rejections, and Examiners agreed to review the presently pending claims in view of the discussion and the arguments presented herein.

#### III. Interview Request Prior to Mailing of Office Action

If the Examiner chooses to mail an office action in response to Applicant's remarks herein, Applicant believes that an interview prior to mailing such an office action will help achieve a mutual understanding of the terminology recited in the claims and advance prosecution of the application. Applicant requests the Examiner to contact Applicant's representative, Monika Dudek, at 312-476-1118 to schedule a time convenient for the Examiner prior to the mailing of a future office action.

#### IV. Rejection under 35 U.S.C. §112, first paragraph

On page 2 of the Office Action, the Office rejected Claims 28-49 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. More specifically, the Office contends that Applicants' disclosure does not sufficiently describe a number of elements of the claims. This contention is respectfully traversed.

Applicants respectfully submit that when a disclosure describes a claimed invention in a manner that permits one skilled in the art to reasonably conclude that the inventor possessed the claimed invention, the written description requirement is satisfied. (MPEP §2163). This possession may be shown in any number of ways and an applicant need not describe every claim feature exactly because there is no <u>in haec verba</u> requirement. (MPEP §2163). Rather, to satisfy

the written description requirement, all that is required is "reasonable clarity." (MPEP §2163.02).

Applicants respectfully submit that one of ordinary skill in the art would reasonably conclude that Applicants' disclosure adequately describes the claimed invention at least based on the following reasons:

#### a. Identifying a Long or Short Position Taken by a User

Applicants respectfully submit that one of ordinary skill in the art would reasonable conclude that Applicants' disclosure provided at least in relation to the example on page 30 of Applicants' specification adequately describes the feature of "identifying a long or short position taken by a user (...)."

According to Claim 28, the "long position" is associated with "a quantity of the tradeable object that has been bought by the user at a price," and the "short position" is associated with "a quantity of the tradeable object that has been sold by the user at a price."

The example at page 30 of Applicants' specification is directed to using profit and loss, or P/L, as a derivative of price. As explained during the interview, a trader may buy a quantity of a product to create a "long position," and sell a quantity of a product to create a "short position." While Applicants' specification provides the example of generating profit or loss while buying one lot of a tradeable object, and then selling one lot of the tradeable object, Applicants respectfully submit that one of ordinary skill in the art would understand that the terms "long position" and "short position" are not limited to buying one lot and selling one lot.

#### b. Computing a Plurality of Values Based on the Position

The feature of "computing a plurality of values based on the long or short position, wherein each of the plurality of the plurality of values represents a profit or loss if the long or short position is closed at a price level," as claimed in Applicants' Claim 28, is described at page 30 of Applicants' specification as filed. More specifically, as described in the specification and explained during the interview, if a trader buys one lot of a particular tradeable object at "230," thus creating a net position of "+1," the value axis might include a value of "0" associated with the price of "230." In other words, the value of "0" indicates the gross profit to be acquired if one lot of the tradeable object was sold, i.e., "the long position was closed," at the associated

price, i.e., at the price of "230." Similarly, the value axis might include "+1" associated with "231," e.g., if one lot was sold at "231," "+2" associated with "232," e.g., if one lot was sold at "232," and "-1" associated with "229," e.g., if one lot was sold at "229, " and "-2" associated with "228," e.g., if one lot was sold at "228." Thus, Applicants respectfully submit that one of ordinary skill in the art would reasonably conclude that Applicants' disclosure adequately describes the aforementioned feature.

#### c. Displaying a First Indicator Corresponding to a First Value

As explained during the interview, the feature of displaying indicators along the value axis, such as the current best bid indicator or the current best ask indicator, is described in relation to multiple figures of Applicants' specification as filed. For example, Figure 8 illustrates the current best bid indicator "15" at the price of "230," and the current best ask indicator at the price of "232." (See also, page 30 of Applicants' specification as filed). As explained at page 30, in the embodiment where P/L values are mapped to a value axis, the value axis might include a value of "0" associated with the price of "230," as well as other values, as explained in the previous section. In such an embodiment, for example, if the current best bid is at the price of "230" corresponding to the value of "0" according to the provided example, a best bid indicator ("a first indicator") may be displayed at a "first location" corresponding to the "first value" along the "value axis." While the indicator is displayed in relation to the value axis, the value axis, the value corresponding to the location of the indicator represents "a profit or loss incurred by the user if the long or short position is closed at the particular price."

Accordingly, Applicants respectfully submit that the written description requirement is satisfied with respect to all features of the currently pending claims.

## V. <u>Rejection under 35 U.S.C. §112, second paragraph</u>

Claims 28-49 are rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants traverse the rejections.

Applicants respectfully submit that the essential question under 35 U.S.C. §112, second paragraph, is whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. Definiteness of claim language is analyzed, not

in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. (MPEP 2173.02).

As explained above and during the interview, Applicants respectfully submit that one of ordinary skill in the art would understand the meaning of a "short position," a "long position," and a "closed position." Thus, Applicants respectfully request reconsideration and removal of the rejections.

## VI. Conclusion

Applicant respectfully submits that pending Claims 28-49 are in condition for allowance. Applicants request favorable reconsideration. If Examiner believes that further dialog would expedite consideration of the application, Examiner is invited to contact Trading Technologies Patent Counsel Monika Dudek at 312-476-1118, or the undersigned attorney or agent.

By:

Respectfully submitted,

Date: November 19, 2009

/Thomas J. Loos/ Thomas J. Loos Reg. No. 60,161

Electronic Patent Application Fee Transmittal					
Application Number:	10	10800295			
Filing Date:	12	Mar-2004			
Title of Invention:		System and method for displaying order information in relation to a derivative of price			
First Named Inventor/Applicant Name:	Scott F. Singer				
Filer:	Thomas J. Loos				
Attorney Docket Number:	04-225				
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for continued examination	1801	1	810	810
Total in USD (\$)			810	

Electronic Acknowledgement Receipt				
EFS ID:	6490712			
Application Number:	10800295			
International Application Number:				
Confirmation Number:	8245			
Title of Invention:	System and method for displaying order information in relation to a derivative of price			
First Named Inventor/Applicant Name:	Scott F. Singer			
Customer Number:	39310			
Filer:	Thomas J. Loos			
Filer Authorized By:				
Attorney Docket Number:	04-225			
Receipt Date:	19-NOV-2009			
Filing Date:	12-MAR-2004			
Time Stamp:	17:53:31			
Application Type:	Utility under 35 USC 111(a)			

# Payment information:

Submitted with Payment	yes		
Payment Type	Deposit Account		
Payment was successfully received in RAM \$810			
RAM confirmation Number 4586			
Deposit Account 132490			
Authorized User			
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:			
Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)			
Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)			

Charge a	ny Additional Fees required under 37 C.F	.R. Section 1.21 (Miscellaneous fee	s and charges)			
File Listing	:					
Document Number	<b>Document Description</b>	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl	
1	Request for Continued Examination	04-225_RCE_111909.pdf	1046572	no	3	
	(RCE) 1 1		31ff1c3a1331119db58987c701c8b094712a c734			
Warnings:						
Information:						
2		04-225_response_with_RCE_11	123701	yes 10		
		1909.pdf	72b0ff0b90501f8d848457a7c0f1552bbe5e c662	ŕ		
Multipart Description/PDF files in .zip description						
	Document De	Start	End			
	Amendment Submitted/Entere	1		1		
	Claims	2	6			
	Applicant Arguments/Remarks	7	7 10			
Warnings:			11			
Information:						
3	Fee Worksheet (PTO-875)	fee-info.pdf	29589	no	2	
	. ,		464535ce69290bb0c62623b57d678a0c8d5 07fbe			
Warnings:				· · · · · ·		
Information:						
		Total Files Size (in bytes)	: 11:	99862		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application or Docket Number Filing Date PATENT APPLICATION FEE DETERMINATION RECORD 10/800.295 03/12/2004 To be Mailed Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN SMALL ENTITY SMALL ENTITY (Column 1) (Column 2) OR NUMBER FILED NUMBER EXTRA RATE (\$) FEE (\$) RATE (\$) FOR FEE (\$) BASIC FEE N/A N/A N/A N/A 37 CFR 1.16(a), (b), or (c)) SEARCH FEE N/A N/A N/A N/A 37 CFR 1.16(k), (i), or (m) EXAMINATION FEE N/A N/A N/A N/A 37 CFR 1.16(o), (p), or (g) TOTAL CLAIMS OR X \$ X \$ minus 20 = (37 CFR 1.16(i)) INDEPENDENT CLAIMS X \$ = X \$ = minus 3 = (37 CER 1 16(h)) If the specification and drawings exceed 100 sheets of paper, the application size fee due APPLICATION SIZE FEE is \$250 (\$125 for small entity) for each (37 CFR 1.16(s)) additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s) MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) \* If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL TOTAL APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY SMALL ENTITY OR (Column 1) (Column 2) (Column 3) CLAIMS REMAINING HIGHEST PRESENT ADDITIONAL NUMBER 11/19/2009 RATE (\$) RATE (\$) PREVIOUSLY FXTRA FEE (\$) FEE (\$) AFTER AMENDMENT AMENDMENT PAID FOR Total (37 CFR 22 Minus 0 0 OR \*\* 27 X \$26 = X \$ Independent \* 2 Minus \*\*\*3 = 0 X \$110 = 0 OR X \$ = Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) ΤΟΤΑΙ TOTAL ADD'L 0 OR ADD'L FEE FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST PRESENT ADDITIONAL ADDITIONAL REMAINING NUMBER RATE (\$) RATE (\$) PREVIOUSLY EXTRA FEE (\$) FEE (\$) AFTER AMENDMENT PAID FOR ENDMEN. Total (37 CFR Minus X \$ OR = X \$ = Independent \*\*\* Minus X \$ = OR Х\$ = Application Size Fee (37 CFR 1.16(s)) ₹ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) OR TOTAL TOTAL ADD'L OR ADD'L FEE FFF \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. Legal Instrument Examiner: \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". //REGINA D. BALTIMORE// \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS

ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



# UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	03/12/2004	Scott F. Singer	04-225	8245
	7590 08/25/200 NG TECHNOLOGIES		EXAM	UNER
300 SOUTH W SUITE 3200	ACKER DRIVE		LIU, CI	HIA-YI
CHICAGO, IL	60606		ART UNIT	PAPER NUMBER
			3696	
			NOTIFICATION DATE	DELIVERY MODE
			08/25/2009	ELECTRONIC

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mbhb.com williamsd@mbhb.com

		Application No.	Applicant(s)		
		10/800,295	SINGER ET AL.		
	Office Action Summary	Examiner	Art Unit		
		CHIA-YI LIU	3696		
Period fo	The MAILING DATE of this communication app r Reply	pears on the cover sheet with the o	correspondence address		
WHIC - Exter after - If NC - Failu Any I	A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. • Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. • If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. • Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).				
Status					
1)🖂	Responsive to communication(s) filed on 28 A	oril 2009.			
		action is non-final.			
3)	Since this application is in condition for allowar	nce except for formal matters, pr	osecution as to the merits is		
	closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.		
Dispositi	on of Claims				
4)🖂	Claim(s) 28-49 is/are pending in the application	n.			
	4a) Of the above claim(s) is/are withdrav				
5)	Claim(s) is/are allowed.				
6)🖂	Claim(s) <u>28-49</u> is/are rejected.				
7)	Claim(s) is/are objected to.				
8)	Claim(s) are subject to restriction and/o	r election requirement.			
Applicati	on Papers				
9)	The specification is objected to by the Examine	r.			
10)	The drawing(s) filed on is/are: a)∏ acc	epted or b) objected to by the	Examiner.		
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. Se	e 37 CFR 1.85(a).		
	Replacement drawing sheet(s) including the correct	ion is required if the drawing(s) is ob	pjected to. See 37 CFR 1.121(d).		
11)	The oath or declaration is objected to by the Ex	aminer. Note the attached Office	e Action or form PTO-152.		
Priority ι	Priority under 35 U.S.C. § 119				
	12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:				
/	1. Certified copies of the priority documents have been received.				
	2. Certified copies of the priority documents have been received in Application No				
	3. Copies of the certified copies of the priority documents have been received in this National Stage				
application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of the certified copies not received.					
Attachmen	t(s)				
	e of References Cited (PTO-892)	4) 🔲 Interview Summary Paper No(s)/Mail D			
	e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08)	5) Notice of Informal F			
	r No(s)/Mail Date	6) Other:			
U.S. Patent and T PTOL-326 (R		ction Summary Pa	art of Paper No./Mail Date 20090806		

Application/Control Number: 10/800,295 Art Unit: 3696

### DETAILED ACTION

This action is in response to an amendment submitted 4/28/2009. Applicant has amended Claims 28, 37-39 and 48-49. After careful consideration of Applicant's amendments and arguments, new grounds of rejections for Claims 28-49 have been established as set forth in detail below.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. No amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "identifying a long or short position taken by a user with respect to a tradable object, wherein a long position is associated with a quantity of the tradable object that has been bought by the user at a price, and wherein a short position is associated with a quantity of the tradable object that has been sold by the user at a price," "computing a plurality of values based on the long or short position, wherein each of the plurality of values represent a profit or loss if the long or short position is closed at a price level," and "the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular price." Applicant's originally filed

# Application/Control Number: 10/800,295 Art Unit: 3696

specification only teaches "profit and loss values that represent the gross profit acquired if a tradable object is <u>sold</u> at the associated price", see page 30, lines 8-15 of Applicant's specification, and mentions nothing about "displaying indicator that correspond to a value that represents profit or loss incurred by a user if a long or short position is <u>closed</u> at a particular price" or even anything about "taking long and short position". Many dependent claims also have limitations associated with "long and short position" which are not described in the original specification. Removal of all the new matters is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "short position" in claims 28-49 are used by the claim to mean "selling one lot of tradable object" (as explained by the applicant in the remark sent 4/28/2009, Page 9- (e)), while the accepted meaning of "short position" is "a market position in which the investor has sold a financial instrument that he or she <u>did not previously own</u>, with the expectation of a decrease in value." The terms are indefinite because the specification does not clearly redefine the term.

Claims 28-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. If is not clear what the applicant meant by "a profit or loss incurred by the user if the long or short position is <u>closed</u> at the particular price."

(Closed position means the position is no longer available. It is unclear how profit and losses result from not able to buy and sell stocks. If a position is closed, there should not be any profit or loss because a person is unable to buy and sell.) Appropriate correction is required.

#### **Response to Arguments**

Applicant argues that "when a trader sells one lot of a tradable object at a specific price", it means a short position is established and therefore all of applicant's added limitations regarding "long and short position" are not new matter. The Examiner disagrees. A short position means "the sale of a borrowed security, commodity or currency with the expectation that the asset will fail in value." For example, an investor who borrows shares of stock from a broker and sells them on the open market is said to have a short position in the stock. Even though applicant's specification teaches profits and loss, the specification does teach that the profit and loss is caused by taking "long and short positions" in stock and mentions nothing about "identifying a long or short position taken by a user with respect to a tradable object, wherein a long position is associated with a quantity of the tradable object that has been bought by the user at a price, and wherein a short position is associated with a quantity of the tradable object that has been sold by the user at a price," "computing a plurality of values based on the long or short position, wherein each of the plurality of values represent a profit or loss if the long or short position is closed at a price level," and "the first value represents a profit or loss incurred by the user if the long or short position is closed at the particular It appears from Applicant's Specification (see at least page 30) that the price." profit/loss of Applicant's invention is calculated by the difference between buying price and the selling price (when the object is later sold to others). The specification does not teach "selling financial instrument that the seller does not own at the time of sale" (short position) or "displaying indicator that present profit/loss if a long/short position is closed

(no longer availabl) at a particular price." Therefore, Applicant's argument is not persuasive.

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571)270-1573. The examiner can normally be reached on Mon-Thur alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TOM DIXON can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/THOMAS A DIXON/ Supervisory Patent Examiner, Art Unit 3696 CHIA-YI LIU Examiner Art Unit 3696

#### PATENT IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 04-225)

In re Application of:	)
Scott F. Singer et al.	) Group Art Unit: 3696
	)
Serial No.: 10/800,295	) Confirmation No.: 8245
	)
Filed: March 12, 2004	) Examiner: Liu, Chia-Yi
	)

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### RESPONSE OF THE OFFICE ACTION MAILED FEBRUARY 9, 2009

Dear Examiner:

Responsive to the Office Action mailed February 9, 2009 ("Office Action"), Applicants provide the following amendments and remarks:

Claims begin on page 2 and

Remarks begin on page 7 of this response.

#### Listing of claims

1-27. (Cancelled)

28. (Currently Amended) A method for displaying market information on a graphical user interface, the method comprising:

receiving <u>by a computing device</u> a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying by the computing device a long or short position taken by a user with respect to the tradeable object, wherein the <u>a long</u> position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price, and wherein a short position is associated with a quantity of the tradeable object that has been sold by the user at a price;

computing <u>by the computing device</u> a plurality of values based on the <u>long or short</u> position, wherein each of the plurality of values represents a profit or loss if the <u>long or short</u> position is closed at a price level among a range of price levels for the tradeable object;

displaying via a the computing device the plurality of values along a value axis;

displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a <u>particular</u> price based on any of the following prices: current best bid, current best ask, and <del>the</del> <u>a</u> last traded price, and wherein the first value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the <u>particular</u> price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the <u>particular</u> price, wherein the second value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the update to the <u>particular</u> price.

29. (Previously Presented) The method of claim 28, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

30. (Previously Presented) The method of claim 29, further comprising:

2

in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

31. (Previously Presented) The method of claim 28, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

32. (Previously Presented) The method of claim 28, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

33. (Previously Presented) The method of claim 28, wherein each of the plurality of values comprises a number to indicate a profit or loss.

34. (Previously Presented) The method of claim 28, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

35. (Previously Presented) The method of claim 28, wherein the user represents a single trader.

36. (Previously Presented) The method of claim 28, further comprising receiving a repositioning command.

37. (Currently Amended) The method of claim 28, further comprising:

identifying a new <u>long or short</u> position taken by the user with respect to the tradeable object, wherein the new <u>long or short</u> position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new <u>long or short</u> position, wherein each of the second plurality of values represents a profit or loss if the new <u>long or short</u> position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

38. (Currently Amended) The method of claim 28, further comprising:

displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second <u>particular</u> price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the second <u>particular</u> price, and wherein the second <u>particular</u> price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the update to the second price.

39. (Currently Amended) A computer readable medium having program code recorded thereon for execution on a computer, the program code causing a machine to perform the method comprising:

receiving a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying a <u>long or short</u> position taken by a user with respect to the tradeable object, wherein the <u>a long</u> position is associated with a quantity of the tradeable object that has been bought <del>or sold</del> by the user at a price, <u>and wherein a short position is associated with a quantity of</u> the tradeable object that has been sold by the user at a price;

computing a plurality of values based on the <u>long or short</u> position, wherein each of the plurality of values represents a profit or loss if the <u>long or short</u> position is closed at a price level among a range of price levels for the tradeable object;

displaying via a computing device the plurality of values along a value axis; displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a <u>particular</u> price based on any of the following prices: current best bid, current best ask, and the <u>a</u> last traded price, and wherein the first value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the <u>particular</u> price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the price, wherein the second value represents a profit or loss incurred by the user if the <u>long or short position</u> is closed at the update to the <u>particular</u> price.

40. (Previously Presented) The computer readable medium of claim 39, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

41. (Previously Presented) The computer readable medium of claim 40, further comprising: in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

42. (Previously Presented) The computer readable medium of claim 39, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

43. (Previously Presented) The computer readable medium of claim 39, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

44. (Previously Presented) The computer readable medium of claim 39, wherein each of the plurality of values comprises a number to indicate a profit or loss.

45. (Previously Presented) The computer readable medium of claim 39, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

46. (Previously Presented) The computer readable medium of claim 39, wherein the user represents a single trader.

47. (Previously Presented) The computer readable medium of claim 39, further comprising receiving a re-positioning command.

48. (Currently Amended) The computer readable medium of claim 39, further comprising: identifying a new <u>long or short</u> position taken by the user with respect to the tradeable object, wherein the new <u>long or short</u> position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new <u>long or short</u> position, wherein each of the second plurality of values represents a profit or loss if the new <u>long or short</u> position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

49. (Currently Amended) The computer readable medium of claim 39, further comprising: displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second <u>particular</u> price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the second <u>particular</u> price, and wherein the second <u>particular</u> price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the <u>long or short</u> position is closed at the update to the second price.

#### <u>Remarks</u>

#### I. <u>Status of the Claims</u>

Claims 28-49 are currently pending. In the interest of expediting prosecution and per the Office's guidelines with respect to *In re Bilski*, Applicants have amended independent Claim 28 to more clearly recite that the claims are tied to another statutory class. In addition, Applicants respectfully submit that the claims transform underlying subject matter. Additionally, Applicants have amended Claims 28, 37-39, and 48-49 to further clarify the claimed embodiment.

Support for the amendments can be found throughout the application and therefore no new matter is added in this response.

#### II. Rejection under 35 U.S.C. §112, first paragraph

On page 2 of the Office Action, the Office rejected Claims 28-49 under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. More specifically, the Office contends that Applicants' disclosure does not sufficiently describe a number of elements of the claims. This contention is respectfully traversed. Additionally, Applicants respectfully submit that the currently pending claims were amended, as shown above, to further clarify the claimed embodiment.

Applicants respectfully submit that when a disclosure describes a claimed invention in a manner that permits one skilled in the art to reasonably conclude that the inventor possessed the claimed invention, the written description requirement is satisfied. (MPEP §2163). This possession may be shown in any number of ways and an applicant need not describe every claim feature exactly because there is no <u>in haec verba</u> requirement. (MPEP §2163). Rather, to satisfy the written description requirement, all that is required is "reasonable clarity." (MPEP §2163.02).

Applicants respectfully submit that one of ordinary skill in the art would reasonably conclude that Applicants' disclosure adequately described the claimed invention at the time of filing at least based on the following.

#### a. Identifying a Position by a User

The feature of "identifying a position by a user …" is described at page 30 of Applicants' specification as filed. Applicants respectfully note that Claim 28 was amended to further clarify the claimed invention, as shown above, and currently recites "identifying … a long or short position." According to amended Claim 28, the "long position" is associated with "a quantity of the tradeable object that has been bought by the user at a price," and the "short position" is associated with "a quantity of the tradeable object that has been sold by the user at a price."

The example at page 30 of Applicants' specification is directed to P/L being a derivative of price. According to the provided example, a trader has bought one lot of a particular tradeable object at the price of "230." Applicants respectfully submit that one of ordinary skill in the art would understand that buying one lot of a tradeable object creates a long position that is "taken by a user with respect to the tradeable object," as recited by Applicants' Claim 1, and "wherein the position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price," i.e., according to the provided example, one lot of the tradeable object was bought at the price of "230."

#### b. Computing a Plurality of Values Based on the Position

The feature of "computing a plurality of values based on the long or short position, wherein each of the plurality of the plurality of values represents a profit or loss if the long or short position is closed at a price level," per amended Claim 28, is also described at page 30 of Applicants' specification as filed. More specifically, as described in the specification, if a trader has bought one lot of a particular tradeable object at "230," thus creating a net position of "+1," the value axis might include a value of "0" associated with the price of "230." In other words, the value of "0" indicates the gross profit to be acquired if one lot of the tradeable object was sold, i.e., "the long position was closed," at the associated price, i.e., at the price of "230." Similarly, the value axis might include "+1" associated with "231," e.g., if one lot was sold at "231," "+2" associated with "232," e.g., if one lot was sold at "228," e.g., if one lot was

#### c. Displaying a First Indicator Corresponding to a First Value

The feature of displaying indicators along the value axis, such as the current best bid indicator or the current best ask indicator, is described in relation to multiple figures of Applicants' specification as filed. For example, Figure 8 illustrates the current best bid indicator "15" at the price of "230," and the current best ask indicator at the price of "232." (See also, page 30 of Applicants' specification as filed). As explained at page 30, in the embodiment where P/L values are mapped to a value axis, the value axis might include a value of "0" associated with the price of "230," as well as other values, as explained in the previous section.

#### d. Moving the First Indicator Relative to the Value Axis

The feature of moving indicators relative to the value axis is described in relation to Figure 2 of Applicants' specification as filed. (See, also, page 3 of Applicants' specification). Additional description of the screen can be found in U.S. Patent Application No. 09/590,692 (now U.S. Patent No. 6,772,132) and U.S. Patent Application No. 09/589,751 (now, U.S. Patent No. 6,938,011), both of which were incorporated by reference in Applicants' specification. (See, e.g., Applicants' specification page 7).

#### e. <u>Position</u>

The Office asserts that page 27 is the only place in Applicants' specification that mentions a "position." Furthermore, the "position" described on page 27 is related to a position of a cursor on a screen. Thus, the Office asserts that "a position associated with a quantity of the tradeable object that has been bought or sold by the user at a price" is the new matter. Applicants amended the currently pending claims to more clearly recite the claimed invention. Applicants respectfully traverse the rejection and submit that one of ordinary skill in the art would understand that when a trader buys one lot of a tradeable object, as explained on page 30 of Applicants' specification as filed, as well as the preceding sections, a long position of "+1" is established. Similarly, when a trader sells one lot of the tradeable object at a specific price, a short position of "-1" is established. Thus, Applicants respectfully submit that the disclosure describes the claimed invention in a manner that permits one skilled in the art to reasonably conclude that the inventor possessed the claimed invention at the time of filing of the application.

Accordingly, Applicants respectfully submit that the written description requirement is satisfied with respect to all features of the currently pending claims.

#### III. Rejection under 35 U.S.C. §112, second paragraph

Claims 28-49 are rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants respectfully submit that the essential question under 35 U.S.C. §112, second paragraph, is whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. Definiteness of claim language is analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. (MPEP 2173.02).

The Office asserts that "if a position has already been taken [in association with a quantity of the tradeable object] and it is associated with something that has already been bought or sold at a price by the user, it is unclear what the Applicant meant by the position is closed at a price level." Applicants respectfully traverse the rejection and refer the Office to the discussion of creating and closing long and short positions taken by a user in the preceding section. Additionally, Applicants respectfully submit that the claimed embodiment is even clearer based on the current amendment. Applicants respectfully submit that one of ordinary skill in the art of trading would understand that a trader can create a long or short position by buying or selling a quantity of a tradeable object, and that the trader can close the created position by selling or buying the same quantity, respectively. Thus, Applicants respectfully request reconsideration.

#### VI. Conclusion

Applicant respectfully submits that pending Claims 28-49 are in condition for allowance. Applicants request favorable reconsideration. If Examiner believes that further dialog would expedite consideration of the application, Examiner is invited to contact Trading Technologies Patent Counsel Monika Dudek at 312-476-1118, or the undersigned attorney or agent.

By:

Respectfully submitted,

Date: <u>April 28, 2009</u>

/Thomas J. Loos/ Thomas J. Loos Reg. No. 60,161

Electronic Acl	knowledgement Receipt
EFS ID:	5231372
Application Number:	10800295
International Application Number:	
Confirmation Number:	8245
Title of Invention:	System and method for displaying order information in relation to a derivative of price
First Named Inventor/Applicant Name:	Scott F. Singer
Customer Number:	39310
Filer:	Thomas J. Loos
Filer Authorized By:	
Attorney Docket Number:	04-225
Receipt Date:	28-APR-2009
Filing Date:	12-MAR-2004
Time Stamp:	11:39:13
Application Type:	Utility under 35 USC 111(a)

# Payment information:

Submitted with	n Payment	no	no							
File Listing	:									
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)					
1		04-225_NFOAR_022909_as_file d.pdf	111593 b64b8506579d71385985473310a7736031 c3dea0	yes	11					

	Multipart Description/PDF files in .z	ip description	
	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	11
Warnings:	1		
Information:			
	Total Files Size (in bytes):	11	1593

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application or Docket Number Filing Date PATENT APPLICATION FEE DETERMINATION RECORD 10/800.295 03/12/2004 To be Mailed Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN SMALL ENTITY SMALL ENTITY (Column 1) (Column 2) OR NUMBER FILED NUMBER EXTRA RATE (\$) FEE (\$) RATE (\$) FOR FEE (\$) BASIC FEE N/A N/A N/A N/A 37 CFR 1.16(a), (b), or (c)) SEARCH FEE N/A N/A N/A N/A 37 CFR 1.16(k), (i), or (m) EXAMINATION FEE N/A N/A N/A N/A 37 CFR 1.16(o), (p), or (g) TOTAL CLAIMS OR X \$ X \$ minus 20 = (37 CFR 1.16(i)) INDEPENDENT CLAIMS X \$ = X \$ = minus 3 = (37 CER 1 16(h)) If the specification and drawings exceed 100 sheets of paper, the application size fee due APPLICATION SIZE FEE is \$250 (\$125 for small entity) for each (37 CFR 1.16(s)) additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s) MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) \* If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL TOTAL APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY SMALL ENTITY OR (Column 1) (Column 2) (Column 3) CLAIMS REMAINING HIGHEST PRESENT ADDITIONAL NUMBER 04/28/2009 RATE (\$) RATE (\$) PREVIOUSLY FXTRA FEE (\$) FFF (\$) AFTER AMENDMENT AMENDMENT PAID FOR Total (37 CFR 22 Minus 0 0 OR \*\* 27 X \$26 = X \$ Independent \* 2 Minus \*\*\*3 = 0 X \$110 = 0 OR X \$ = Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) ΤΟΤΑΙ TOTAL ADD'L 0 OR ADD'L FEE FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST PRESENT ADDITIONAL ADDITIONAL REMAINING NUMBER RATE (\$) RATE (\$) PREVIOUSLY EXTRA FEE (\$) FEE (\$) AFTER AMENDMENT PAID FOR ENDMEN. Total (37 CFR Minus X \$ OR = X \$ = Independent \*\*\* Minus X \$ = OR Х\$ = Application Size Fee (37 CFR 1.16(s)) ₹ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) OR TOTAL TOTAL ADD'L OR ADD'L FEE FEE \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. Legal Instrument Examiner: \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". /phyllis canty/ \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.** 

nmissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

	<u>'ed States Patent a</u>	AND TRADEMARK OFFICE	UNITED STATES DEPAR United States Patent and Address: COMMISSIONER F P.O. Box 1450 Alexandria, Virginia 22: www.uspto.gov	FOR PATENTS
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	03/12/2004	Scott F. Singer	04-225	8245
MBHB/TRAD	7590 02/09/2009 ING TECHNOLOGIES /ACKER DRIVE		EXAM LIU, CH	
SUITE 3200 CHICAGO, IL	60606		ART UNIT	PAPER NUMBER
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			MAIL DATE	DELIVERY MODE
			02/09/2009	PAPER

### Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/800,295	SINGER ET AL.
Office Action Summary	Examiner	Art Unit
	CHIA-YI LIU	3696
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet wi	th the correspondence address
A SHORTENED STATUTORY PERIOD FOR REPI WHICHEVER IS LONGER, FROM THE MAILING I - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNIC .136(a). In no event, however, may a r d will apply and will expire SIX (6) MON te, cause the application to become AB	CATION. eply be timely filed THS from the mailing date of this communication. ANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on <u>10/</u>	29/2008.	
	is action is non-final.	
3) Since this application is in condition for allow		ers, prosecution as to the merits is
closed in accordance with the practice under	•	
Disposition of Claims		
	on	
<ul> <li>4) Claim(s) <u>28-49</u> is/are pending in the applicati</li> <li>4a) Of the above claim(s) is/are withdra</li> </ul>		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>28-49</u> is/are rejected.		
7) Claim(s) is/are objected to.	lan alaatian naguinamant	
8) Claim(s) are subject to restriction and/	or election requirement.	
Application Papers		
9) The specification is objected to by the Examir	ner.	
10) The drawing(s) filed on is/are: a) ac		by the Examiner.
Applicant may not request that any objection to the	· · · ·	-
Replacement drawing sheet(s) including the corre		
11) The oath or declaration is objected to by the E	· · · · · · · · · · · · · · · · · · ·	
Priority under 35 U.S.C. § 119		
	in priority under 25 U.S.O.S	(110(a) (d) at (f))
12) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of:	in phonity under 35 0.5.6. §	····σ(α)-(U) ΟΓ(Ι).
	ata hava haan raasiyad	
1. Certified copies of the priority documer		polication No.
2. Certified copies of the priority documer		
<ol> <li>Copies of the certified copies of the pri application from the International Burea</li> </ol>	•	received in this National Stage
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* See the attached detailed Office action for a lis	st of the certified copies not	
Attachment(s)		
1) Notice of References Cited (PTO-892)		Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)		s)/Mail Date nformal Patent Application
Paper No(s)/Mail Date <u>10/29/2008</u> .	6) 🗌 Other:	
U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06) Office J	Action Summary	Part of Paper No./Mail Date 20081216

#### DETAILED ACTION

This action is in response to a RCE submitted 10/29/2008. Applicant has canceled Claims 1-27 and added new Claims 28-49. After careful considerations, Claims 28-49 has been rejected as set forth in detail below.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-49 are rejected under 35 U.S.C. 112, first paragraph, as failing

to comply with the written description requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the

time the application was filed, had possession of the claimed invention. No

amendment shall introduce new matter into the disclosure of the invention. The

added material which is not supported by the original disclosure is as follows:

"identifying a position taken by a user with respect to the tradeable object,

wherein the position is associated with a quantity of the tradeable object that has

been bought or sold bye the user at a price," "computing a plurality of values

based on the position, wherein each of the plurality of values represents a profit

or loss if the position is closed at a price level," "displaying a first indicator

corresponding to a first value... wherein the first value represents a profit or loss

incurred by the user if the position is closed at the price," and "moving the first

indicator .....wherein second value represents a profit or loss incurred by the user

if the position is closed at the update to the price." (The Examiner notes that the only place "position" was mentioned in Applicant's Specification is on Page 27, lines 11-12 and it's talking about position of a cursor and has nothing to do with "a position associated with a quantity of the tradeable object that has been bought or sold by the user at a price.") Applicant is required to cancel the new matter in the reply to this Office Action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, independent claim 28 states "identify a position taken by a user... wherein the position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price," and "plurality of values represents a profit or loss if the position is closed at a price level." If a position has already been taken and it is associated with something that has already been bought or sold at a price by the user, it is unclear what the Applicant meant by the position is "closed" at a price level? Appropriate correction is required.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571)270-1573. The examiner can normally be reached on Mon-Thur alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TOM DIXON can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tollfree). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/THOMAS A DIXON/ Supervisory Patent Examiner, Art Unit 3696 CHIA-YI LIU Examiner Art Unit 3696

				A	oplication/0	trol N	0.	Applicant(s)/Patent Under Reexamination								
Inde	ex of C	Claim	IS	10	800295				SINGE	SINGER ET AL.						
				E	kaminer				Art Un	Art Unit 3609						
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PTO/SB/08a (09-08) Approved for use through 10/31/2008. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Doc description: Information Disclosure Statement (IDS) Filed

	Application Number		10800295
	Filing Date		2004-03-12
INFORMATION DISCLOSURE	First Named Inventor	Scott	F. Singer
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3692
	Examiner Name	Chia-'	Yi Liu
	Attorney Docket Numb	er	04-225

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# Application Number 10800295 Filing Date 2004-03-12 First Named Inventor Scott F. Singer Art Unit 3692 Examiner Name Chia-Yi Liu Attorney Docket Number 04-225

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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)								
Application Number	10800295	Filing Date	2004-03-12	Docket Number (if applicable)	04-225	Art Unit	3692	
First Named Inventor	Scott F. Singer			Examiner Name	Chia-Yi Liu	•	•	
This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV								
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Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).								
Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.								
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Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)								
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The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.         Image: State of the Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 132490								
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED								
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Signature of Registered U.S. Patent Practitioner						
Signature	/Thomas J. Loos/	Date (YYYY-MM-DD)	2008-10-29			
Name	Thomas J. Loos	Registration Number	60161			

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (MBHB No. 04-225)

Appl. No.	:	10/800,295
Applicant	:	Scott F. Singer
Filed	:	03/12/2004
TC/A.U.	:	3692
Examiner	:	Chia-Yi Liu

Confirmation No. 8245

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### RESPONSE TO THE FINAL OFFICE ACTION MAILED APRIL 29, 2008

Dear Examiner,

In response to the Final Office Action of April 29, 2008, Applicant submits the following:

Amendments to the Claims begins on page 2; and Remarks begin on page 7 of this paper.

#### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims**

1.-27. (Cancelled)

28. (New) A method for displaying market information on a graphical user interface, the method comprising:

receiving a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying a position taken by a user with respect to the tradeable object, wherein the position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price;

computing a plurality of values based on the position, wherein each of the plurality of values represents a profit or loss if the position is closed at a price level among a range of price levels for the tradeable object;

displaying via a computing device the plurality of values along a value axis;

displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a price based on any of the following prices: current best bid, current best ask, and the last traded price, and wherein the first value represents a profit or loss incurred by the user if the position is closed at the price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the price, wherein the second value represents a profit or loss incurred by the user if the position is closed at the update to the price.

29. (New) The method of claim 28, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

30. (New) The method of claim 29, further comprising:

in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

31. (New) The method of claim 28, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

32. (New) The method of claim 28, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

33. (New) The method of claim 28, wherein each of the plurality of values comprises a number to indicate a profit or loss.

34. (New) The method of claim 28, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

35. (New) The method of claim 28, wherein the user represents a single trader.

36. (New) The method of claim 28, further comprising receiving a re-positioning command.

37. (New) The method of claim 28, further comprising:

identifying a new position taken by the user with respect to the tradeable object, wherein the new position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new position, wherein each of the second plurality of values represents a profit or loss if the new position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

38. (New) The method of claim 28, further comprising:

displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the position is closed at the second price, and wherein the second price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the position is closed at the update to the second price.

39. (New) A computer readable medium having program code recorded thereon for execution on a computer, the program code causing a machine to perform the method comprising:

receiving a current highest bid price and a current lowest ask price for a tradeable object from an electronic exchange;

identifying a position taken by a user with respect to the tradeable object, wherein the position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price;

computing a plurality of values based on the position, wherein each of the plurality of values represents a profit or loss if the position is closed at a price level among a range of price levels for the tradeable object;

displaying via a computing device the plurality of values along a value axis;

displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, wherein the first indicator represents a price based on any of the following prices: current best bid, current best ask, and the last traded price, and wherein the first value represents a profit or loss incurred by the user if the position is closed at the price; and

moving the first indicator relative to the value axis to a second location corresponding to a second value along the value axis responsive to receipt of an update to the price, wherein the second value represents a profit or loss incurred by the user if the position is closed at the update to the price.

40. (New) The computer readable medium of claim 39, further comprising an order entry region in alignment with the value axis, the order entry region comprising a plurality of locations for receiving commands to send orders, each location corresponding to a value along the value axis.

41. (New) The computer readable medium of claim 40, further comprising: in response to a selection of a location of the order entry region by a single action of a user input device, setting an order price based on the selected location.

42. (New) The computer readable medium of claim 39, further comprising displaying the range of price levels along the value axis, wherein each price level of the range of price levels corresponds to a different value along the value axis.

43. (New) The computer readable medium of claim 39, further comprising graphically indicating on the value axis whether a particular value of the plurality of values represents a profit or a loss.

44. (New) The computer readable medium of claim 39, wherein each of the plurality of values comprises a number to indicate a profit or loss.

45. (New) The computer readable medium of claim 39, wherein each of the plurality of values comprises a plus or minus sign to indicate a profit or loss.

46. (New) The computer readable medium of claim 39, wherein the user represents a single trader.

47. (New) The computer readable medium of claim 39, further comprising receiving a re-positioning command.

48. (New) The computer readable medium of claim 39, further comprising:

identifying a new position taken by the user with respect to the tradeable object, wherein the new position is associated with a second quantity of the tradeable object that has been bought or sold by the user at a second price;

computing a second plurality of values based on the new position, wherein each of the second plurality of values represents a profit or loss if the new position is closed at a price level among the range of price levels; and

displaying via a computing device the second plurality of values along a value axis.

49. (New) The computer readable medium of claim 39, further comprising:

displaying via the computing device a second indicator at a third location corresponding to a third value along the value axis, wherein the second indicator represents a second price based on any of the following prices: current best bid, current best ask, and the last traded price, wherein the third value represents a profit or loss incurred by the user if the position is closed at the second price, and wherein the second price of the second indicator is different than the price of the first indicator; and

moving the second indicator relative to the value axis to a fourth location corresponding to a fourth value along the value axis responsive to receipt of an update to the second price, wherein the fourth value represents a profit or loss incurred by the user if the position is closed at the update to the second price.

#### **REMARKS**

Applicant thanks Examiner Chia-Yi Liu for the thorough examination in the Final Office Action mailed on April 29, 2008, which rejected pending claims 1-5 and 7-27. Particularly, claims 1-5, 7-14 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (US 2003/0004852 A1) in view of Kemp, II et al. (US 2002/0099644 A1), and further in view of Official Notice. Claims 15-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Official Notice.

First, Applicant cancels claims 1-27 without prejudice and submits new claims 28-49. Support for the subject matter of the new claims can be found throughout the specification including page 30. As such, no new matter was added in making this amendment.

None of the art of record discloses or suggests at least the following features of new independent claims 28 and 39 (portions of the claimed features are underlined below for emphasis, but of course, the claim is to be read as a whole):

- identifying a position taken by a user with respect to the tradeable object, wherein the position is associated with a quantity of the tradeable object that has been bought or sold by the user at a price;
- computing <u>a plurality of values based on the position</u>, wherein each of the plurality of values represents a profit or loss if the position is closed at a price level among a range of price levels for the tradeable object;
- displaying via a computing device the plurality of values along a value axis;
- displaying via the computing device a first indicator at a first location corresponding to a first value along the value axis, <u>wherein the first indicator</u> represents a price based on any of the following prices: current best bid, current best ask, and the last traded price, and wherein the first value represents a profit or loss incurred by the user if the position is closed at the price; and
- <u>moving the first indicator relative to the value axis</u> to a second location corresponding to a second value along the value axis responsive to receipt of an update to the price, <u>wherein the second value represents a profit or loss incurred</u> by the user if the position is closed at the update to the price.

Second, the current rejections are moot in view of the present amendment.

Third, in view of the present amendment, Applicant believes that it is not necessary to address the Examiner's various statements and/or rejections made in the Final Office Action at

this time. However, Applicant reserves the right to address any statements and/or rejections made in the Final Office Action, including the Official Notice, or any previous action for that matter in a future correspondence, if the need so arises.

Applicant respectfully submits that the rejections are obviated and that the pending claims are in a condition for allowance. Favorable reconsideration and withdrawal of the rejections are respectfully requested. The Examiner is invited contact Trading Technologies inhouse Patent Counsel Mark Triplett at 312-476-1151 if it would expedite prosecution.

Respectfully submitted,

Dated: October 29, 2008

By: <u>/Thomas J. Loos/</u> Thomas J. Loos Reg. No. 60,161

8

Electronic Patent Application Fee Transmittal						
Application Number:	10	10800295				
Filing Date:	12	-Mar-2004				
Title of Invention:	System and method for displaying order information in relation to a derivative of price					
First Named Inventor/Applicant Name:	Scott F. Singer					
Filer:	Thomas J. Loos					
Attorney Docket Number: 04-225						
Filed as Large Entity						
Utility under 35 USC 111(a) Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
Post-Allowance-and-Post-Issuance:						
Extension-of-Time:						
Extension - 3 months with \$0 paid		1253	1	1110	1110	

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Request for continued examination	1801	1	810	810
	Tot	al in USD	(\$)	1920

Electronic Acknowledgement Receipt					
EFS ID:	4195507				
Application Number:	10800295				
International Application Number:					
Confirmation Number:	8245				
Title of Invention:	System and method for displaying order information in relation to a derivative of price				
First Named Inventor/Applicant Name:	Scott F. Singer				
Customer Number:	39310				
Filer:	Thomas J. Loos				
Filer Authorized By:					
Attorney Docket Number:	04-225				
Receipt Date:	29-OCT-2008				
Filing Date:	12-MAR-2004				
Time Stamp:	12:40:13				

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Payment Type	Deposit Account			
Payment was successfully received in RAM	\$1920			
RAM confirmation Number	7145			
Deposit Account 132490				
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Warnings:			11		
Information:					
2	Information Disclosure Statement (IDS)	04-225_IDS_102908.pdf	749440	no	4
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### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/22 (10-08) Approved for use through 10/31/2008. OMB 0651-0031 Tendomark Office: U.S. DEPARMENT OF COMMERCE U.S. Patent an

PETITION FOR EXTENSION OF TIME UNDER	37 CER 1 136(a)	Docket Number (Option	onal)	
FETTION FOR EXTENSION OF TIME UNDER FY 2009				
F 1 2009 (Fees pursuant to the Consolidated Appropriations Act,	, 2005 (H.R. 4818).)	04-225		
Application Number 10/800,295	Filed March 12, 2	004		
<sup>For</sup> Scott F. Singer				
Art Unit 3692		Examiner Chia-Yi	Liu	
This is a request under the provisions of 37 CFR 1.13 application.	86(a) to extend the pe	riod for filing a reply in t	he above identified	
The requested extension and fee are as follows (cheo	k time period desired	and enter the appropri	ate fee below):	
	Fee	Small Entity Fee		
One month (37 CFR 1.17(a)(1))	\$130	\$65	\$	
Two months (37 CFR 1.17(a)(2))	\$490	\$245	\$	
✓ Three months (37 CFR 1.17(a)(3))	\$1110	\$555	\$ <u>1110</u>	
Four months (37 CFR 1.17(a)(4))	\$1730	\$865	\$	
Five months (37 CFR 1.17(a)(5))	\$2350	\$1175	\$	
Applicant claims small entity status. See 37 CFR	1.27.			
A check in the amount of the fee is enclosed	1.			
Payment by credit card. Form PTO-2038 is a	attached.			
─ ☐ The Director has already been authorized to	charge fees in this	application to a Dep	osit Account.	
The Director is hereby authorized to charge Deposit Account Number 13-2490	any fees which may	y be required, or crea	lit any overpayment,	
WARNING: Information on this form may become p Provide credit card information and authorization o		mation should not be in	cluded on this form.	
l am the applicant/inventor.				
assignee of record of the entire Statement under 37 CFR 3				
✓ attorney or agent of record. R	egistration Number	60,161		
attorney or agent under 37 CF Registration number if acting und				
/Thomas J. Loos/		October 29,	2008	
Signature			Date	
		312-913-333	8	
Thomas J. Loos		Telephone Number		
Thomas J. Loos Typed or printed name		Telep	hone Number	
	ntire interest or their represe			

USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.** 

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# **Privacy Act Statement**

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Doc code :IDS

PTO/SB/08a (09-08) Approved for use through 10/31/2008. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Doc description: Information Disclosure Statement (IDS) Filed

	Application Number		10800295	
	Filing Date		2004-03-12	
INFORMATION DISCLOSURE	First Named Inventor	Scott	F. Singer	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3692	
	Examiner Name Chia-		ia-Yi Liu	
	Attorney Docket Numb	er	04-225	

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# INFORMATION DISCLOSURE Application Number 10800295 Filing Date 2004-03-12 First Named Inventor Scott F. Singer Art Unit 3692 Examiner Name Chia-Yi Liu Attorney Docket Number 04-225

1	I					
If you wish to add additional non-patent literature document citation information please click the Add button Add						
EXAMINER SIGNATURE						
Examiner S	Signati	ure		Date Considered		
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						
<sup>1</sup> See Kind Codes of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if						

<sup>a</sup> Kind of document by the appropriate symbols as indi English language translation is attached.

	Application Number		10800295	
	Filing Date		2004-03-12	
INFORMATION DISCLOSURE	First Named Inventor	Scott	F. Singer	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		3692	
	Examiner Name	Chia-'	Yi Liu	
	Attorney Docket Number		04-225	

### **CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s)	):
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That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

### OR

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

X None

### SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Thomas J. Loos/	Date (YYYY-MM-DD)	2008-10-29
Name/Print	Thomas J. Loos	Registration Number	60161

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.** 

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- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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  - 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	TED STATES PATENT	UNITED STATES DEPARTMENT OF COMMERC United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov			
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/800,295	03/12/2004	Scott F. Singer	04-225	8245	
MBHB/TRAD	7590 04/29/2008 ING TECHNOLOGIES	EXAM			
SUITE 3200	ACKER DRIVE		,		
CHICAGO, IL	60606		ART UNIT	PAPER NUMBER	
			3692		
			MAIL DATE	DELIVERY MODE	
			04/29/2008	PAPER	

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)							
	10/800,295	SINGER ET AL.							
Office Action Summary	Examiner	Art Unit							
	CHIA-YI LIU	3692							
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address							
<ul> <li>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.</li> <li>Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.</li> <li>Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>									
Status									
1) Responsive to communication(s) filed on <u>12 M</u>	arch 2004.								
	action is non-final.								
3) Since this application is in condition for allowar	nce except for formal matters, pro	osecution as to the merits is							
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.							
Disposition of Claims									
4)⊠ Claim(s) <u>1-5 and 7-27</u> is/are pending in the app	olication.								
4a) Of the above claim(s) is/are withdraw									
5) Claim(s) is/are allowed.									
6)⊠ Claim(s) <u>1-5 and 7-27</u> is/are rejected.									
7) Claim(s) is/are objected to.									
8) Claim(s) are subject to restriction and/or	r election requirement.								
Application Papers									
9) The specification is objected to by the Examine	r.								
10) The drawing(s) filed on is/are: a) acc	epted or b) objected to by the	Examiner.							
Applicant may not request that any objection to the	drawing(s) be held in abeyance. Se	e 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correct	ion is required if the drawing(s) is ob	jected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Ex	aminer. Note the attached Office	e Action or form PTO-152.							
Priority under 35 U.S.C. § 119									
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a	)-(d) or (f).							
a) <mark></mark> All b) Some * c) None of:									
1. Certified copies of the priority documents									
2. Certified copies of the priority documents									
3. Copies of the certified copies of the prior	•	ed in this National Stage							
application from the International Bureau									
* See the attached detailed Office action for a list of the certified copies not received.									
Attachment(s)									
1) X Notice of References Cited (PTO-892)       4) Interview Summary (PTO-413)         2) Notice of Draftsperson's Patent Drawing Review (PTO-948)       Paper No(s)/Mail Date									
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO/SB/08)</li> </ul>	5) Notice of Informal F								
Paper No(s)/Mail Date <u>2/6/2008</u> .	6) 🗌 Other:								
U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06) Office Ac	etion Summary Pa	art of Paper No./Mail Date 20080414							

# DETAILED ACTION

1. Claims 1-5 and 7-27 are presented for examination. Applicant filed an

amendment on 2/6/2008 canceling claim 6, amending claims 1-3, 5, 7-12, and 15. New

grounds of rejection of claims 1-5 and 7-27 necessitated by Applicant's amendment are

established in the instant office action as set forth in detail below.

# Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-14, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Burns (US 2003/0004852 A1) in view of Kemp, II et al. (US 2002/0099644 A1), and

further in view of Official Notice.

As per Claim 1

Burns ('852) discloses,

establishing a static value axis (statically displaying prices, see Abstract of Burns, lines 7-10) that comprises a plurality of net change value levels (column 840, spread price levels) wherein the plurality of net change value levels are based on the net change value (spread price), see paragraph 0087, lines 8-9 and Fig 8.

dynamically displaying a first indicator (marker moves with the best bid price) in one of a plurality of locations in a bid display region, see paragraph 0063, lines 10-14 and Fig 5 (510, 511)

Page 3

dynamically displaying a second indicator (marker moves with the best offer price) in one of a plurality of locations in an ask display region, see paragraph 0063, lines 10-14 and Fig 5 (512)

the first indicator (Fig 5 (510, 511)) representing quantity associated with at least one order (100 orders) to buy the tradable object at the highest bid price (9220) currently available in the market, see Fig 5.

the second indicator (Fig 5 (512)) representing quantity associated with at least one order (15 orders) to sell the tradable object at the lowest ask (offer) price (9221) currently available in the market, see Fig 5.

each location in the bid display region (Fig 8 (column 820)) corresponding to a net change value level (spread price) along the static value axis (statically displaying prices, see Abstract of Burns, lines 7-10), see paragraph 0078, lines 1-6 and Fig 8.

each location in the ask display region (Fig 8 (column 830)) corresponding to a net change value level (spread price) along the static value axis (statically displaying prices, see Abstract of Burns, lines 7-10), see paragraph 0078, lines 1-2, 6-8 and Fig 8.

displaying an order entry region comprising a plurality of locations (bids and asks area) for receiving commands to send trade orders (allowing the placement of trade), see paragraph 0009, lines 17-21.

displaying the bid and ask display regions in relation to the plurality of net change value levels (spread) positioned along the static value axis, see Fig 8 and paragraph 0079, lines 1-8, and when the inside market changes, at least one of the first and second indicators moves in the bid or ask display regions relative to the static value axis (the markets track or move with the best bid/offer prices), see paragraph 0063, lines 11-14 and Fig 5 (510, 512).

selecting a particular location of the order entry region by a single action of a user input device and allowing placement of trade order, each location of the order entry region corresponding to a net change value level along the static value axis, see paragraph 0009, lines 17-21. (Display of bids and asks = region corresponding to net change value level, see Fig 8 and paragraph 0078, lines 1-6)

Burns ('852) teaches a net change value (spread price) determined based on the highest bid price (best bid), see paragraph 0086, lines 5-6, and displaying an indicator corresponding with a desired price level, see paragraph 0007, lines 10-

11, but fails to explicitly disclose the first indicator is displayed in a first location that corresponds to a net change value. Official Notice is taken that placing an indicator at a desired location is old and well known in the art. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the first indicator is displayed in a first location that corresponds to a net change value determined based on the highest bid price. One would be motivated to do so, for the benefit of pointing customers to useful information, thereby allowing customers to make decisions quicker.

Burns ('852) teaches a net change value (spread price) determined based on the lowest ask price (best offer), see paragraph 0086, lines 5-6, and displaying an indicator corresponding with a desired price level, see paragraph 0007, lines 10-11, but fails to explicitly disclose the second indicator is displayed in a second location that corresponds to a net change value. Official Notice is taken that placing an indicator at a desired location is old and well known in the art. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include wherein the second indicator is displayed in a second location that corresponds to a net change value determined based on the lowest ask price. One would be motivated to do so, for the benefit of pointing customers to useful information, thereby allowing customers to make decisions quicker.

Burns ('852) teaches computing a net change value (spread) based on a first value (best offer) and a second value (best bid), wherein the net change value represents a difference between the first and second values (9861-9223), see paragraph 0086, lines 5-6 and Fig 7, but fails to explicitly disclose basing the first value at a first time and basing the second value at a second time. Official Notice is taken that it is old and well known to calculate net change value using values obtained at different time. Also, since best offer and best bid don't always occur at the same time, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include disclose basing the first value at a first time and basing the second time. One would be motivated to do so, for the benefit of not limiting customer to only small range information.

Burns ('852) teaches selecting a particular location of the order entry region by a single action of a user input device and allowing placement of trade order, see paragraph 0009, lines 17-21, but fails to explicitly disclose 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 tradable object and sending the trade order to the electronic exchange. Kemp ('644) discloses in response to a selection of a particular location of the order entry region by a single action of the order entry region by a single action of the order entry region by a single action of a user input device, see paragraph 0015, lines

5-6, 14, setting (preset) a plurality of parameters for a trade order relating to the tradable object (see paragraph 0015, lines 20-23) and sending the trade order to the electronic exchange, see Abstract of Kemp, lines 2-3. Both Burns and Kemp are directed toward electronic trading tool with display of price and bid/ask quantity. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include 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 tradable object and sending the trade order to the electronic exchange. One would be motivated to do so for the benefit of allowing customer to set the contents of the trade order according to his/her own need, and providing the customer with improved efficiency and versatility in placing trade orders.

# As per Claim 2

Burns ('852) further discloses displaying a numerical, graphical, or numerical and graphical representation of the plurality of net change value levels (spread) along the static value axis, see Fig 8. (Numerical representation = 645, 644, 643 ...etc.)

# As per Claim 3

Burns ('852) further discloses each of the plurality of net change value levels is based on a common relationship for a different price, see paragraph 0086, lines 5-6. (Common relationship = best bid—best offer.)

# As per Claim 4

Burns ('852) teaches facilitating spread trading using a graphical user interface, see paragraph0009, lines 1-3, but fails to explicitly disclose input the common relationship through a graphical user interface. Official Notice is taken that it is old and well known in the art to input common relationship through a graphical user interface. For example, input a mathematical equation on a Microsoft spreadsheet. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include input the common relationship through a graphical user interface. One would be motivated to do so for the benefit of providing trader with improved efficiency in viewing price spread.

# As per Claim 5

Burns ('852) further discloses the common relationship comprises Net change = (Value(s) at Current Point) - (Value(s) at Reference Point), see paragraph 0043, lines 2-4. (Current point = settlement price, reference = theoretical price)

# Claim 7

Burns ('852) teaches the plurality of net change value levels (price spread) are updated (automatically recalculated), see paragraph 0085, lines 1-4, but fails to explicitly disclose the plurality of net change value levels are updated at predetermined intervals. Official Notice is taken that it is old and well known to update data at predetermined intervals. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the plurality of net change value levels are updated at predetermined intervals. One would be motivated to do so for the benefit of allowing the customer to know ahead of time when the change value levels will be updated.

# As per Claim 8

Burns ('852) teaches the plurality of net change value levels (price spread) are updated (automatically recalculated), see paragraph 0085, lines 1-4, but fails to explicitly disclose displaying a region for receiving a command to update the plurality of net change value levels, wherein the plurality of net change value are updated in response to a selection of the region with a user input device. Official Notice is taken that it is old and well known to update data in response to a selection of region with a user input device. For example, use computer mouse (user input device) to click "Fresh" button (selected location) on Internet Explorer to update a page. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include displaying a region for receiving a command to update the plurality of net change value levels, wherein the plurality of net change value are updated in response to a selection of the region with a user input device. One would be motivated to do so, for the purpose of allowing the customer update the net change value easily when they want to see new information.

# As per Claim 9

Burns ('852) further discloses the plurality of net change value levels (spread) are updated in response to detecting a programmed event (detecting a market change), see paragraph 0085, lines 1-4.

As per Claim 10

Burns ('852) teaches displaying a plurality of bid and offer indicators in association with the plurality of net change value levels, wherein each of the bid indicators represents a quantity available to buy the tradable object and each of the offer indicators represents a quantity available to sell the tradable object, see Fig 8 and paragraph 0079, lines 1-8. (Also, see Claim 1 of Burns above regarding the use of indicators is old and well known)

# As per Claim 11

Burns ('852) fails to explicitly disclose consolidating the plurality of net change value levels on the static value axis such that groups of two or more values are combined into consolidated value levels and consolidating the display of the plurality of bid and offer indicators into a plurality of consolidated bid and offer indicators so that each consolidated bid and offer indicator represents quantity associated with the two or more values within a consolidated value level. Kemp ('644) discloses consolidating numbers in order to condense the display, see paragraph 0018. Both Burns and Kemp are directed toward electronic trading tool with display of price and bid/ask quantity. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include consolidating the plurality of net change value levels on the static value axis such that groups of two or more values are combined into consolidated value levels and consolidating the display of the plurality of bid and offer indicators into a plurality of consolidated bid and offer indicators so that each consolidated bid and offer indicator represents quantity associated with the two or more values within a consolidated value level. One would be motivated to do so for the benefit of allowing a customer to view a greater range of data and a greater number of orders in the market at any given time and reducing the risk of a favorable order scrolling from the screen prior to hitting a bid or ask on that order.

# As per Claim 12

Burns ('852) further discloses displaying a second set of values (Fig 8 (820)) along the static value axis, wherein each of the second set of values corresponds to each of the plurality of net change value levels (Fig 8 (810)) on the static value axis, see Fig 8 and paragraph 0079, lines 1-6.

# As per Claim 13

Burns ('852) fails to explicitly disclose each of the second set of values represents a price. Official Notice is taken that is it old and well known to display related values next to a set of values. In Burns' invention, the prices used to calculate the spread (see Fig 7, FGBL/FGBM prices) would be useful information that the trader might want to know. Therefore, the Examiner asserts that it would

> have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include disclose each of the second set of values represents a price. One would be motivated to do so for the benefit of allowing the traders to know how the price spread was calculated before making decisions.

As per Claim 14

Burns ('852) fails to explicitly disclose each of the second set of values represents a different derivative of a price. Official Notice is taken that is it old and well known to display related values next to a set of values. In Burns' invention, the prices used to calculate the spread (see Fig 7, FGBL/FGBM prices) are derivatives of the spread price and would be useful information that the trader might want to know. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include disclose each of the second set of values represents a price. One would be motivated to do so for the benefit of allowing the traders to know how the price spread was calculated before making decisions.

4. Claims 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Burns (US 2003/0004852 A1) in view of Official Notice.

As per Claim 15

Burns ('852) discloses,

dynamically displaying a first indicator (marker moves with the best bid price) in a location in a bid display region, see paragraph 0063, lines 10-14 and Fig 5 (510, 511)

the location in the bid display region corresponding to one of the plurality of price derivative values (price spread), see paragraph 0078, lines 1-6 and Fig 8.

the first indicator (Fig 5 (510, 511)) representing quantity associated with at least one order (100 orders) to buy the tradable object at the highest bid price (9220) currently available in the market, see Fig 5.

the second indicator (Fig 5 (512)) representing quantity associated with at least one order (15 orders) to sell the tradable object at the lowest ask (offer) price (9221) currently available in the market, , see Fig 5.

the first/second indicators move relative to the plurality of price derivative values (price spread, see Fig 8) when the highest bid price/lowest offer price changes (the markets track or move with the best bid/offer prices), see paragraph 0063, lines 11-14 and Fig 5 (510, 512) and paragraph 0078, lines 1-2, 6-8 and Fig 8

dynamically displaying a second indicator (marker moves with the best offer price) in an ask display region, see paragraph 0063, lines 10-14 and Fig 5 (512)

the location in the ask display region (Fig 8 (column 830)) corresponding to one of the plurality of price derivative values (spread price), see paragraph 0078, lines 1-2, 6-8 and Fig 8.

Burns ('852) teaches calculating a plurality of price derivative values (price spread) wherein each of the plurality of price derivative values represents a change (9861-9223), between a first number (best offer) and at a second number (best bid), see paragraph 0086, lines 5-6 and Fig 7, but fails to explicitly disclose basing the first value at a first point in time and basing the second value at a second point time. Official Notice is taken that it is old and well known to calculate net change value using values obtained at different time. Also, since best offer and best bid don't always occur at the same time, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include each of the plurality of price derivative values represents a change between a first number at a first point in time and at a second number at a second point in time. One would be motivated to do so, for the benefit of not limiting customer to only small range information.

Burns ('852) teaches a price derivative value (spread price) determined based on the highest bid price (best bid), see paragraph 0086, lines 5-6, and displaying an indicator corresponding with a desired price level, see paragraph 0007, lines 10-11, but fails to explicitly disclose the first indicator is displayed in a first location that corresponds to a price derivative value. Official Notice is taken that placing an indicator at a desired location is old and well known in the art. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the first indicator is displayed in a first location that corresponds to a price derivative value determined based on the highest bid price. One would be motivated to do so, for the benefit of pointing customers to useful information, thereby allowing customers to make decisions quicker.

Burns ('852) teaches a derivative of price (spread price) determined based on the lowest ask price (best offer), see paragraph 0086, lines 5-6, and displaying an indicator corresponding with a desired price level, see paragraph 0007, lines 10-

11, but fails to explicitly disclose the second indicator is displayed in a second location that corresponds to a derivative of price. Official Notice is taken that placing an indicator at a desired location is old and well known in the art. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include wherein the second indicator is displayed in a second location that corresponds to a price derivative value determined based on the lowest offer price. One would be motivated to do so, for the benefit of pointing customers to useful information, thereby allowing customers to make decisions quicker.

# As per Claim 16

Burns ('852) teaches the first number represents a particular value of interest (best offer), see paragraph 0086, lines 5-6 and Fig 7, but fails to explicitly disclose the first point in time represents a designated time of interest. Official Notice is taken that it is old and well known to obtain values at a designated time of interest. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the first point in time represents a designated time of interest. One would be motivated to do so, for the benefit of allowing customers the option to view market information obtained at the time he chooses.

# As per Claim 17

Burns ('852) further discloses the first number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value, see paragraph 0043, lines 2-4. (Settlement price/last traded price)

# As per Claim 18

Burns ('852) teaches a user input device, see paragraph 0009, lines 17-21, but fails to explicitly disclose the particular value of interest is input through a graphical user interface. Official Notice is taken that it is old and well known to input value through a graphical user interface. (For example, input numbers through computer). Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the particular value of interest is input through a graphical user interface. One would be motivated to do so for the benefit of speeding up the trading process by input information through graphical device.

As per Claim 19

Burns ('852) teaches the second number represents a particular value of interest (best bid), see paragraph 0086, lines 5-6 and Fig 7, but fails to explicitly disclose the first point in time represents a designated time of interest. Official Notice is taken that it is old and well known to obtain values at a designated time of interest. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the second number represents a second particular value of interest. One would be motivated to do so, for the benefit of allowing customers the option to view market information obtained at the time he chooses.

# As per Claim 20

Burns ('852) further discloses the second number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value, see paragraph 0043, lines 2-4. (Settlement price/last traded price)

# As per Claim 21

Burns ('852) teaches a user input device, see paragraph 0009, lines 17-21, but fails to explicitly disclose the second value of interest is input through a graphical user interface. Official Notice is taken that it is old and well known to input value through a graphical user interface. (For example, input numbers through computer). Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include the second particular value of interest is input through a graphical user interface. One would be motivated to do so for the benefit of speeding up the trading process by input information through graphical device.

# As per Claim 22

Burns ('852) further discloses the plurality of price derivative values (price spread) in the bid and ask (offer) display regions are positioned along a static value axis (statically displaying prices), see Abstract of Burns, lines 7-10, and Fig 8, 9.

# As per Claim 23

Burns ('852) further discloses the bid and ask display regions are displayed in relation to fixed derivative of price values (spread) positioned along the static value axis (statically displaying prices), see Abstract of Burns, lines 7-10, and Fig 8, 9, and when the inside market changes, the derivative of price values along the static value 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 static value axis, see paragraph 0063, lines 10-14.

# As per Claim 24

Burns ('852) fails to explicitly disclose receiving a recentering command to approximately center the first and second indicators in the bid and ask display regions. Kemp ('644) discloses receiving a re-center command to re-center the market on the trader's screen. Official Notice was taken that it is old and well known to center indicators in the desired regions. Both Burns and Kemp are directed toward electronic trading tool with display of price and bid/ask quantity. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include receiving a recentering command to approximately center the first and second indicators in the bid and ask display regions. One would be motivated to do so for the benefit of providing trader with improved efficiency in viewing bid and ask data.

# As per 25

Burns ('852) further discloses displaying an order entry region comprising a plurality of locations (bids and asks area) for receiving commands to send trade orders (allowing the placement of trade), see paragraph 0009, lines 17-21, and each location corresponding to a derivative of price value (spread price) along the static value axis (statically displaying prices, see Abstract of Burns, lines 7-10), see paragraph 0078, lines 1-6 and Fig 8.

Burns ('852) teaches selecting a particular location of the order entry region by a single action of a user input device and allowing placement of trade order, see paragraph 0009, lines 17-21, but fails to explicitly disclose 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 tradable object and sending the trade order to the electronic exchange. Kemp ('644) discloses in response to a selection of a particular location of the order entry region by a single action of a user input device, see paragraph 0015, lines 5-6, 14, setting (preset) a plurality of parameters for a trade order relating to the tradable object (see paragraph 0015, lines 20-23) and sending the trade order to the electronic exchange, see Abstract of Kemp, lines 2-3. Both Burns and Kemp are directed toward electronic trading tool with display of price and bid/ask quantity. Therefore, the Examiner asserts that it would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify Burns' invention to include 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 tradable object and sending the

trade order to the electronic exchange. One would be motivated to do so for the benefit of allowing customer to set the contents of the trade order according to his/her own need, and providing the customer with improved efficiency and versatility in placing trade orders.

As per Claim 26.

Burns ('852) further discloses the plurality of price derivative values (price spread) are represented by numbers, see Fig 8 (810).

As per Claim 27

Burns ('852) further discloses the plurality of price derivative values spread) are represented graphically (graphic user interface), see paragraph 0025, lines 1-3 and Fig 8.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571)270-1573. The examiner can normally be reached on Mon-Thur alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMBIZ ABDI can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> CHIA-YI LIU Examiner Art Unit 3692

/Susanna M. Diaz/ Primary Examiner, Art Unit 3692

Notice of References Cited	Application/Control No. 10/800,295	Applicant(s)/Patent Under Reexamination SINGER ET AL.	
	Examiner	Art Unit	
	CHIA-YI LIU	3692	Page 1 of 1

### **U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	А	US-2003/0004852 A1	01-2003	Burns, Mike	705/37
*	В	US-2002/0099644 A1	07-2002	Kemp et al.	705/37
	С	US-			
	D	US-			
	Е	US-			
	F	US-			
	G	US-			
	н	US-			
	Ι	US-			
	J	US-			
	к	US-			
	L	US-			
	М	US-			

# FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Index of Claims			10800295 Examiner LIU, CHIA-YI	Examiner LIU, CHIA-YI			Applicant(s)/Patent Under Reexamination SINGER ET AL. Art Unit 3609			
	Rejected		Cancelled Restricted	N 	Non-Ele		A 0	Appeal Objected		
Claims	renumbered	in the same or	der as presented by a	pplicant		СРА	□ T.D.	🗌 R.1.47		
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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	10800295	SINGER ET AL.
	Examiner	Art Unit
	LIU, CHIA-YI	3609

SEARCHED								
Class Subclass Date Examiner								
705		8/23/2007	C.L.					
705		4/24/2008	C.L.					

SEARCH NOTES							
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East Search	8/23/2007	C.L.					
East Search	4/24/2008	C.L.					

INTERFERENCE SEARCH						
Class	Subclass	Date	Examiner			

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# **BIB DATA SHEET**

# **CONFIRMATION NO. 8245**

	RIAL NUMBER         FILING or 37           10/800,295         03/12/2004		E 1004		<b>CLASS</b> 705	GR	GROUP ART UNIT 3692		ATTORNEY DOCKET NO. 04-225	
RULE         APPLICANTS         Scott F. Singer, Lake Bluff, IL;         Michael J. Burns, Chicago, IL;         Fred Monroe, Silver Springs, MD;         ** CONTINUING DATA **********************************										
** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 05/28/2004 Foreign Priority claimed Yes INO 35 USC 119(a-d) conditions met Yes INO Verified and /CHIA YI LIU/ Acknowledged Examiner's Signature Initials ILICENSE GRANTED ** ** SMALL ENTITY ** STATE OR COUNTRY IL 10 27 2										
ADDRESS MBHB/TRADING TECHNOLOGIES 300 SOUTH WACKER DRIVE SUITE 3200 CHICAGO, IL 60606 UNITED STATES										
TITLE System a	and met	hod for displa	ying order	inforn	nation in relation	to a c	lerivative	of price		
System and method for displaying order information in relation to a derivative of price         FILING FEE         RECEIVED         448    FEES: Authority has been given in Paper          No						ing Ext. of time)				
							Other      Credit			

# EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1432	((net near2 change) or (price near2 change)) with value	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/23 13:49
82	1297	bid same ask same price	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/23 13:55
83	193	S1 and S2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2008/04/23 13:55	
S4	50	change with ((highest or best) near2 bid near2 price)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/24 18:25
S5	11613834	"7"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/24 19:08
S6	3	"7177833"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/04/24 19:08
S7	2	("7177833").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/24 19:09

S	8	2	("7110974").PN.	US-PGPUB;	OR	OFF	2008/04/24
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PTO/SB/08A (01-08) Approved for use through 02/29/2008. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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### Substitute for form 1449/PTO

Sheet 1

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Cor	nplete if Known
Application Number	10/800295
Filing Date	March 12, 2004
First Named Inventor	Scott F. Singer
Art Unit	3609
Examiner Name	Chia-Yi Liu
 Attorney Docket Number	04-225

of 2

			U. S. PATEN	r documents	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code <sup>2 (il known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
7J.L./		<sup>US-</sup> 7,212,999	May 1, 2007	Friesen et al.	
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Examiner Signature	/Chia-yi Liu/	Date Considered	04/25/2008
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <u>www.usplo.gov</u> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449B/PTO						Complete if Known				
						Application Number 10/800,295				
INF	FOF	rma'	TION DISC	CLOS	URE	Filing Date March 12, 2004				
STATEMENT BY APPLICANT					ANT	First Named Inventor	Scott F. Singer			
						Art Unit	3609			
(Use as many sheets as necessary)				essary)		Examiner Name	Chia-Yi Liu			
Sheet	2			of	2	Attorney Docket Number	04-225	$\supset$		
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	<u> </u>	number(s), publisher, city and/or country where published.	
/J.L./		Co-Pending U.S. Patent Application Serial No. 11/415,884 filed 5/2/2006	
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Examiner	/Chia-yi Liu/	Date	04/25/2008
Signature		Considered	

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# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (Case No. 04-225)

Appl. No.	:	10/800,295
Applicant	:	Scott F. Singer
Filed	:	3/12/2004
TC/A.U.	:	3609
Examiner	:	Chia-Yi Liu

Confirmation No. 8245

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# RESPONSE TO THE OFFICE ACTION MAILED SEPTEMBER 26, 2007

Dear Examiner,

In response to the Office Action of September 26, 2007, Applicant submits the following:

**Claims** begin on page 2; and **Remarks** begin on page 9.

#### LISTING OF CLAIMS

1. (Currently amended) A method for displaying market information relating to a tradeable object being traded at an electronic exchange having an inside market with a highest bid price and a lowest offer price, the method comprising:

computing a net change value based on a first value at a first time and a second value at a second time, wherein the net change value represents a difference between the first and second values;

establishing a static value axis that comprises a plurality of net change value levels, wherein the plurality of net change value levels are based on the net change value;

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 <u>net change</u> <u>value level along the static value axis</u> derivative of price value along a static value axis, the first indicator representing quantity associated with at least one order to buy the tradeable object at the highest bid price currently available in the market, wherein the <u>first indicator is displayed in a first location that corresponds to a net change value</u> determined based on the highest bid price;

dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a <u>net</u> change value level along the static value axis derivative of price value along a static value axis, the second indicator representing quantity associated with at least one order to sell the commodity tradeable object at the lowest ask price currently available in the market, wherein the second indicator is displayed in a second location that corresponds to a net change value determined based on the lowest ask price;

displaying the bid and ask display regions in relation to <u>the plurality of net change</u> <u>value levels</u> fixed derivative of price values positioned along the static value axis such

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that when the inside market changes, the derivative of price values along the static value axis do not move and then at least one of the first and second indicators moves in the bid or ask display regions relative to the static value axis;

displaying an order entry region comprising a plurality of locations for receiving commands to send trade orders, each location <u>of the order entry region</u> corresponding to a <u>net change value level along the static value axis</u> <del>derivative of price value along a static value axis</del>; and

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

2. (Currently amended) The method of claim 1 further comprising displaying a numerical, graphical, or numerical and graphical representation of the <u>plurality of net</u> <u>change value levels along the static value axis</u> <del>derivative of price values along the common value axis</del>.

3. (Currently amended) The method of claim 1 wherein each of the <u>plurality of net</u> <u>change value levels is based on a common relationship for a different price</u> <del>derivative of</del> <u>price values are based through a common relationship on a different price</u>.

4. (Original) The method of claim 3 wherein the common relationship is input through a graphical user interface.

5. (Currently amended) The method of claim 3 wherein the derivative of price values comprise a net change and the common relationship comprises *Net change* = (*Value*(s) at *Current Point*) - (*Value*(s) at *Reference Point*).

# 6. (Canceled)

7. (Currently amended) The method of claim 1 wherein the <u>plurality of net change</u> value levels derivative of price values are updated at predetermined intervals.

8. (Currently amended) The method of claim 1 further comprising displaying a region for receiving a command to update the <u>plurality of net change value levels</u> derivative of price values, wherein the <u>plurality of net change value levels</u> derivative of price values are updated in response to a selection of the region with a user input device.

9. (Currently amended) The method of claim 1 wherein the <u>plurality of net change</u> <u>value levels</u> derivative of price values are updated in response to detecting a programmed event.

10. (Currently amended) The method of claim 1 further comprising displaying a plurality of bid and offer indicators in association with the <u>plurality of net change value</u> <u>levels</u> derivative of price values, wherein each of the bid indicators represents a quantity available to buy the tradeable object and each of the offer indicators represents a quantity available to sell the tradeable object.

11. (Currently amended) The method of claim 10 further comprising:

consolidating the <u>plurality of net change value levels</u> derivative of price values on the static value axis such that groups of two or more values are combined into consolidated value levels; and

consolidating the display of the plurality of bid and offer indicators into a plurality of consolidated bid and offer indicators so that each consolidated bid and offer indicator

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represents quantity associated with the two or more values within a consolidated value level.

12. (Currently amended) The method of claim 1 further comprising displaying a second set of values along the static value axis, wherein each of the second set of values corresponds to each of the <u>plurality of net change value levels</u> <del>derivative of price values</del> on the <u>static</u> value axis.

13. (Original) The method of claim 12 wherein each of the second set of values represents a price.

14. (Original) The method of claim 12 wherein each of the second set of values represents a different derivative of a price.

15. (Currently amended) A method for displaying market information relating to a tradeable object being traded at an electronic exchange having an inside market with a highest bid price and a lowest offer price, the method comprising:

calculating a plurality of price derivative values, wherein each of the plurality of price derivative values represents a change between a first number at a first point in time and at a second number at a second point in time;

dynamically displaying a first indicator in a location in a bid display region, the location in the bid display region corresponding to one of the plurality of price derivative values, the first indicator representing quantity associated with at least one order to buy the tradeable object at the highest bid price currently available in the market, wherein the first indicator is displayed in a first location that corresponds to a price derivative value determined based on the highest bid price, and wherein the first indicator moves

relative to the plurality of price derivative values when the highest bid price changes; and

dynamically displaying a second indicator in a location in an ask display region, the location in the ask display region corresponding to one of the plurality of price derivative values, the second indicator representing quantity associated with at least one order to sell the tradeable object at the lowest [[ask]] <u>offer</u> price currently available in the market, wherein the second indicator is displayed in a second location that <u>corresponds to a price derivative value determined based on the lowest offer price, and</u> <u>wherein the second indicator moves relative to the plurality of price derivative values</u> <u>when the lowest offer price changes</u>.

16. (Original) The method of claim 15 wherein the first number represents a particular value of interest and the first point in time represents a designated time of interest.

17. (Original) The method of claim 16 wherein the first number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value.

18. (Original) The method of claim 16 wherein the particular value of interest is input through a graphical user interface.

19. (Original) The method of claim 15 wherein the second number represents a second particular value of interest and the second point in time represents a second designated time of interest.

20. (Original) The method of claim 19 wherein the second number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value.

21. (Original) The method of claim 19 wherein the second particular value of interest is input through a graphical user interface.

22. (Original) The method of claim 15 wherein the plurality of price derivative values in the bid and ask display regions are positioned along a static value axis.

23. (Original) The method of claim 22 wherein the bid and ask display regions are displayed in relation to fixed derivative of price values positioned along the static value axis such that when the inside market changes, the derivative of price values along the static value 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 static value axis.

24. (Original) The method of claim 22 further comprising receiving a recentering command to approximately center the first and second indicators in the bid and ask display regions.

25. (Original) The method of claim 22 further comprising displaying an order entry region comprising a plurality of locations for receiving commands to send trade orders, each location corresponding to a derivative of price value along the static value axis, and in response to a selection of a particular location of the order entry region by a single action of a user input device, setting a plurality of parameters for a trade order relating to the tradeable object and sending the trade order to the electronic exchange.

26. (Original) The method of claim 15 wherein the plurality of price derivative values are represented by numbers.

27. (Original) The method of claim 15 wherein the plurality of price derivative values are represented graphically.

# **REMARKS**

## I. <u>Status of the Claims</u>

First, Applicant thanks the Examiner for the thorough examination. Claims 1-5 and 7-27 are currently pending in the application. In the Office Action mailed September 26, 2007, all claims 1-27 were rejected. Claims 1-2, 7, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kemp (US 2002/0099644). Claims 3-6, 12-15, 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp in view of Kane (US 6,317,728). Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp in view of Barclay (US 6,850,555). Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp in view of Kane and further in view of Wolfberg (US 4,885,685). While Applicant respectfully traverses these rejections for at least the reasons stated below, Applicant has amended claims 1-3, 5, 7-12, and 15 to focus on a particular embodiment and to expedite the prosecution of this case to an allowance. No new matter was added. Dependent claim 6 is cancelled without prejudice.

## II. <u>Claim Rejections</u>

#### Independent claims 1 and 15

Claim 1 is amended to include establishing "...a static value axis that comprises a plurality of net change value levels, wherein the plurality of net change value levels are based on the net change value...." The "net change value" is computed based on a "...first value at a first time and a second value at a second time...." Then, indicators representing the highest bid price and the lowest ask price currently available in the market are displayed in relation to this "static value axis." A trade order is sent using this particular display.

Before the amendment, the Office contended that Kemp discloses each and every feature of claim 1. However, Applicant will not address this specific contention at this time, and reserves the right to do so in the future, but will rather focus on the amended features of claim 1 that the Office states are missing from Kemp. Particularly, with respect to Applicant's dependent claim 5, which was rejected under 35 U.S.C. 103, the Office stated that Kemp does not disclose the net change features that are now

similarly called for in Applicant's amended claim 1. The Office turned to Kane (US 6,317,728) in making that rejection as disclosing a delta value (see Kane's Fig. 19), and contended that Kemp and Kane together disclose the claimed invention. Applicant respectfully traverses this contention.

The Kane reference, and in particular Kane's Fig. 19, discloses the use of a single delta value for the IBM market. So, for example, according to Kane's Fig. 19, a row is dedicated to displaying things like the best bid price, the best ask price, the high, the low, volume, delta, bid size, and ask size for the IBM market. Kane does not disclose establishing a static value axis that comprises "a plurality of net change value levels" against which current bid and offer indicators are displayed, such as called for in Applicant's claim 1. Additionally, Kemp does not disclose or suggest displaying bid and offer indicators in relation to a static axis comprising the specific net change derivation called for in Applicant's amended claim 1. Particularly, amended claim 1 calls for "computing a net change value" and "establishing a static value axis" that comprises a plurality of net change value levels, which are "based on the net change value." As such, Applicant respectfully submits that not only would the combination not result in Applicant's claimed invention, but it would not be obvious to modify Kemp based on Kane to arrive at Applicant's presently claimed invention.

Amended independent claim 15 does not include a static value axis like Applicant's independent claim 1, but calls for "calculating a plurality of price derivative values, wherein each of the plurality of price derivative values represents a change between a first number at a first point in time and at a second number at a second point in time" and displaying a first and second indicator relative to these "price derivative values." Particularly, claim 15 recites, "...wherein the first indicator moves relative to the plurality of price derivative values when the highest bid price changes...; and ... wherein the second indicator moves relative to the plurality of price derivative values when the lowest ask price changes." As such, claim 15 distinguishes over the cited art for at least the reason that Kemp/Kane does not disclose or teach the computation of a "plurality of price derivative values" like those called for in claim 15, in addition to displaying the first and second indicators in relation to these price derivative values.

# Dependent claims 2-5, 7-14, and 16-27

Dependent claims 2-5, 7-14, and 16-27 are also rejected. Applicant traverses these rejections too, and reserves the right to address the Office's contentions with respect to these dependent claims in the future, if the need so arises. However, these claims depend from independent claim 1 or independent claim 15 and are patentable for

at least the reasons that claims 1/15 are patentable over the cited art, in addition to their own separate reasons.

III. Conclusion

Applicant respectfully submits that pending claims 1-5 and 7-27 are patentable over the cited art. Accordingly, each of these claims is in condition for allowance. Applicant respectfully requests favorable reconsideration. If Examiner believes that further dialog would expedite consideration of the application, Examiner is invited to contact Trading Technologies Patent Counsel Mark Triplett at 312-476-1151, or the undersigned attorney or agent.

Respectfully submitted,

Date: February 6, 2008

By: <u>/Thomas J. Loos/</u> Thomas J. Loos Reg. No. 60,161

PTO/SB/08A (01-08) Approved for use through 02/29/2008. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Sheet 1

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Cor	nplete if Known
Application Number	10/800295
Filing Date	March 12, 2004
First Named Inventor	Scott F. Singer
Art Unit	3609
Examiner Name	Chia-Yi Liu
 Attorney Docket Number	04-225

of 2

	U. S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Document Number Number-Kind Code <sup>2 (il known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
		<sup>US-</sup> 7,212,999	May 1, 2007	Friesen et al.				
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			CLOSURE	Filing Date	March 12, 2004	
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				Art Unit	3609	
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Sheet 2			of 2	Attorney Docket Number 04-225		
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		Co-Pending U	.S. Patent Applic	ation Serial No. 11/415	,884 filed 5/2/2006	

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			10/800295		Filed 2004-0	3-12	
For	Scott F	. Singe	r et al.				
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		Four r	months (37 CFR 1.17(a)(4))	\$1640	\$820	\$	
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11	nomas	J. Loos	Typed or printed name			312 913 3338 Telephone Number	
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Application Number:	10	800295				
Filing Date:	12	-Mar-2004				
Title of Invention:	System and method for displaying order information in relation to a derivative of price					
First Named Inventor/Applicant Name:	Sc	ott F. Singer				
Filer:	Th	omas J. Loos				
Attorney Docket Number:	04-225					
Filed as Large Entity						
Utility Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
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Extension-of-Time:						
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Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
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EFS ID:	2820781
Application Number:	10800295
International Application Number:	
Confirmation Number:	8245
Title of Invention:	System and method for displaying order information in relation to a derivative of price
First Named Inventor/Applicant Name:	Scott F. Singer
Customer Number:	39310
Filer:	Thomas J. Loos
Filer Authorized By:	
Attorney Docket Number:	04-225
Receipt Date:	06-FEB-2008
Filing Date:	12-MAR-2004
Time Stamp:	12:44:54
Application Type:	Utility under 35 USC 111(a)

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1		Response_to_09_26_07_OA	90231	yes	11
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	Amendment - After No	n-Final Rejection	1	1	
-	Claims	3	2	8	
	Applicant Arguments/Remarks	Made in an Amendment	9	1	1
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3	3 NPL Documents	11_415884_Specification.pdf	34c390d6ca6138c7d7c672dbd760c28d 0448ad03	no	51
Warnings:					
Information:		-			
		Petition_for_extension_of_ti me_04_225.pdf	112811	no	1
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#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application or Docket Number Filing Date PATENT APPLICATION FEE DETERMINATION RECORD 10/800.295 03/12/2004 To be Mailed Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN SMALL ENTITY SMALL ENTITY (Column 1) (Column 2) OR NUMBER FILED NUMBER EXTRA RATE (\$) FEE (\$) RATE (\$) FOR FEE (\$) BASIC FEE N/A N/A N/A N/A 37 CFR 1.16(a), (b), or (c)) SEARCH FEE N/A N/A N/A N/A 37 CFR 1.16(k), (i), or (m) EXAMINATION FEE N/A N/A N/A N/A 37 CFR 1.16(o), (p), or (g) TOTAL CLAIMS OR X \$ X \$ minus 20 = (37 CFR 1.16(i)) INDEPENDENT CLAIMS X \$ = X \$ = minus 3 = (37 CER 1 16(h)) If the specification and drawings exceed 100 sheets of paper, the application size fee due APPLICATION SIZE FEE is \$250 (\$125 for small entity) for each (37 CFR 1.16(s)) additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s) MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) \* If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL TOTAL APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY SMALL ENTITY OR (Column 1) (Column 2) (Column 3) CLAIMS REMAINING HIGHEST PRESENT ADDITIONAL NUMBER 02/06/2008 RATE (\$) RATE (\$) PREVIOUSLY FXTRA FEE (\$) FFF (\$) AFTER AMENDMENT AMENDMENT PAID FOR Total (37 CFR 26 Minus 0 0 OR \*\* 27 X \$25 = X \$ Independent 2 Minus \*\*\*3 = 0 X \$105 = 0 OR X \$ = Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) ΤΟΤΑΙ TOTAL ADD'L 0 OR ADD'L FEE FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST PRESENT ADDITIONAL ADDITIONAL REMAINING NUMBER RATE (\$) RATE (\$) PREVIOUSLY EXTRA FEE (\$) FEE (\$) AFTER AMENDMENT PAID FOR ENDMEN. Total (37 CFR Minus X \$ OR = X \$ = Independent \*\*\* Minus X \$ = OR Х\$ = Application Size Fee (37 CFR 1.16(s)) ₹ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) OR TOTAL TOTAL ADD'L OR ADD'L FEE FEE \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. Legal Instrument Examiner: \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". /phyllis canty/ \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

	YED STATES PATENT	AND TRADEMARK OFFICE	UNITED STATES DEPAR United States Patent and Address: COMMISSIONER F P.O. Box 1450 Alexandria, Virginia 22, www.uspto.gov	FOR PATENTS
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,295	03/12/2004	Scott F. Singer	04-225	8245
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# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
<b></b>	10/800,295	SINGER ET AL.
Office Action Summary	Examiner	Art Unit
	CHIA-YI LIU	3609
The MAILING DATE of this communication Period for Reply	n appears on the cover sheet	with the correspondence address
A SHORTENED STATUTORY PERIOD FOR R WHICHEVER IS LONGER, FROM THE MAILIN - Extensions of time may be available under the provisions of 37 C after SIX (6) MONTHS from the mailing date of this communicatio - If NO period for reply is specified above, the maximum statutory p - Failure to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	G DATE OF THIS COMMU FR 1.136(a). In no event, however, may in. ieriod will apply and will expire SIX (6) M statute, cause the application to become	NICATION. a reply be timely filed ONTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on	12 March 2004	
	This action is non-final.	
3) Since this application is in condition for all		atters prosecution as to the merits is
closed in accordance with the practice un	•	
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Disposition of Claims		
4) Claim(s) <u>1-27</u> is/are pending in the application		
4a) Of the above claim(s) is/are with	hdrawn from consideration.	
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1-27</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction a	nd/or election requirement.	
Application Papers		
9) The specification is objected to by the Exa	miner	
10) The drawing(s) filed on is/are: a)		to by the Examiner.
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Priority under 35 U.S.C. § 119	· · · · · · · · · · · · · · · · · · ·	
12) Acknowledgment is made of a claim for for	reign priority under 35 U.S.C	. § 119(a)-(d) or (f).
a) All b) Some * c) None of:		
1. Certified copies of the priority docur		
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* See the attached detailed Office action for a	a list of the certified copies n	ot received.
Attachment(s)		
1) X Notice of References Cited (PTO-892)		w Summary (PTO-413)
	B) Paper N	o(s)/Mail Date
2) Notice of Draftsperson's Patent Drawing Review (PTO-94)		f Informal Datent Application
<ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-94)</li> <li>Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date</li> </ol>		f Informal Patent Application

# DETAILED ACTION

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 7, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kemp, II et al. (US 2002/0099644) As per Claim 1

Kemp ('644) discloses,

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 derivative of price value (round-up price) along a static value axis, the first indicator representing quantity (BidQ) associated with at least one order to buy the tradable object at the highest bid price currently available in the market, see Fig 7B. (Round up price = anything that has dependence on or relationship to price = derivative of price)

dynamically displaying a second indicator in one of a plurality of locations in an ask display region, each location in the ask display region corresponding to a derivative of price value (round-up price) along the static value axis, the second indicator representing quantity (AskQ) associated with at least one order to sell the commodity at the lowest ask price currently available in the market, see Fig 7B.

displaying the bid and ask display regions in relation to fixed derivative of price values positioned along the static value axis such that when the inside market changes, the derivative of price values along the static value axis do not move, see paragraph 0047, lines 1-3.

displaying an order entry region comprising a plurality of locations (trading cells) for receiving commands to send trade orders, each location corresponding to a derivative of price value along the static value axis, see paragraph 0085, lines 8-9, Fig 7B and column 0047, line 1.

at least one of the first and second indicators moves in the bid or ask display regions relative to the static value axis, see paragraph 0047, lines 3-6.

in response to a selection of a particular location of the order entry region by a single action of a user input device, see paragraph 0015, lines 5-6,14.

setting a plurality of parameters for a trade order relating to the tradable object and sending the trade order to the electronic exchange, see Abstract of Kemp, lines 2-3.

As per Claim 2

Kemp ('644) further discloses, displaying a numerical, graphical, or numerical and graphical representation of the derivative of price values along the common value axis, see Fig 7B.

As per Claim 7

Kemp ('644) further discloses the derivative of price values are updated at predetermined intervals, see paragraph 0039, lines 16-19.

As per Claim 9

Kemp ('644) further discloses the derivative of price values are updated in response to detecting a programmed event, paragraph 0039, lines 16-19.

As per Claim 10

Kemp ('644) further discloses displaying a plurality of bid and offer indicators in association with the derivative of price values, wherein each of the bid indicators represents a quantity (BidQ) available to buy the tradable object and each of the offer indicators represents a quantity (AskQ) available to sell the tradable object, see Fig. 7B.

As per Claim 11

Kemp ('644) further discloses consolidating the derivative of price values on the static value axis such that groups of two or more values are combined into consolidated value levels, see paragraph 0018, lines 2-3.

consolidating the display of the plurality of bid and offer indicators into a plurality of consolidated bid and offer indicators so that each consolidated bid and offer indicator represents quantity associated with a the two or more values within a consolidated value level, see Claim 1 of Kemp, lines 4-13.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6, 12-15, 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al. (US 2002/0099644) in view of Kane (US 6,317,728)

# As per Claim 3

Kemp ('644) does not specifically disclose each of the derivatives of price values are based through a common relationship on a different price.

Kane ('728) teaches each of the derivative of price (Delta) values are based through a common relationship on a different price, see Fig 19. (Delta = change in price. Each delta value is based on a different price through common relationship)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include a common relationship based on different price.

One of ordinary skill in the art would be motivated to do so for the benefit of comparing pieces of price information.

## As per Claim 4

Kemp ('644) further discloses the common relationship is input through a graphical user interface, see paragraph 0014, lines 1-3 and Fig 7B.

As per Claim 5

Kemp ('644) does not specifically disclose the derivative of price values comprises a net change and that the common relationship comprises Net change = (Value(s) at Current Point) - (Value(s) at Reference Point).

Kane ('728) teaches the derivative of price values comprise a net change (Delta). The common relationship comprises Net change = (Value(s) at Current Point) -(Value(s) at Reference Point), see Fig 19. (Delta = price change between two points of time = current value – previous value)

(According to applicant's Specification, "Net change" = difference in value between two points in time, which includes the net change of price or a change in any other measurement and that Reference point = one or more values at an earlier point of time)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include a net change.

One of ordinary skill in the art would be motivated to do so for the benefit of presenting one more market information for comparison.

#### As per Claim 6

Kemp ('644) does not specifically disclose the derivative of price values comprise yield, profit and loss, volatility, or momentum indicators,

Kane ('728) teaches volatility, see Fig 19 (High/Low/Delta = volatility) and Fig 20.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include volatility.

One of ordinary skill in the art would be motivated to do so for the benefit of presenting one more market information for comparison.

As per Claim 12

Kemp ('644) does not specifically disclose displaying a second set of values along the static value axis, wherein each of the second set of values corresponds to each of the derivative of price values on the value axis.

Kane ('728) teaches displaying a second set of values (Delta) along the static value axis, wherein each of the second set of values corresponds to each of the derivative of price values (High/Low) on the value axis, see Fig 19.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include a second set of values correspond to each of derivative of price values.

One of ordinary skill in the art would be motivated to do so for the benefit of grouping and comparing sets of values.

As per Claim 13

Kemp ('644) does not specifically disclose each of the second set of values represents a price.

Kane ('728) teaches each of the second set of values (Delta) represents a price, see Fig 19.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include each of the second set of values represent a price.

One of ordinary skill in the art would be motivated to do so for the benefit of presenting another price information for comparison.

As per Claim 14

Kemp ('644) does not specifically disclose each of the second set of values represents a different derivative of a price.

Kane ('728) teaches each of the second set of values (Delta) represents a different derivative of a price, see Fig 19. (Derivative of price = anything that has dependence on or relationship to price. Delta = change in price)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include each of the second set of values represent a different derivative of price.

One of ordinary skill in the art would be motivated to do so for the benefit of presenting another price information for comparison.

As per Claim 15

Kemp ('644) discloses,

dynamically displaying a first indicator (BidQ) in a location in a bid display region, the location in the bid display region corresponding to one of the plurality of price

derivative (Round-up-price) values, see Fig 7B. (Round-up-price has dependence on or relationship to price = derivative of price)

the first indicator representing quantity (BidQ) associated with at least one order to buy the tradable object at the highest bid price currently available in the market, see Fig 7B. (Quantity at highest bid price= 108)

dynamically displaying a second indicator (AskQ) in a location in an ask display region, the location in the ask display region corresponding to one of the plurality of price derivative values, see Fig 7B.

the second indicator representing quantity (AskQ) associated with at least one order to sell the tradable object at the lowest ask price currently available in the market, see Fig 7B. (Quantity at lowest ask price= 206)

Kemp ('644) does not specifically disclose calculating a plurality of price derivative values, wherein each of the plurality of price derivative values represents a change between a first number at a first point in time and at a second number at a second point in time.

Kane ('728) teaches calculating a plurality of price derivative values, wherein each represents a change between a first number at a first point in time and at a second number at a second point in time, see Fig 19. (Both Trend and Delta are about price change between two points of time)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include calculating a plurality of price derivative values, each represent a change between a first number at a first point in time and a second number at a second point in time.

One of ordinary skill in the art would be motivated to do so for the benefit of comparing price spread.

As per Claim 22

Kemp ('644) further discloses the plurality of price derivative values in the bid and ask display regions are positioned along a static value axis, see Fig 7B.

As per Claim 23

Kemp ('644) further discloses the bid and ask display regions are displayed in relation to fixed derivative of price values positioned along the static value axis such that when the inside market changes, the derivative of price values along the static value 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 static value axis, column 0047, lines 1-6 and Fig 7B.

As per Claim 24

Kemp (<sup>6</sup>644) further discloses receiving a recentering command to approximately center the first and second indicators in the bid and ask display regions, see paragraph 0050, lines 6-9.

As per Claim 25

Kemp ('644) further discloses derivative of price values are along the static value axis, see Fig 7B and column 0047, line 1.

displaying an order entry region comprising a plurality of locations (trading cells) for receiving commands to send trade orders (enter an order), each location corresponding to a derivative of price, see paragraph 0085, lines 8-11 and Fig 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 (restrictions/elements) for a trade order relating to the tradable object and sending the trade order to the electronic exchange, see paragraph 0007, lines 1-3, 8-10 and paragraph 0015, lines 5-6 and 13-16.

As per Claim 26

Kemp ('644) does not specifically disclose the plurality of price derivative values are represented by numbers.

Kane ('728) teaches the plurality of price derivative values are represented by numbers, see Fig 19 (Delta).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include the plurality of price derivative values are represented by numbers.

One of ordinary skill in the art would be motivated to do so for the benefit of comparing data.

As per Claim 27

Kemp ('644) does not specifically disclose the plurality of price derivative values are represented graphically.

Kane ('728) teaches the plurality of price derivative (Trend) values are represented graphically, see Fig 19.

(Graphical form = shapes, colors, or any other graphic to represent price derivatives. Generated value do not need to be displaced so long as market info is displayed in relation to derivative of price value) ("UP" and "DOWN" could easily be represented with arrows = graphic form)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include the plurality of price derivative values are represented graphically.

One of ordinary skill in the art would be motivated to do so for the benefit of creating alternative way of presenting and comparing data.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al. (US 2002/0099644) in view of Barclay (US 6,850,555)

As per Claim 8

Kemp ('644) does not specifically discloses displaying a region for receiving a command to update the derivative of price values, wherein the derivative of price values are updated in response to a selection of the region with a user input device.

Barclay ('555) teaches price updated in response to user input, see Claim 31, lines 53-57.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include price updated in response to user input.

One of ordinary skill in the art would be motivated to do so for the benefit of changing price manually.

Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al. (US 2002/0099644) in view of Kane (US 6,317,728) and further in view of Wolfberg et al. (4,885,685)

As per Claim 16

Kemp ('644) does not specifically disclose the first number represents a particular value of interest and the first point in time represents a designated time of interest.

Wolfberg ('685) teaches the first number (current amount) represents a particular value of interest and the first point in time represents a designated time (current) of interest, see column 22, lines 26-28.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include the first number represents a particular value of interest and the first point in time represents a designated time of interest.

One of ordinary skill in the art would be motivated to do so for the benefit of comparing price spread.

As per Claim 19

Kemp ('644) does not specifically disclose the second number represents a second particular value of interest and the second point in time represents a second designated time of interest.

> Wolfberg ('685) teaches the second number (previous months amount) represents a second particular value of interest and the second point in time represents a second designated time (previous month) of interest, see column 22, lines 26-28.

> Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kemp's invention to include the first number represents a particular value of interest and the first point in time represents a designated time of interest.

One of ordinary skill in the art would be motivated to do so for the benefit of comparing price spread.

#### As per Claim 17

the first number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value, see Table 1 (Last Price)

#### As per Claim 18

Kemp ('644) further discloses the particular value of interest is input through a graphical user interface, see paragraph 0014, lines 1-3 and Fig 7B.

#### As per Claim 20

the second number represents a last traded price, a settlement price, a last bidprice, a last ask price, a yield value, or a profit and loss value, see Table 1 (Bid Price)

As per Claim 21

Kemp ('644) further discloses the second particular value of interest is input through a graphical user interface, see paragraph 0014, lines 1-3 and Fig 7B.

# Page 15

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIA-YI LIU whose telephone number is (571) 270-1573. The examiner can normally be reached on Mon-Thur alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TOM DIXON can be reached on (571) 272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

> CHIA-YI LIU Examiner Art Unit 3609

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#### U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0099644	07-2002	Kemp et al.	705/37
*	в	US-6,317,728	11-2001	Kane, Richard L.	705/36R
*	с	US-4,885,685	12-1989	Wolfberg et al.	705/14
*	D	US-6,850,555	02-2005	Barclay, Michael John	375/141
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### FOREIGN PATENT DOCUMENTS

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#### NON-PATENT DOCUMENTS

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\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

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APPLICANTS Scott F. Singer, Lake Bluff, IL; Michael J. Burns, Chicago, IL; Fred Monroe, Silver Springs, MD;									
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Part of Paper No.: 20070823

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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	10800295	SINGER ET AL.
	Examiner	Art Unit
	LIU, CHIA-YI	3609

SEARCHED							
Class	Subclass	Date	Examiner				
705		8/23/2007	C.L.				

SEARCH NOTES								
Search Notes	Date	Examiner						
East Search	8/23/2007	C.L.						

INTERFERENCE SEARCH						
Class	Subclass	Date	Examiner			

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Part of Paper No. : 20070823

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	299	update with price same input	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 11:01
L2	606	updat\$3 with price same input	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 11:01
Ľ	53531	("705").CLAS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/09/11 11:01
L4	316	L2 and L3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:11
L5	252946	user near3 input	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:11
L6	147	L4 and L5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:12
L7	14303	updat\$3 same (input near3 user)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:13

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L8	1591	L3 and L7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:13
L9	63	(updat\$3 near3 price) same (input near3 user)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:13
L10	39	L3 and L9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/11 15:13
S1	2	("7043449").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/09/10 11:15
S2		("9589751").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/23 09:39
S3	15	"09589751"	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/23 09:40
S4	15	"09589751"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/23 09:41

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S5	25	"09590692"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON .	2007/08/23 16:13
S6	410	derivative near3 price	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/23 16:14
S7	50965	("705").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/08/23 16:14
S8	273	S6 and S7	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/23 16:44
S9	: 153	bid same quantity same price same (yield or profit or loss or volatility)	US-PGPUB; USPAT; USOCR	OR	ON	2007/08/23 16:46
S10	155	bid same quantity same price same (yield or profit or loss or volatility)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/23 16:47
S11	152	S7 and S10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/23 16:47
S12	10436	price with (beta or yield or profit or loss or volatility)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:24
S13	248976	order and trad\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:26

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S14	2820	S12 and S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:26
S15	53175	("705").CLAS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/29 10:27
S16	2 <b>087</b> ·	S14 and S15	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:28
<b>S17</b>	6469887	(net near3 change) or reference	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:29
S18	1921	S16 and S17	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:29
S19	533444	updat\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:30
S20	1367	S18 and S19	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:30

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<b>S21</b>	8761	bid and (offer or ask)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:30
S22	841	S20 and S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:32
S23	469	bid same (offer or ask) same (yield or profit or loss or vilatility or beta)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/29 10:33
S24	223	S22 and S23	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON ,	2007/08/29 10:33
S25	4	"2002009644"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 09:55
S26	1	("2002/0059129").URPN.	USPAT	OR	ON	2007/08/30 11:33
S27	2	"1067471"	USPAT	OR	ON	2007/08/30 11:33
S28	10	"1067471"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:40
S29	20540	price same (yield or profit or loss or volatitily)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:41

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S30	0	price same yield same profit same volatitily	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:41
S31	53330	("705").CLAS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 11:42
<b>S32</b>	0	("L21andL23andtrad\$andorder"). PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/30 11:42
S33	3289	S29 and S31 and trad\$ and order	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:42
S34	1773	S29 and S31 and trad\$ and order and update	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON .	2007/08/30 11:42
S35	2285	S29 and S31 and trad\$ and order and updat\$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:43
S36	1179	S29 and S31 and trad\$ and order and updat\$ and bid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:43

S37	746	S29 and S31 and trad\$ and order and updat\$ and bid and quantity	US-PGPUB; USPAT;	OR	ON	2007/08/30 11:45
		and interface	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S38	724	S29 and S31 and trad\$ and order and updat\$ and bid and quantity and interface and market	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 11:47
S39	1	("2002/0059129").URPN.	USPAT	OR	ON	2007/08/30 11:46
S40	9	("6938011").URPN.•	USPAT	OR	ON	2007/08/30 11:46
S41	288	S29 and S31 and trad\$ and order and updat\$ and bid and quantity and interface and market and (P&L or (profit with loss) or volati\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 15:59
S42	0	"last ask price" and yield and (last near2 price)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 16:01
S43	4	"last ask price"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	<b>ON</b>	2007/08/30 16:01
S44	61	yield and (last near2 price) and (profit with loss)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/08/30 16:01
S45	1579059	(yield or (profit with loss) or volatility)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/10 11:15

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S46	9761	(yield or (profit with loss) or	US-PGPUB;	OR	ON	2007/09/10 11:16
	9701	volatility) same price	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			2007/09/10 11:16
S47	10176	net near3 change	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/10 11:16
S48	158	S46 and S47	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/10 16:00
S49	17755	delta with change	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/10 16:01
S50	53498	("705").CLAS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/09/10 16:01
S51	326	S49 and S50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/10 16:01
S52	1	("2002/0059129").URPN.	USPAT	OR	ON	2007/09/10 16:21
S53	5580	delta with ("traded price" or "bid price" or "ask price" or yield or profit)	USPAT	OR	ON	2007/09/10 16:22
S54	19	S50 and S53	USPAT	OR	ON	2007/09/10 16:22

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U.S. PTO	Submit an original and a	LICATION TRANSMITTAL a duplicate for fee processing applications under 37 CFR 1.53(b))	22386 U. 10/8002 031204
	ADDRESS TO:         Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450         APPLICATION ELEMENTS         1       X Transmittal Form with Fee         2       Specification (including claims and abstract)         3       X Drawings         1       Oath or Declaration         4       X Oath or Declaration         5       Copy from prior application [Note Boxes 5 and 18 below]         6       Deletion of Inventor(s) Signed statement attached deleting inventor(s) named in the prior application         5       Incorporation by Reference: The entire disclosure of the accompanying application and is hereby incorporated by reference threein.         6       Application Data Sheet (See 37 CFR 1.76)         7       Computer Code Listing (See 1.96) a.         a.       Microfiche Appendix b.         b.       CD-Rom (in duplicate, with separate transmittal)         8.       Nucleotide and/or Amino Acid Sequence Submission a.         a.       Computer Readable Copy b.         b.       Paper Copy c.         c.       Statement verifying above copies         9.       Small Entity Status is claimed         Statement filed in prior application; status still proper and desired is no longer claimed.         19.       This is a Continuation	sional Continuation-in-part rial No claims of the prior application before calculating must remain.) ng before the first line the sentence: nal continuation-in-part	

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	T APPLICATION TRANSMIT	TAL Attorne	y Docket No. 04-	-225					
		LICATION FEES	· · · · · · · · · · · · · · · · · · ·						
BASIC FEE				\$ 770.00					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE						
Total Claims	27 -20 =	7	x \$18.00	\$ 126.00					
Independent Clai	ims 3 - 3 =		x \$86.00	\$					
Multiple Depe	ndent Claims(s) if applicable		+\$290.00	\$					
			e calculations =	\$ 896.00					
		eduction by 50% for filing l							
🛛 Assignment fo	ee if applicable		+ \$40.00						
20. Please	charge my Deposit Account N		TOTAL =	\$ 488.00					
a. A b b. A b c. A b 23. The Commi reply in this or ar incorporating a re		1.16. 1.17. 1.18. uthorized under 37 CFR 1. suant to 37 CFR 1.53 requ missioner is hereby specifi	iring an extension cally authorized t	n of time as o charge					
deposited with addressed to M	the United States Postal lail Stop Patent Application l450, on the date indicated I	Service as "Express M , Commissioner for Pate	I hereby certify that, under 37 CFR § 1.10, I directed that the correspondence identified above I deposited with the United States Postal Service as "Express Mail Post Office to Addressee addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandri Virginia 22313-1450, on the date indicated below.						
		39310							
	Trading Tech								
	Trading Tech 26. SIGNATURE OF APPLIC	39310 mologies International, Inc.		)					
Name		39310 mologies International, Inc.		)					
	26. SIGNATURE OF APPLIC	39310 mologies International, Inc.		)					
Name	26. SIGNATURE OF APPLIC Matthew J. Sampson 35,999	<b>39310</b> Inclogies International, Inc ANT, ATTORNEY, OR AG		)					
Name Reg. No.	26. SIGNATURE OF APPLIC Matthew J. Sampson 35,999	39310 mologies International, Inc.		)					

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[Page 2 of 2]

<b>REQUEST AND CERTIFICATION</b>	Attorney Docket No.	04-225
UNDER	First Named Inventor	Scott F. Singer
35 U.S.C. 122(b)(2)(B)(i)	Express Mail Label No.	EV334694993US

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

Name	McDonnell Boehnen Hulbert & Berghoff
Address	32 <sup>nd</sup> Floor, 300 South Wacker Drive
City, State, Zip	Chicago, Illinois 60606
SI	GNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED
Name/Reg. No.	Matthew J. Sampson 35,999
Signature	Halla Sanport
Date	4March 12, 2004

[Page 1 of 1]

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U.S.			5 0 0 0 0 0 0 0 0
S. PTO	Submit an original and a	ICATION TRANSMITTAL duplicate for fee processing pplications under 37 CFR 1.53(b))	22386 10/800
	Submit an original and a	duplicate for fee processing pplications under 37 CFR 1.53(b))         Attorney Docket No.       04-225         First Named Inventor       Singer         Express Mail No.       EV334694993US         ACCOMPANYING APPLICATION PARTS         10.       Assignment Papers         11.       Power of Attorney         12.       English Translation Document (if applicable)         13.       Information Disclosure Statement (IDS)         □       PTO-1449 Form         □       Copies of IDS Citations         14.       Preliminary Amendment         15.       Return Receipt Postcard (Should be specifically itemized)         16.       Certified Copy of Priority Document(s)         17.       A Request for non-publication pursuant to 35 U.S.C. § 122(b)(2)(B)(i)         18.       Other: Application Data Sheet	
	This is a _ continuation _ divisior of application Serial No. d The prior application is assigned of		

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APPLICATION FEES           BASIC FEE         \$770.00           CLAIMS         NUMBER FILED         NUMBER EXTRA         RATE           Total Claims         27-20 =         7         x \$18.00         \$ 126.00           Independent Claims         3 - 3 =         x \$280.00         \$           Multiple Dependent Claims(s) if applicable         +\$290.00         \$           Total of above calculations =         \$ 896.00           Reduction by 50% for filing by small entity =         \$ (448.00)           Assignment fee if applicable         TOTAL =         \$ 488.00           20.         Please charge my Deposit Account No. 13-2490 in the amount of \$         \$           21.         A check in the amount of \$488.00 is enclosed.         \$           22. The Commissioner is hereby authorized to credit overpayments or charge any additional fees of the following types to Deposit Account No. 13-2490.         \$           a.         ∑ Fees required under 37 CFR 1.16.         \$           b.         ∑ Fees required under 37 CFR 1.17.         \$           c.         ∑ Fees required under 37 CFR 1.18.         \$           23.         The Commissioner is hereby generally authorized under 37 CFR 1.53 requiring an extension of time as incorporating a request therefor, and the Commissioner is hereby specifically authorized to charge beposit Account No. 13-2490 for	UTILITY PATENT APPLICATION TRANSMITTAL Attorney Docket No. 04-225			-225		
CLAIMS         NUMBER FILED         NUMBER EXTRA         RATE           Total Claims         27-20 =         7         x \$18.00         \$ 126.00           Independent Claims         3 - 3 =         x \$86.00         \$           Multiple Dependent Claims(s) if applicable         -+\$290.00         \$           Total of above calculations =         \$ 896.00           Reduction by 50% for filing by small entity =         \$ (448.00)           Assignment fee if applicable         + \$40.00         \$ 440.00           Assignment fee if applicable         + \$40.00         \$ 448.00           Image: Assignment fee if applicable         - \$ \$488.00         \$ 40.00           TOTAL =         \$ 488.00         \$ 40.00         \$ 40.00           Image: Assignment fee if applicable         - \$ \$488.00         \$ 40.00         \$ TOTAL =         \$ \$ 488.00           Image: Assignment fee if applicable         - \$ \$ \$488.00         \$ TOTAL =         \$ \$ 488.00         \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 488.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00         \$ \$ 40.00				· · · · · ·		
CLAIMS       NUMBER FILED       NUMBER EXTRA       RATE         Total Claims       27-20 =       7       x \$18.00       \$ 126.00         Independent Claims       3 - 3 =       x \$86.00       \$         Multiple Dependent Claims(s) if applicable       +\$290.00       \$         Total of above calculations =       \$ 896.00         Reduction by 50% for filing by small entity =       \$ (448.00)         Assignment fee if applicable       + \$40.00       \$ 440.00         Zassignment fee if applicable       + \$40.00       \$ 448.00         Zassignment fee if applicable       + \$40.00       \$ 448.00         Zassignment fee if applicable       + \$40.00       \$ 448.00         Zassignment fee if applicable       - \$488.00       \$ 40.00         Zassignment fee if applicable       - \$488.00       \$ 40.00         Zassignment fee if applicable       - \$488.00       \$ 40.00         Zassignment fee if applicable       - \$488.00       \$ another \$ \$488.00         Zassignment fee if applicable       - \$488.00       \$ another \$ \$488.00         Zassignment fee if applicable       - \$488.00       \$ another \$ \$488.00         Zassignment fee if applicable       - \$2490       \$ another \$ \$488.00         Zastepsize       - \$268860       \$ CFR	BASIC FEE				\$ 770.00	
Independent Claims       3 - 3 =       x \$86.00 \$         Multiple Dependent Claims(s) if applicable       Total of above calculations =       \$ 895.00         Reduction by 50% for filing by small entity =       \$ (448.00)       \$ 440.00         Standard Claims(s) if applicable       + \$40.00 \$ 40.00       \$ 40.00         Image: Claims Claims(s) if applicable       + \$40.00 \$ 440.00       \$ 40.00         Image: Claims		NUMBER FILED	NUMBER EXTRA	RATE		
Multiple Dependent Claims(s) if applicable       +\$290.00       \$         Total of above calculations =       \$ 896.00         Reduction by 50% for filing by small entity =       \$ (48.00)         Assignment fee if applicable       +\$40.00       \$ 440.00         Image: Comparison of the set of	Total Claims		7			
Total of above calculations =       \$ 896.00         Reduction by 50% for filing by small entity =       \$ (448.00)         Assignment fee if applicable       + \$40.00       \$ 448.00         TOTAL =       \$ 448.00       TOTAL =       \$ 448.00         20.       Please charge my Deposit Account No. 13-2490 in the amount of \$         21.       A check in the amount of \$488.00 is enclosed.         22. The Commissioner is hereby authorized to credit overpayments or charge any additional fees of the following types to Deposit Account No. 13-2490:         a.       ⊠ Fees required under 37 CFR 1.16.         b.       ⊠ Fees required under 37 CFR 1.17.         c.       ⊠ Fees required under 37 CFR 1.18.         23. The Commissioner is hereby generally authorized under 37 CFR 1.53 requiring an extension of time as incorporating a request therefor, and the Commissioner is hereby specifically authorized to charge Deposit Account No. 13-2490 for any fee that may be due in connection with such a request for an extension of time.         24. CERTIFICATE OF MAILING         1 hereby certify that, under 37 CFR § 1.10, I directed that the correspondence identified abov deposited with the United States Postal Service as "Express Mail Post Office to Address addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexan Virginia 22313-1450, on the date indicated below.         25. USPTO CUSTOMER NUMBER       26. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED         Name       Matthew J. S		-				
Reduction by 50% for filing by small entity =       \$(448.00)         Image: State in the state int the sta	Multiple Depen	dent Claims(s) if applicable				
☑ Assignment fee if applicable       + \$40.00       \$ 40.00         TOTAL =       \$ 488.00         20. □       Please charge my Deposit Account No. 13-2490 in the amount of \$         21. ☑ A check in the amount of \$488.00 is enclosed.         22. The Commissioner is hereby authorized to credit overpayments or charge any additional fees of the following types to Deposit Account No. 13-2490:         a. ☑       Fees required under 37 CFR 1.16.         b. ☑       Fees required under 37 CFR 1.17.         c. ☑       Fees required under 37 CFR 1.18.         23. The Commissioner is hereby generally authorized under 37 CFR 1.53 requiring an extension of time arcorporating a request therefor, and the Commissioner is hereby specifically authorized to charge incorporating a request therefor, and the Commissioner is hereby specifically authorized to charge Deposit Account No. 13-2490 for any fee that may be due in connection with such a request for an extension of time.         24. CERTIFICATE OF MAILING         I hereby certify that, under 37 CFR § 1.10, I directed that the correspondence identified abov deposited with the United States Postal Service as "Express Mail Post Office to Address addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexan Virginia 22313-1450, on the date indicated below.         25. USPTO CUSTOMER NUMBER       26. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED         Name       Matthew J. Sampson         Reg. No.       35,999         Signature       Matthew J. 2004						
20.       TOTAL =       \$ 488.00         20.       Please charge my Deposit Account No. 13-2490 in the amount of \$         21.       A check in the amount of \$488.00 is enclosed.         22.       The Commissioner is hereby authorized to credit overpayments or charge any additional fees of the following types to Deposit Account No. 13-2490:         a.       A fees required under 37 CFR 1.16.         b.       M Fees required under 37 CFR 1.17.         c.       M Fees required under 37 CFR 1.18.         23.       The Commissioner is hereby generally authorized under 37 CFR 1.53 requiring an extension of time as incorporating a request therefor, and the Commissioner is hereby specifically authorized to charge Deposit Account No. 13-2490 for any fee that may be due in connection with such a request for an extension of time.         24. CERTIFICATE OF MAILING         I hereby certify that, under 37 CFR § 1.10, I directed that the correspondence identified abov deposited with the United States Postal Service as "Express Mail Post Office to Address addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexan Virginia 22313-1450, on the date indicated below.         26. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED         Name       Matthew J. Sampson         Reg. No.       35.999         Signature       March 12, 2004						
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Signature March 12, 2004	Name	Matthew J. Sampson				
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Date March 12, 2004	Signature	Hallean	fsau			
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[Page 2 of 2]

REQUEST AND CERTIFICATION UNDER 35 U.S.C. 122(b)(2)(B)(i)	Attorney Docket No.	04-225
	First Named Inventor	Scott F. Singer
	Express Mail Label No.	EV334694993US

I hereby certify that the invention disclosed in the attached application **has not and will not be** the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. I hereby request that the attached application not be published under 35 U.S.C. 122(b).

Name	McDonnell Boehnen Hulbert & Berghoff		
Address	32 <sup>nd</sup> Floor, 300 South Wacker Drive		
City, State, Zip	Chicago, Illinois 60606		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED			
Name/Reg. No.	Matthew J. Sampson 35,999		
Signature	Halling Sauperly		
Date	4March 12, 2004		

[Page 1 of 1]

## APPLICATION FOR A UNITED STATES PATENT UNITED STATES PATENT AND TRADEMARK OFFICE

TITLE: A System and Method for Displaying Order Information in Relation to a Derivative of Price

INVENTORS: Scott F. Singer Michael J. Burns Fred Monroe

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## A SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

FIELD OF INVENTION

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The present invention relates to electronic trading. More specifically, the present invention relates to displaying market information on a screen.

#### BACKGROUND

An electronic exchange provides an automatic matching process between buyers and sellers, also referred to herein as traders. In particular, traders connect to an electronic exchange over a communication link. If necessary, a gateway is sometimes used to connect the trader with the electronic exchange. Once a trader is connected, the electronic exchange can broadcast its data feed to the traders over the communication link. Subsequently, the traders receive the data feed, in one form or another, and their

- 15 computers process the information. Traders may respond by sending orders to buy or sell the tradeable object. When the electronic exchange receives an order, it may check the limits of the order, for example price and quantity, and prioritize the order. When buy and sell orders match, a trade occurs and information relating to the trade is relayed back to the traders' computers.
- 20 The kinds of information that are present in an electronic exchange's data feed are relatively dependent on the exchange itself. However, most electronic exchanges provide the same key pieces of information. For instance, they typically provide the best prices. This might include the best bid price, which represents the highest price that someone is willing to pay for the tradeable object, and the best offer price, which represents the

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lowest price that someone is willing to sell the tradeable object. A data feed might also include one or more levels of the next best prices such as the next highest bid price(s) or the next lowest ask price(s). Along with price information, an electronic exchange will likely provide the bid and offer quantities available at those prices. More advanced

5 electronic exchanges may even provide things like the last traded price ("LTP"), the last traded quantity ("LTQ"), the previous day's settlement price, the open price, the close price and other information.

The data feed's content can be displayed to a trader using a variety of different formats, any of which would be known to one of ordinary skill in the art. To provide the reader with a general background, two examples are provided directly below, with the understanding that many different formats and variations of the example screens shown in FIG. 1 and FIG. 2 exist and could also be used.

In one example, FIG. 1 illustrates a typical display 100 used in electronic trading. A trading screen similar to that shown in FIG. 1 is commercially available, as the Market window in the X\_Trader® product offered by Trading Technologies International, Inc. of Chicago, Illinois. In general, display 100 has an order entry section 102 and a market grid section 104. The order entry section 102 may have pre-set fields, properties, and buttons that can help someone trade quickly and efficiently. The market grid section 104 displays tradeable object information such as the tradeable objects name 106, number of

20 working buy orders 108, bid quantities 110, bid prices 112, sell prices 114, sell quantities 116 and working sell orders 110. For instance, "object 1" is a tradeable object that has an inside market with a best bid price of "230" and a best offer price of "232." The quantity

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available at the inside market is "15" at "230" and "10" at "232." In another instance, "object 2" is another tradeable object that has an inside market with a best bid price of "190" and a best offer price of "192." The quantity available at the inside market is "45" at "190" and "90" at "192."

In another example, FIG. 2 illustrates an evolved and more intuitive trading screen 200. A trading screen similar to that shown in FIG. 2 is also commercially available, as MD Trader<sup>™</sup>, from Trading Technologies International, Inc. of Chicago, Illinois. Trading screen 200 displays the same type of information as trading screen 100 in FIG. 1, except that it displays, among other things, bids 202 and offers 204 in

10 association with price values along axis 206. Thus, a trader may view the market as it moves relative to price values on axis 206. Moreover, traders may enter orders quickly through trading screen 200 by simply clicking, with a mouse or some other input device, on specific areas on the screen associated with the price values.

In addition to viewing traditional-style trading screens, traders are often interested in analyzing other pieces of highly relevant information that are not normally provided in an electronic exchange's data feed nor displayed by a trading screen. For instance, they might make quick mental calculations, use charting software, or look to other sources to provide additional insight beyond what is normally provided by an exchange or a typical trading screen. Some even trade directly off this information. Regardless of what source

20 or sources a trader might use, it may be too difficult for the trader to quickly assimilate this highly relevant information from diverse and often unrelated sources or even effectively process all of the information to make informed trades. In doing so, the trader

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must attempt to determine various trends in the buying or selling of the tradeable object to favorably characterize the market.

In the following detailed description, a system and method for displaying, on a trading screen, order information in relation to a derivative of price, and in particular, for

5 displaying the derivative of price along an axis, are described. These tools provide advantages, as described below, to a trader in an electronic trading environment.

## BRIEF DESCRIPTION OF THE DRAWINGS

Many aspects of the preferred embodiments may be better understood with reference to the following drawings. The components in the drawings are not necessarily to scale, emphasis instead being placed upon illustrating example embodiments.

5 FIG. 1 illustrates one example format used to convey market information received from an electronic exchange to a trader;

FIG. 2 illustrates a second example format used to convey market information received from an electronic exchange to a trader along an axis;

FIG. 3 illustrates an overview of an example system configuration, in accordance
with the preferred embodiments, used to relay market information to a variety of trading terminals;

FIG. 4 illustrates a flow diagram of an example process for generating a derivative of price axis and displaying order information in association with derivative of price values on the axis;

15 FIG. 5 illustrates an example graphical user interface that can be used to select price derivative types for use in generating price derivative values;

FIGS. 6-9 illustrate an example screen in accordance with an aspect of the preferred embodiments; and

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FIG. 10 illustrates an example screen in accordance with another aspect of the preferred embodiments.

#### DETAILED DESCRIPTION

#### I. Overview

The system and method of the present invention are appropriate for use in any electronic trading screen, and work particularly well with a trading screen similar to that

- 5 shown in FIG. 2, which displays market data in association with a price scale or axis. A trading screen like that shown in FIG. 2 is described in U.S. Patent Application No. 09/590,692, filed on June 9, 2000, and entitled, "Click Based Trading With Intuitive Grid Display of Market Depth," the contents of which are incorporated herein by reference. The system and method may also work with a trading screen like that shown in FIG. 1,
- 10 which is described in U.S. Patent Application No. 09/589,751, filed on June 9, 2000, and entitled, "Click Based Trading with Market Depth Display," the contents of which are incorporated herein by reference.

In the description that follows, in the interest of clarity, aspects of the preferred embodiments will focus primarily on generating values that are derivatives of price and 15 then displaying these values along an axis on a screen. Thereon, market information is displayed in relation to the value axis. Though, it is understood that the system and method of the present invention may be applied to any trading screen and are not limited to those with use of an axis. It is further understood that the generated values do not actually need to be displayed to a trader so long as market information is displayed in

20 relation to the derivative of price values on the value axis.

As used herein, a derivative of price is anything that has some dependence on or relationship to price. For instance, a derivative of price (or "price derivative") might result from a formula or other logical relation. There are many different possible price derivatives and they are readily apparent to one of ordinary skill in the art. Accordingly,

5 an example embodiment using net change as the derivative of price is primarily described with the understanding that there are numerous other price derivative types. For further illustration, however, some additional examples are also included.

Other systems, methods, features, and advantages of the present invention will be or become apparent to one with skill in the art upon examination of the following

10 drawings and description. It is intended that all such additional systems, methods, features, and advantages be within the scope of the present invention, and be protected by the accompanying claims.

### II. Example Trading System

The system and method of the preferred embodiments are appropriate for use in any electronic trading environment. The example electronic trading system, comprising various elements, is described with the understanding that there are numerous equivalent elements and systems, all of which will be apparent to one of ordinary skill in the art.

FIG. 3 is a block diagram that illustrates an example electronic trading system300. The electronic trading system 300 includes one or more electronic exchanges

20 generally indicated as 302, 304, 306 and one or more client devices generally indicated as 308, 310, 312. Intermediate devices such as gateways 314, 316, 318, routers (not

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shown), and other such types of network devices may be used to connect network 320 to networks 322, 324, 326 so that client devices 308, 310, 312 and exchanges 302, 304, 306 can communicate.

As indicated above, the preferred embodiments are not limited to any particular trading system configuration. For instance, networks 322, 324, 326 could represent the same network, network 320 could represent the same network as networks 322, 324, 326, or client devices 308, 310, 312 could connect directly to gateways 314, 316, 318. In addition, it is understood that the preferred embodiments may be implemented with systems that have only one electronic exchange (e.g., any of electronic exchanges 302,

10 304, 306) that lists one or more tradeable objects.

#### A. Electronic Exchange

In one embodiment, electronic exchanges 302, 304, 306 represent electronic trading platforms that preferably support electronic transactions of various kinds of tradeable objects. Examples of more sophisticated electronic trading platforms include

15 the London International Financial Futures and Options Exchange (LIFFE), the Chicago Board of Trade (CBOT), the Chicago Mercantile Exchange (CME), the Exchange Electronic Trading ("Xetra," a German stock exchange), and the European Exchange ("Eurex").

In another embodiment, electronic exchanges 302, 304, 306 might refer to other facilities, which include more basic systems that automatically match incoming orders. According to this embodiment, for instance, an electronic exchange 302, 304, 306 might

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simply refer to an online trading place where sports fans go to buy or sell seats for an event.

Each of the electronic exchanges 302, 304, 306 may host one or more computerbased electronic markets. Traders may connect to the one or more electronic markets to trade tradeable objects. As used herein, the term "tradeable objects," refers simply to anything that can be traded with a quantity and/or price. It includes, but is not limited to, all types of tradeable objects such events, goods and financial products, which can include, for example, stocks, options, bonds, futures, currency, and warrants, as well as funds, derivatives and collections of the foregoing, and all types of commodities, such as

10 grains, energy, and metals. The tradeable object may be "real," such as products that are listed by an exchange for trading, or "synthetic," such as a combination of real products that is created by the user. A tradeable object could actually be a combination of other tradeable object, such as a class of tradeable objects.

An electronic market can implement any of the numerous types of order execution 15 algorithms; sometimes the type of algorithm depends on the tradeable object being traded. By way of illustration only, some example order execution algorithms include price/time priority (also referred to as first-in-first-out or "FIFO") and pro rata-style algorithms. The FIFO algorithm, for instance, attempts to give priority to the first person to place an order. The pro rata algorithm, for instance, splits all (or most) orders for the

20 same price at a particular point in time. The system and method of the present invention are not limited to any particular type of order execution algorithm.

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It is further understood that an electronic market might include other software and/or hardware components to perform other tasks beyond matching orders or part of orders. These software and/or hardware components may be local or remote to the physical location of an electronic exchange. In other words, the components can be

5 operated at the electronic exchange or at locations outside of the electronic exchange such as points of access. Points of access may include gateways or other fast computing devices that are nearby the electronic exchange and have access to other points of access near other electronic exchanges.

### B. Gateway

In one embodiment, gateways 314, 316, 318 function as portals to a particular electronic exchange. Gateways 314, 316, 318 may include any computing device such as a mainframe, super minicomputer, minicomputer, workstation, or personal computer that connect network 320 to networks 322, 324, 326 so that market information may be successfully passed between client devices 308, 310, 312 and exchanges 302, 304, 306.

15 According to one aspect, gateways 314, 316, 318 preferably receive market data from exchanges 302, 304, 306 and convert it to a form compatible with the protocols used by client devices 308, 310, 312 using conversion techniques known in the art. Also, as known by those skilled in the art, gateways 314, 316, 318 may have one or more servers to support the data feeds, such as a price server for processing price information,

20 an order server for processing order information, and a fill server for processing fill information. A trader at one of client devices 308, 310, 312 can preferably subscribe to price information, order information, and fill information for a particular electronic

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market hosted at exchanges 302, 304, 306. According to another aspect, gateways 314, 316, 318 preferably receive transaction information, such as orders, order changes, queries, etc. from client devices 308, 310, 312 and forward that information to corresponding exchanges 302, 304, 306.

5 In another embodiment, client devices 308, 310, 312 might connect to electronic exchanges 302, 304, 306 without the need for protocol translation. For instance, a client device might have computer software that recognizes a particular exchange's protocol, and therefore, may have a direct connection to the electronic exchange.

It is further understood that gateways or similar types of computer-based devices may be used as points of access. Accordingly, client devices 308, 310, 312 may access an electronic exchange through a gateway, especially if the gateway(s) is used as a point of access in a network and/or at an electronic exchange.

### C. Client Device

- In one embodiment, client devices 308, 310, 312 function as an interface to trade at one or more electronic exchanges 302, 304, 306. Examples of client devices include a personal computer, laptop computer, hand-held computer, and so forth. Client devices 308, 310, 312, according to one aspect of the preferred embodiments, include at least a display, processor and memory. The processor and memory, which are both well-known computer components, are not shown in the Figure for sake of clarity.
- 20 It is understood that a display includes any visual output device of a client device. For sake of illustration to the reader only, examples include a CRT-based display, LCD-

based display, a gas plasma-based display, or any other type of display device. For instance, the display device might be physically set on a desk top for a user to view, projected on a wall by a projector, or head mounted in special goggles.

It is further understood that a processor includes any device that, among other things, interprets and executes instructions. In other words, the processor functions as the "brains" of the computer device. Processor may also encompass any components that make up the computers main console to perform the functions described herein.

It is further understood that memory includes a device where information can be stored (temporarily or otherwise) on any computer readable medium and retrieved. The

10 term computer readable medium, as used herein, refers to any medium that participates in providing instructions to processor for execution. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media includes, for example, optical or magnetic disks, such as storage device. Volatile media includes dynamic memory, such as main memory or RAM

- 15 (sometimes referred to as "random access memory"). Common forms of computerreadable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, or any other magnetic medium, a CD-ROM, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, and EPROM, a FLASH-EPROM, and any other memory chip or cartridge, or any other
- 20 medium from which a computer can read.

In one embodiment, depending on what tradeable objects are being traded, each of client devices 308, 310, 312 receive market information from one or more electronic

markets hosted at any of electronic exchanges 302, 304, 306. Accordingly, market information is displayed to the trader(s) in a trading screen, in accordance with the preferred embodiments, on a visual output device or display device. A trader may also receive news to aid him in analyzing information received from the exchange.

5 Upon viewing the market information or a portion thereof, a trader may wish to send orders to an exchange, cancel orders in a market, change orders in a market, query an exchange, and so on. To do so, the trader may input various commands or signals into the client device 304, for example, by using one or more conventional means for inputting information such as typing into a keyboard, inputting commands through a

10 mouse, or inputting commands or signals through some other input device.

Upon receiving one or more commands or signals, client devices 308, 310, 312 preferably generate transaction information. In addition to or in place of manual entry, a trader might use automated trading software that automatically or semi-automatically generates transaction information. Of course, there are many different types of messages

15 and/or order types that can be submitted to an electronic exchange, all of which may be considered various types of transaction information. Once generated, for instance, transaction information is sent from client device 308 to exchange 302 over network(s) 320 and 322.

## III. System Function and Operation

20 As will be appreciated by one of ordinary skill in the art, various aspects of the preferred embodiments may be operated in an entirely software embodiment, in an

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entirely hardware embodiment, or in a combination thereof. In the interest of clarity, the preferred embodiments are described in a software embodiment based on a C or C++ language, or any other suitable programming language, which is executed on a computer device. As such, the preferred embodiments take the form of a computer program product that is stored on a computer readable medium and is executed by a suitable

instruction execution system or processor in the computer device. Examples of computer readable medium were provided above.

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It is understood that the description contained herein is considered as illustrative only of the various aspects of the preferred embodiments. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the present invention to the construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to.

In one embodiment, the system and method of the preferred embodiments may be operated at a client device. For instance, referring to FIG. 3, one of, some of, or all of

client devices 308, 310, 312 may run program software to implement the various
functions described herein. As shown in FIG. 3, each client device 308, 310, 312 is
electronically linked to each of electronic exchanges 302, 304, 306 through gateways
314, 316, 318 to receive a data feed. Preferably, each client device 308, 310, 312 may
receive data feeds from multiple electronic exchanges. A client device may use the data
feed to generate derivative of price values.

In another embodiment, the system and method of the preferred embodiments may be operated at other computing devices besides client devices 308, 310, 312. For

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instance, referring again to FIG. 3, any of gateways 314, 316, 318 may run program software to implement the functions described herein. Each gateway 314, 316, 318 is electronically linked to electronic exchanges 302, 304, 306 to receive one or more data feeds. A gateway may generate derivative of price values for display and disseminate the

- 5 values across one or more networks to client devices 308, 310, 312. In addition, gateways (not shown in FIG. 3) might be used to electronically interconnect communication between exchanges 302, 304, 306. Other types of computer devices like gateways may be used to run the program software to implement aspects of the preferred embodiments.
- In yet another embodiment, the system and method of the preferred embodiments may be operated by other computing devices at an electronic exchange. According to this embodiment, an electronic exchange could provide one or more various data feeds that include market information corresponding to a price derivative. For instance, referring again to FIG. 3, any of electronic exchanges 302, 304, 306 may run program software to implement the functions described herein. One or more data feeds with

derivative of price values may be disseminated from an electronic exchange to gateways 314, 316, 318 and/or client devices 308, 310, 312.

FIG. 4 shows a flow diagram for illustrating an example method of operation, and more specifically shows the functionality and operation of a possible implementation of
the preferred embodiments. In this regard, each block may represent a module, segment, or portion of code, which includes one or more executable instructions for implementing specific logical functions or steps in the process. Alternate implementations are included

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within the scope of the preferred embodiment of the present invention in which functions may be executed out of order from that shown or discussed, including substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those reasonable skilled in the art of the present invention.

- 5 In the interest of clarity, net change will be used to describe the flow diagram of FIG. 4, with the understanding that there are numerous other price derivatives. As used herein, net change represents a difference in value(s) between two points in time. Examples of other price derivatives include yield, profit/loss (P&L), volatility and momentum, just to name a few, and are described later in the application. It is
- 10 understood that net change may also include the net change of price, yield, P&L, volatility, momentum, or a change in any other measurement.

Turning to FIG. 4, various signals may be input into value axis generator 402. The various signals may depend on the actual price derivative. With respect to net change, reference point 404 represents one or more values at an earlier point in time.

- 15 Current point 406 represents one or more values at the current time (or some other designated time that occurs after reference point 404). Value axis generator 402 receives the inputs at each point in time and computes the price derivative values based on some predefined relationship or formula, which in this instance, is the change in values at reference point 404 and current point 406. Then, value axis generator 402 generates an
- axis of values, which may be subsequently used and updated in graphical display window
  408. The axis may also be displayed. An example relationship for net change is
  provided to the reader in the examples section of this application.

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It is understood that if the price derivative is displayed, the price derivative values may be represented in numerical form and/or graphical form. If they are represented in graphical form, then shapes, colors, or any other graphic may be used in addition to the number values or in place of the number values to represent the various price derivative

5 values. For instance, if profit and loss (P&L) was the price derivative, then the color green might be used to represent a positive P&L whereas the color red might be used to represent a negative P&L.

In one aspect, a data feed is received from an electronic exchange as described above. Information pertaining to the value type is parsed out of the data feed by value axis generator 402 and held. The information might be held in buffer storage or on some other computer readable medium. The length of time that the information is held most likely depends on the time difference between reference point 404 and current point 406. For instance, if the time difference is one-hour, then the relevant information is preferably held for approximately one-hour.

- In another aspect, a data feed is received from another software application. According to this aspect, information from another software application such as a computer-based spreadsheet or an automated trading tool, for instance, may generate values based on various pieces of market information received from an exchange and some user defined algorithm. Accordingly, the information received from the software application pertaining to the value type may be parsed and held, similarly to the way
  - information is received from an electronic exchange.

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In one embodiment, the trader can set parameters that are used in determining the price derivative through a graphical user interface. FIG. 5 shows an example embodiment of a graphical user interface. Graphical user interface 500 ("GUI") is a visual environment that preferably represents options with graphical images, such as

- 5 icons, menus, and dialog boxes on a screen. The user may select and activate these options by pointing and clicking with a mouse, selecting them with a keyboard, or by setting them with some other input device. It is also possible to set such parameters through something other than a graphical user interface, such as through command-line entry, which is not shown in FIG. 5.
- 10 As shown in FIG. 5, GUI 500 allows a user to select the price derivative of choice. In addition to, or in place of, displaying price, which is a more conventional display option shown in FIGS. 1 and 2, the preferred embodiments allow the user to select price derivatives including, but not limited to, net change, yield, profit/loss (P/L), volatility, and momentum. Preferably, the price derivative can be based on any user-
- 15 defined formula. For instance, GUI 500 might enable a user to define a particular formula (e.g., shown in FIG. 5 at "Formula Entry" by providing a user with an area for entering an equation and/or linking an equation from a third party software program), or GUI 500 might allow a user to search through a selection of one or more formulas (e.g., shown in FIG. 5 at "Browse Formulas" by browsing for predefined equations).
- 20 According to one aspect, if a user selects net change (shown as a mark "X" in a check box next to the net change option in FIG. 5), then GUI 500 allows a user to enter more detail related to net change. For instance, GUI 500 allows for input of a reference

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point 404 such as the previous settlement price, or a time differential starting at a particular day, hour, minute, and second. For instance, as shown in FIG. 5, "10" days was chosen as the reference point 404, which means that the system will preferably calculate the net change between the current time (or some other designated time, if allowed to do so) and "10" days previous to the current time.

5

According to another aspect, an option in the form of an icon or button may be provided on the trading screen that allows a trader to simply select it thereby setting the reference point 404 to the time of selection. In other words, a trader may preferably set the reference point 404 right on the trading screen, and on the fly if so desired, instead of

or in addition to, setting it through GUI 500. Then, the price derivative values may change on the fly according to the time of selection. For instance, while a trader is trading a particular tradeable object, he or she may select, preferably at any time, an icon or button that causes value axis generator 402 to immediately recalculate the net change values starting from the time of selection to the present time. This feature may also apply
to any other price derivative. Notice that an icon/button labeled "Update" is shown in FIGS. 6-10 to implement this feature. In other words, the "Update" icon can be selected

through a single action of a user input device to recalculate the price derivative values at that time. Of course, the icon or button may be placed anywhere on the screen.

According to yet another aspect, a programmed event may cause value axis generator 402 to recalculate the price derivative values. For now, let us assume that net change is the price derivative and this feature is programmed to recalculate when a user's own order is filled. According to this example assumption, if the trader's order fills,

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value axis generator 402 would calculate net change values from the time the order filled to the current time. Of course, any event may be preferably programmed so that when the event occurs, value axis generator 402 responds by generating or updating values on the value axis. This feature may also apply to any other price derivative.

- 5 In the preferred embodiments, once a price derivative is chosen, the price derivative value or values, which are generated by value axis generator 402, may be used and/or displayed in any trading screen regardless of whether the trading screen utilizes an axis. In particular, the price derivatives may be used in place of and/or displayed where prices have normally been used and/or displayed in conventional systems. Thus, one of
- 10 ordinary skill in the art will recognize that the preferred embodiments may be beneficially utilized by any particular trading screen.

## IV. Net Change Examples

#### A. <u>Generating and Displaying Data in Relation to a Price Derivative</u>

According to one example, assume that net change has been selected as the price 15 derivative and the reference point was yesterday's settlement price in units of ticks at "125," where a tick is the minimum change in a price value that is set by the exchange for each tradeable object. The last traded price ("LTP") is currently at a price of "230," shown in FIG. 6 by the "5" placed in the last traded quantity indicator column 602. Using the following relationship directly below, value axis generator 402 computes a net

20 change of 
$$+105 = 230 - 125$$
.

Net change = (Value(s) at Current Point) - (Value(s) at Reference Point)

By way of illustration, FIG. 6 shows an example screen that displays the computed net change value of "+105." Preferably, the net change value is placed approximately in the center of the display so that market data, such as bid and offer quantities, may be mapped and properly viewed by the trader. It is understood that FIGS.

- 5 6, 7, and 8 show various steps for describing one example process of generating the value axis to the reader of this application. As a commercially viable product, value axis generator 402 preferably generates the axis and maps the market data in a simultaneous, or near simultaneous, manner so that the market data can be conveyed to the trader in real-time, without disruption.
- 10 Now, value axis generator 402 can compute other net change values that correspond to price levels above and below the current last traded price. By doing this, the current bid and ask quantities may be displayed approximately near the center of the display. We end up with a value axis that includes values ranging from "+97" to "+114," shown in FIG. 7. These values may be generated in any particular way. One example
- 15 method includes moving up/down to various price levels in one-price tick-increments and calculating the net change value based on that particular price level and doing this for as many price levels as necessary. Another example method includes determining the minimum net change, which most likely corresponds directly to the minimum price tick size, and adding/subtracting the minimum net change to various levels of net change on
- 20 the value axis (e.g., FIG. 7 shows a minimum net change of "1," therefore according to this example, a value of "1" can be added/subtracted from "+105" to calculate the net change values one level above/below "+105," which can be repeated for as many levels as needed).
  - 22

FIG. 8 shows an example screen that displays the generated value axis in addition to market data. As shown, market data, such as the bid and offer quantities, are mapped to the price derivative values. Currently, the last traded price is "+105" ticks above yesterday's settlement price. This can now be seen by referring to the net change box

- 5 806, which displays the current net change value, or by viewing the last traded quantity in direct relation to the net change at 808 along the value axis. In addition, one can view the current best bid price is "+105" ticks above yesterday's settlement price, the current best offer price is "+107" ticks above yesterday's settlement price, and so on. As such, a trader can quickly and effectively determine the net change between the current state of
- 10 the market and the state of the market as it was yesterday at closing, or at whatever reference point chosen. As new market data is received, value axis generator 402 preferably updates the screen to reflect the new information.

There are alternative ways to generate the value axis. In the above example, the current last traded price ("LTP") was used to begin the generation process. Then, the remaining part of the viewable axis was completed so that market data could be mapped and easily seen by a trader on the screen. However, other items may be used instead of LTP. As such, the value axis generator 402 could be programmed to start at the best bid price, the best offer price, or some other item of interest. For instance, if the best offer price is used, then value axis generator 402 computes a net change of +107 = 232 - 125.

20 Then, value axis generator 402 can compute other net change values that correspond to price levels above and below the current best offer price.

It is understood that a trader can scroll along the value axis (e.g., by pressing the up or down arrows 810, as shown in FIG. 8) to view other net change values and/or other pieces of market information, such as working orders, relative to the value axis. When this happens, value axis generator 402 preferably completes the visible portion of the axis using the already generated values as a starting point. For instance, referring to FIG. 8, if the trader scrolls up and beyond the net change of "+114," then value axis generator 402 can start at "+114" and graphically fill in the visible locations (e.g., "+115," "+116,"...), which are not shown in the figure.

It is further understood that a trader can consolidate net change values, or any other price derivative, in a similar manner to how price levels are consolidated. Price consolidation is described in U.S. Application No. 09/971,087, filed on October 5, 2001, and entitled, "Click Based Trading with Intuitive Grid Display of Market Depth and Price Consolidation," the contents of which are incorporated herein by reference. When the interface is configured to display market information in relation to a consolidated price

15 scale, the same interface may be configured to display market information in relation to a consolidated price derivative scale. As such, market information like bid and offer quantities may be consolidated and displayed in association with a consolidated price derivative row. Consolidation of the price derivative axis may be activated through a graphical user interface, such as the trading screen itself or through some menu driven

20 interface, for instance.

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FIG. 9 shows a screen with a value axis according to another embodiment. In this example, the net change is displayed along the value axis without displaying prices as in

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FIGS. 6, 7, and 8. Again, the net change is "+105" ticks because the last trade of "5" occurred at "230." Accordingly, value axis generator 402 has generated a value axis to display market information in association with net change. As shown, the value axis shows net change values from "+97" to "+114."

- 5 A feature of the present invention is its flexibility. For instance, as indicated earlier, net change represents a difference in value between two points in time. The example described with respect to FIGS. 6, 7, 8, and 9 used the previous settlement price. However, other changes could have been tracked just as easily by value axis generator 402. For instance, the change in the best bid price or the change in the best offer price
- 10 over a certain time period could have been displayed. Accordingly, any change, of any item of interest, may be tracked and displayed on the screen.

As indicated earlier, other types of screens may benefit from the preferred embodiments, besides the trading screens that utilize an axis. FIG. 10 illustrates a screen without an axis. However, as shown, it too can display price derivatives that are

- generated by value axis generator 402. For ease of illustration, some of the data shown in the screen in FIG. 10 is equivalent to that data shown in FIGS. 8 and 9. In other words, "object 1," which represents an example tradeable object, has a current bid quantity of "15" available at the net change value of "+105," and has a current offer quantity of "10" available at the net change value of "107."
- 20 In addition, multiple scales may be used along an axis such that each scale represents a different value type. For instance, one scale might represent price and a second scale might represent a derivative of price such as shown in FIGS. 6, 7, and 8. In

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another instance, one scale might represent one type of derivative of price and a second scale might represent another type of derivative of price. Of course, one of ordinary skill in the art will appreciate that any number of scales and/or axes may be used in conveying information to the trader.

## 5 B. Order Entry

In one embodiment, a trading screen may be programmed to accept signals indicating a desire to send buy or sell orders to the exchange. For instance, a trader may be able to send orders by simply clicking in designated regions, such as in buy and/or sell order entry regions, of the display. Likewise, orders could be easily cancelled with the

10 click of a mouse. As such, the preferred embodiments build on the order entry and order cancellation concepts described in the incorporated U.S. Patent Application No. 09/590,692, entitled, "Click Based Trading With Intuitive Grid Display of Market Depth."

According to one aspect of the preferred embodiments, to enable a trader to 15 quickly send an order to electronic exchange, one or more parameters of an order are preferably based on at least one preset parameter and the location of a cursor on the display. According to one preferred embodiment, an order's quantity is based on a preset quantity while the order's price is based on the location of the cursor on the display, regardless of whether price is actually being displayed with the price derivative. Of

20 course, the preset parameter can be based on something other than quantity such as last traded quantity ("LTQ"), a theoretical value, price, or some other item of interest.

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Additionally, the preset parameter may be linked to and/or based on a dynamic value or an equation.

According to one aspect of the preferred embodiments, the display has one or more regions. Then, the regions can be set up so that one region is an order entry region

- 5 for buy orders and another region is an order entry region for sell orders. A buy order entry region can be an area dedicated for order entry, or alternatively, the buy order entry region can overlap other regions such as the bid quantity display region. The same may be true for a sell order entry region. Then, when an input device used to control the cursor is positioned over one of the order entry regions, and a button is "pressed" an
- 10 order to buy (if the cursor is positioned over the buy order entry region) or an order to sell (if the cursor is positioned over the sell order entry region) would be sent to the electronic exchange. It should also be understood that the preferred embodiments may have multiple buy regions and/or multiple sell regions. Then, for example, each of the multiple buy regions and each of the multiple sell regions could represent a different
- 15 order type. Example order types known to one skilled in the art of trading include basket, iceberg, block orders limit, limit-on-close, limit-on-open, market, market-on-close, market-on-open, odd lot, one-cancels-all, relative stop, stop limit, sweep-to-fill, and volume weighted average price.

According to one aspect of the preferred embodiments, orders can be sent to an electronic exchange by simply clicking in buy and/or sell order entry regions of the display. In other words, orders may be sent by a single-action of a user input device. As used herein, a single-action preferably refers to a single click of a mouse as a means for

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user input and interaction with the terminal display. While this describes a preferred mode of interaction, the scope of the present invention is not limited to the use of a mouse as the input device or to the click of a mouse button as the user's single-action. Rather, any action by a user within a short period of time, whether comprising one or

5 more clicks of a mouse button or other input device, is considered a single-action of the user for the purposes of the present invention.

For example, referring to FIG. 8, a buy order entry region might include cells 802 on the bid side and a sell order entry region might include cells 804 on the ask side. In particular, with a preset quantity already set, if one clicks on a cell in the buy order entry region, then an order would be sent to the exchange to buy a quantity of the tradeable object equal to the preset quantity. If one clicks on a cell in the sell order entry region, then an order would be sent to the exchange to sell a quantity of the tradeable object

equal to the preset quantity.

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In another aspect of the preferred embodiments, buttons on an input device are programmed so that when a particular button is pressed it sends a buy order to the matching engine and that when another button when pressed it sends a sell order to the matching engine. For instance, with a present quantity already set, if one clicks on a cell associated with a price with the right mouse button, then an order would be sent to the exchange to sell a quantity of the tradeable object equal to the preset quantity. If one

20 clicks on a cell associated with a price with the left mouse button, then an order would be sent to the exchange to buy a quantity of the tradeable object equal to the preset quantity.

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## **IV.** Other Price Derivative Examples

As indicated previously, any price derivative can be used so long as there is some relationship between a price and the price derivative, such as a formula. Examples include yield, P/L, volatility, and momentum. If the price derivative values are actually

5 displayed on the screen, they may be displayed to the trader in any form including a numerical format and/or a graphical format. It is understood that the following examples are considered as illustrative only, and that one skilled in the art can apply the principles described in this application to any values on an axis.

In one embodiment, yield is a derivative of price. There are many types of yield, though a commonly referred to yield is the yield to maturity (YTM), which is the interest rate by which the present values of all the future cash flows are equal to the bond's price. The YTM for U.S. Treasury bonds and notes can be determined by solving the following equation:

Price = 
$$\frac{C\left[1 - \left[\frac{1}{(1 + y_{TM})^{T}}\right]\right]}{y_{TM}} + \frac{P}{(1 + y_{TM})^{T}}$$

15 Where:

Price = Price value C = the rate of interest to be paid

P = Principal, which is the amount to be borrowed (e.g., face value or par)

T = Term

 $20 Y_{\mathsf{TM}} = YTM$ 

Using the yield equation, for instance, value axis generator can generate yield values on a value axis for which market information is appropriately mapped. To do so, various inputs into value axis generator might include the variables (fixed variables or non-fixed variables) shown in the equation above. Then, value axis generator can solve or back solve for the unknown variable, such YTM in this instance. Accordingly, the

trading display having market data mapped to yield gives traders an opportunity to trade based on yield.

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In another embodiment, profit & loss or P&L is a derivative of price. There are many ways to measure P&L, all of which may be mapped to an axis. For instance, the

- break-even point may be used. So, if a trader has bought one lot of a particular tradeable object at "230," then referring to FIG. 8, the value axis might include a "0" associated the price of "230," and then "+1" associated with "231," "+2" associated with "232," and so on, and "-1" associated with "229," "-2" associated with "228," and so on. In this instance, these P&L values represent the gross profit acquired if one lot of the particular
- 15 tradeable object was sold at the associated price. Of course, there are numerous ways to calculate P&L and one of ordinary skill in the art would recognize the many different possibilities. In addition, it will be appreciated by one of skill in the art that graphics may be used to display P&L (or any other price derivative indicator, for that matter) along the value axis instead of or in addition to using numerical values. For instance, if the trader's
- 20 P&L is positive, a color such as green might be displayed at such positive value locations whereas if the trader's P&L is negative, a color such as red might be displayed at negative value locations.

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In yet another embodiment, volatility, and in particular, implied volatility is a derivative of price. In one embodiment, implied volatility is a theoretical value (or values) designed to represent the volatility of the tradeable object underlying an option as determined by the price of the option. There are many ways to measure volatility, all of which may be mapped to an axis. A common formula used in measuring volatility is the

Black-Scholes option pricing model, a version of which is shown below:

$$C = SN(d_1) - Ke^{(-rt)}N(d_2)$$

Where:

C = Theoretical call premium

S = Current stock price

t = Time until option expiration

K = Option striking price

r = risk free interest rate

N = Cumulative standard normal distribution

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$$e = exponential term (2.7183)$$

$$d_{1} = \frac{\ln(S/K) + (r + s^{2}/2)t}{s\sqrt{t}}$$
$$d_{2} = d_{1} - s\sqrt{t}$$

s = standard deviation of stock returns

ln = natural logarithm

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Using the Black-Scholes equation, for instance, value axis generator can generate volatility values on a value axis for which market information is appropriately mapped. Then, the trading display gives traders an opportunity to trade based on volatility. Of course, many different equations can used to generate volatility values. Momentum is a type of trading strategy used by some traders. In momentum trading, traders may focus on a tradeable objects movement over the course of a defined time period. In other words, momentum is the perceived strength behind a price movement. As such, momentum indicators may be displayed along an axis. Such

5 indicators attempt to predict future market trends based on recent price and volume data. For instance, an indicator might compare the current price of a tradeable object to the price a selected number of periods ago. The resulting number represents the rate of change of the security's price over that given time period. According to this embodiment, values on the axis might change in magnitude to correspond to changes in 10 momentum at a particular price level.

#### V. Conclusion

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation

15 shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

It is further understood that the programs, processes, methods and apparatus described herein are not related or limited to any particular type of computer or network apparatus (hardware or software), unless indicated otherwise. Various types of general

20 purpose or specialized computer apparatus or computing device may be used with or perform operations in accordance with the teachings described herein.

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It is further understood that a hardware embodiment might take a variety of different forms. A hardware embodiment may be implemented as an integrated circuit with custom gate arrays or an application specific integrated circuit ("ASIC"). A hardware embodiment may also be implemented with discrete hardware components and

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circuitry. In particular, it is understood that the logic structures and method steps described in the flow diagrams may be implemented in dedicated hardware such as an ASIC, or as program instructions carried out by a microprocessor or other computing device.

The claims should not be read as limited to the described order of elements unless stated to that effect. In addition, use of the term "means" in any claim is intended to invoke 35 U.S.C. §112, paragraph 6, and any claim without the word "means" is not so intended. Therefore, all embodiments that come within the scope and spirit of the following claims and equivalents thereto are claimed as the invention.

## CLAIMS

What is claimed is:

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1. A method for displaying market information relating to a tradeable object being traded at an electronic exchange having an inside market with a highest bid price and a lowest offer price, the method comprising:

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 derivative of price value along a static value axis, the first indicator representing quantity associated with at least one order to buy the tradeable object at the highest bid price currently

10 available in the market;

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

15 available in the market;

displaying the bid and ask display regions in relation to fixed derivative of price values positioned along the static value axis such that when the inside market changes, the derivative of price values along the static value 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 static value axis;

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

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

2. The method of claim 1 further comprising displaying a numerical, graphical, or numerical and graphical representation of the derivative of price values along the

10 common value axis.

3. The method of claim 1 wherein each of the derivative of price values are based through a common relationship on a different price.

15 4. The method of claim 3 wherein the common relationship is input through a graphical user interface.

5. The method of claim 3 wherein the derivative of price values comprise a net change and the common relationship comprises *Net change* = (*Value(s) at Current Point*)

20 - (Value(s) at Reference Point).

6. The method of claim 1 wherein the derivative of price values comprise yield, profit and loss, volatility, or momentum indicators.

7. The method of claim 1 wherein the derivative of price values are updated at predetermined intervals.

5 8. The method of claim 1 further comprising displaying a region for receiving a command to update the derivative of price values, wherein the derivative of price values are updated in response to a selection of the region with a user input device.

9. The method of claim 1 wherein the derivative of price values are updated in10 response to detecting a programmed event.

10. The method of claim 1 further comprising displaying a plurality of bid and offer indicators in association with the derivative of price values, wherein each of the bid indicators represents a quantity available to buy the tradeable object and each of the offer indicators represents a quantity available to sell the tradeable object.

11. The method of claim 10 further comprising:

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consolidating the derivative of price values on the static value axis such that groups of two or more values are combined into consolidated value levels; and

20 consolidating the display of the plurality of bid and offer indicators into a plurality of consolidated bid and offer indicators so that each consolidated bid and offer indicator represents quantity associated with a the two or more values within a consolidated value level.

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12. The method of claim 1 further comprising displaying a second set of values along the static value axis, wherein each of the second set of values corresponds to each of the derivative of price values on the value axis.

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13. The method of claim 12 wherein each of the second set of values represents a price.

14. The method of claim 12 wherein each of the second set of values represents adifferent derivative of a price.

15. A method for displaying market information relating to a tradeable object being traded at an electronic exchange having an inside market with a highest bid price and a lowest offer price, the method comprising:

15 calculating a plurality of price derivative values, wherein each of the plurality of price derivative values represents a change between a first number at a first point in time and at a second number at a second point in time;

dynamically displaying a first indicator in a location in a bid display region, the location in the bid display region corresponding to one of the plurality of price derivative

20 values, the first indicator representing quantity associated with at least one order to buy the tradeable object at the highest bid price currently available in the market; and dynamically displaying a second indicator in a location in an ask display region,

the location in the ask display region corresponding to one of the plurality of price

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derivative values, the second indicator representing quantity associated with at least one order to sell the tradeable object at the lowest ask price currently available in the market.

16. The method of claim 15 wherein the first number represents a particular value of
5 interest and the first point in time represents a designated time of interest.

17. The method of claim 16 wherein the first number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value.

10 18. The method of claim 16 wherein the particular value of interest is input through a graphical user interface.

19. The method of claim 15 wherein the second number represents a second particular value of interest and the second point in time represents a second designated time of interest.

20. The method of claim 19 wherein the second number represents a last traded price, a settlement price, a last bid price, a last ask price, a yield value, or a profit and loss value.

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21. The method of claim 19 wherein the second particular value of interest is input through a graphical user interface.

22. The method of claim 15 wherein the plurality of price derivative values in the bid and ask display regions are positioned along a static value axis.

23. The method of claim 22 wherein the bid and ask display regions are displayed in relation to fixed derivative of price values positioned along the static value axis such that

5 when the inside market changes, the derivative of price values along the static value 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 static value axis.

24. The method of claim 22 further comprising receiving a recentering command toapproximately center the first and second indicators in the bid and ask display regions.

25. The method of claim 22 further comprising displaying an order entry region comprising a plurality of locations for receiving commands to send trade orders, each location corresponding to a derivative of price value along the static value axis, and in

15 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 tradeable object and sending the trade order to the electronic exchange.

26. The method of claim 15 wherein the plurality of price derivative values are20 represented by numbers.

27. The method of claim 15 wherein the plurality of price derivative values are represented graphically.

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## ABSTRACT

Market data, such as order information, is displayed in relation to a derivative of price. A derivative of price refers to anything that bears some relationship to price, examples of which, include net change, yield, profit and loss, volatility, momentum

5 indicators, and more. According to various aspects of the preferred embodiments, market data is received from one or more electronic exchanges and a value axis is generated based on a user's preferences. Then, market data can be displayed in relation to the value axis to provide a user interface that allows a trader to view the market from a more desirable perspective.

10

 $\mathcal{D}_{i} = \mathcal{D}_{i}$ 

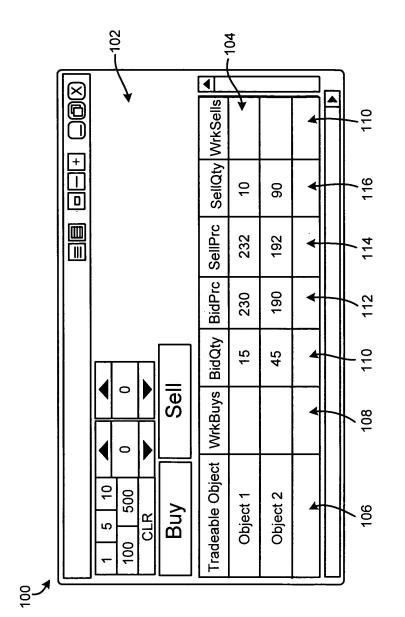
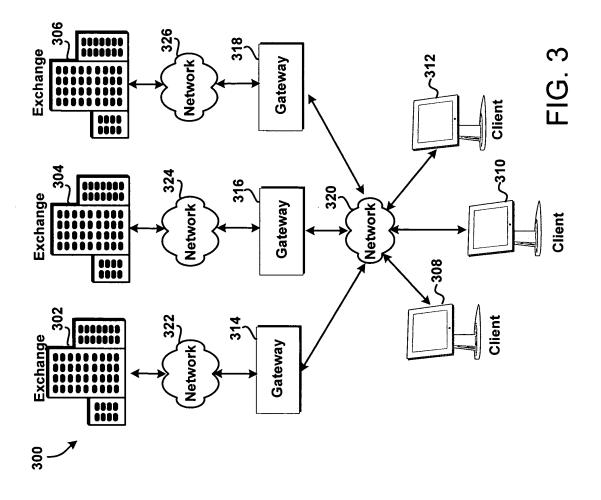


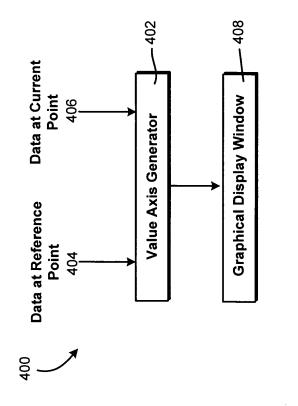
FIG. 1 Prior Art

240

# FIG. 2 Prior Art

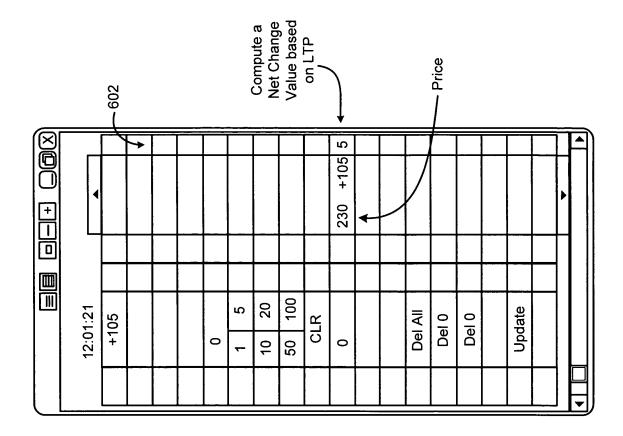
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XOC + III	Price Derivative	Price	X Net Change	<ul> <li>Previous Settlement</li> <li>10 ▼ Days</li> <li>Price ▼ Value</li> <li>0 ▼ Hour</li> </ul>	0 ▼ Minutes 0 ▼ Seconds	□ P/L □ Yield	<ul> <li>Hours</li> <li>Minutes</li> <li>Browse Formulas</li> </ul>	Volitility Momentum Formula Entry	
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FIG. 5



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+106	239     +114       238     +113       238     +113       235     +111       235     +110       235     +110       235     +110       235     +100       235     +100       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106	239     +114       238     +114       238     +113       235     +111       235     +111       235     +110       235     +110       235     +100       235     +100       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       233     +106       234     +106       232     +107       233     +106       234     +106       232     +106       233     +106       234     +106       232     +106       232     +103       229     +103       229     +103	239     +114       238     +113       238     +113       237     +112       235     +111       235     +110       235     +110       235     +110       235     +110       235     +100       235     +100       233     +106       233     +106       233     +106       233     +106       231     +106       232     +107       233     +106       231     +106       232     +107       233     +106       231     +106       232     +107       233     +106       231     +106       232     +103       233     +103       234     +102       227     +102       227     +102	239     +114       238     +114       237     +112       235     +111       235     +111       235     +111       235     +110       235     +110       234     +100       233     +100       233     +100       233     +100       233     +100       233     +100       233     +101       223     +101       223     +101       223     +101       220     +101       221     +101       222     +101       226     +101	239     +114       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FIG. 9

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FIG. 10

Case No.:



## DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

## A SYSTEM AND METHOD FOR DISPLAYING ORDER INFORMATION IN RELATION TO A DERIVATIVE OF PRICE

the specification of which is attached hereto unless the following space is checked:

was filed on as United States Application Serial Number

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56, which became available before the filing date of the prior application and the national or PCT international filing date of this application.

Application Number Filing Date

Status: patented, pending, abandoned

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below: Application Number Filing Date

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: 039310 Principal attorney or agent: Matthew J. Sampson Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

MCDONNELL BOEHNEN HULBERT & BERGHOFF 300 SOUTH WACKER DRIVE CHICAGO, ILLINOIS 60606 TELEPHONE (312) 913-0001 - 1 of 2 -

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Date: 3/10/2004

3/10/2004 Date:

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Post Office Address: 803 Bonifant Street, Silver Springs, MD 20910

( 10/2004 Date

- 2 of 2 -

# **Application Data Sheet**

# Application Information

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	Application Type::	Regular	
	Subject Matter::	Utility	
	Suggested Classification::		
	Suggested Group Art Unit::		
	CD-Rom or CD-R?	No	
	Title::	A System and Method for	Displaying
		Order Information in Relat	tion to a
		Derivative of Price	
	Attorney Docket Number::	04-225	
	Request for Early Publication?::	No	
	Request for Non-Publication?::	Yes	
	Suggested Drawing Figure::		
	Total Drawing Sheets::	10	
•	Small Entity::	Yes	
	Petition Included?::	No	
	Secrecy Order in Parent Appl.?::		
	Applicant Information		
	Applicant Authority type::	Inventor	
	Primary Citizenship Country::	US	
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		1	Initial March 12, 2004

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Postal or Zip Code of mailing address::	60612
Postal or Zip Code of mailing address:: Applicant Authority type::	60612 Inventor
Applicant Authority type::	Inventor
Applicant Authority type:: Primary Citizenship Country::	Inventor
Applicant Authority type:: Primary Citizenship Country:: Status::	Inventor US
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name::	Inventor US Fred
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name:: Family Name::	Inventor US Fred Monroe
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name:: Family Name:: City of Residence::	Inventor US Fred Monroe Silver Springs
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name:: Family Name:: City of Residence:: State of Residence::	Inventor US Fred Monroe Silver Springs MD
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name:: Family Name:: City of Residence:: State of Residence:: Country of Residence::	Inventor US Fred Monroe Silver Springs MD US
Applicant Authority type:: Primary Citizenship Country:: Status:: Given Name:: Family Name:: City of Residence:: State of Residence:: Country of Residence:: Street of mailing address::	Inventor US Fred Monroe Silver Springs MD US 803 Bonifant Stree

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Initial March 12, 2004

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# Representative Information

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Representative Customer Number::	039310

# **Domestic Priority Information**

Application::	Continuity Type::	Parent Application::	Parent Filing Date::

# Foreign Priority Information

Country::	Application Number::	Filing Date::	Priority Claimed::
		· · · · · · · · · · · · · · · · · · ·	

## **Assignee Information**

Assignee Name:: Trading Technologies International, Inc.

# Initial March 12, 2004

# PATENT APPLICATION SERIAL NO. \_

# U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEE RECORD SHEET

03/17/2004 HLE333	00000031	10800295
01 FC:2001 02 FC:2202		385.00 OP 63.00 OP

PTO-1556 (5/87)

U.S. Government Printing Office: 2001 - 481-697/59173

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		CLAIMS REMAINING AFTER AMENDMENT		HIGHE NUMBI PREVIOL PAID F	ST ER JSLY	PRESENT		RATE	ADDI- TIONAL FEE	] [	RATE	ADDI- TIONAL FEE
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										OR	+290= TOTAL	<b>`</b>
		(Column 1)			•	<i>(</i> <b>0</b> <i>)</i>	AD	TOTAL DIT. FEE		OR	DDIT. FEE	
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