PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3620065

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOHN VACCARO	10/08/2015
MICHAEL LAZAREV	10/18/2015
MICHAEL CHAPMAN	10/19/2015

RECEIVING PARTY DATA

Name:	NASDAQ, INC.
Street Address:	ONE LIBERTY PLAZA
Internal Address:	165 BROADWAY
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10006

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14840820

CORRESPONDENCE DATA

Fax Number: (703)816-4100

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 703-816-4000

Email: vyunker@nixonvan.com **Correspondent Name:** NIXON & VANDERHYE P.C.

Address Line 1: 901 N. GLEBE ROAD

Address Line 2: SUITE 1100

Address Line 4: ARLINGTON, VIRGINIA 22203-1808

ATTORNEY DOCKET NUMBER:	SJP-4010-314
NAME OF SUBMITTER:	STEPHEN J. PACHOL
SIGNATURE:	/Stephen J. Pachol/
DATE SIGNED:	11/17/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).
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Total Attachments: 3

PATENT REEL: 037063 FRAME: 0441

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> PATENT REEL: 037063 FRAME: 0442

Doc code: Oath Document Description: Oath or declaration filed

Attorney Docket Number SJP-4010-314

	First Named Inventor	CHAPMAN, Michael
INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OR USING AN APPLICATION DATA SHE		ICATION (37 CFR 1.63)
Declaration Submitted With Initial Filing OR	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Declaration Submitted After Initial Filing (surcharge (37 C.F.R. § 1.1	6(f)) required)	
CUSTOMIZABLE MACRO-BASED ORDER ENTRY PI	ROTOCOL AND SYSTEM	<u> </u>
(Title of the Invention)		
As a below named inventor, I hereby declare that:		
This declaration is directed to: ☐ the attached application, or ☐ United States Application Number 14/840,820 filed August 31, 2015 ☐ PCT International application number filed on .	, or	
The above-identified application was made or authorized to be made by me.		
I believe I am the original inventor or an original joint inventor of a claimed inven	tion in the application.	
I hereby acknowledge that any willful false statement made in this declaration is by fine or imprisonment of not more than five (5) years, or both.	punishable under 18 U.S.C.	1001
WHEREAS, the undersigned (hereinafter ASSIGNOR), has made an invention i	n the Application identified a	bove.
WHEREAS, Nasdaq, Inc. (hereinafter ASSIGNEE), a corporation of the State of Liberty Plaza, 165 Broadway, New York, New York United States 10006, is desi		
NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and/or other good of which are hereby acknowledged, the said ASSIGNOR by these presents here ASSIGNEE, its successors, assigns, and legal representatives, ASSIGNOR'S e America and all foreign countries, in and to the invention as described in the afo subsequent applications based thereon including any and all continuations, divis all resulting patents, together with the right of priority under the International Col American Convention Relating to Patents, Designs and Industrial Models, and a States of America adheres, and the ASSIGNOR hereby authorizes and requests said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented ASSIGNEE with respect to this invention;	eby sells, assigns, and transf ntire right, title and interest in presaid application, and to the sions, reissues, and substitut invention for the Protection of any other international agreer is the Commissioner of Paten assigns, and legal represen	fers unto the said in the United States of the said application and to all tes of said application, and if Industrial Property, Inter- ments to which the United ints and Trademarks to issue itatives. It is understood and
ASSIGNOR hereby agrees to transfer a like interest upon request of said ASSIC representatives, and without further remuneration, in and to any improvements, of or related to the said invention;		
ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its successor to ASSIGNEE'S full protection and title in and to the invention hereby transferred		entatives, deemed essential
ASSIGNOR hereby agrees, upon request of ASSIGNEE, and without further rer ASSIGNEE, for the filing and granting of foreign applications and the perfecting		
AGREED and executed as noted below:		
LEGAL NAME OF INVENTOR/JOINT INVENTOR: (E.g., Given Name (first and middle (if any)) and Family Name or Surname)		
Michael	(CHAPMAN
Inventor's Signature:	Date: 10/19/2015	
Witnessed by:		
Name:		
Signature of witness:	Date: 10/19/2015	

Doc code: Oath

Document Description: Oath or declaration filed

Attorney Docket Number SJP-4010-314

First Named Inventor CHAPMAN, Michael

	First Named Inventor	CHAPMAN, Michael
INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OUT USING AN APPLICATION DATAS		LICATION (37 CFR 1.63)
Declaration Submitted With Initial Filing OR		
Declaration Submitted After Initial Filing (surcharge (37 C.F.R. §	1.16(f)) required)	:
CUSTOMIZABLE MACRO-BASED ORDER ENTRY	PROTOCOL AND SYSTE	M
(Title of the Invention)		
As a below named inventor, I hereby declare that:		
This declaration is directed to: ☐ the attached application, or ☐ United States Application Number 14/840,820 filed August 31, 20 ☐ PCT International application number filed on	15, or	
The above-identified application was made or authorized to be made by me.		
I believe I am the original inventor or an original joint inventor of a claimed in		
I hereby acknowledge that any willful false statement made in this declaration by fine or imprisonment of not more than five (5) years, or both.	is punishable under 18 U.S.(C. 1001
WHEREAS, the undersigned (hereinalter ASSIGNOR), has made an invention		3
WHEREAS, Nasdaq, Inc. (hereinafter ASSIGNEE), a corporation of the State Liberty Plaza, 165 Broadway, New York, New York United States 10006, is d	of , having an office and place lesirous of acquiring an interes	e of business at One st therein;
NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and/or other growthich are hereby acknowledged, the said ASSIGNOR by these presents he ASSIGNEE, its successors, assigns, and legal representatives, ASSIGNOR'S America and all foreign countries, in and to the invention as described in the subsequent applications based thereon including any and all continuations, drawling patents, together with the right of priority under the International American Convention Relating to Patents, Designs and Industrial Models, and States of America adheres, and the ASSIGNOR hereby authorizes and requisal Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successor agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represent ASSIGNEE with respect to this invention;	nereby sells, assigns, and tran S entire right, title and interest aforesaid application, and to t fivisions, reissues, and substit Convention for the Protection ad any other international agre ests the Commissioner of Pate ors, assigns, and legal represe ed only ASSIGNEE and will or	sfers unto the said in the United States of he said application and to all utes of said application, and of Industrial Property, Inter- ements to which the United ents and Trademarks to issue entatives. It is understood and ontinue to represent only
ASSIGNOR hereby agrees to transfer a like interest upon request of said AS representatives, and without further remuneration, in and to any improvement of or related to the said invention;	nts, and applications for patent	is based thereon, growing out
ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its succes to ASSIGNEE'S full protection and title in and to the invention hereby transfe	sors, assigns, and legal repre- irred; and	sentatives, deemed essential
ASSIGNOR hereby agrees, upon request of ASSIGNEE, and without further ASSIGNEE, for the filing and granting of foreign applications and the perfecti	remuneration, to execute any ing of title thereto in ASSIGNE	and all papers desired by E.
AGREED and executed as noted below:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
LEGAL NAME OF INVENTOR/JOINT INVENTOR: (E.g., Given Name (first and middle (if any)), and Family Name or Surname)		
Michael 1		LAZAREV
Inventor's Signature:	Date: (6	0/18/2015
Witnessed by:		
Advantage of the second of the	n 10 1	181,2015
Signature of witness: Co Co a a a a a a a a a a a a a a a a a	Date: 100 t	395 - 1 Statute - 956 - 1500

Doc code: Oath

Document Description: Oath or declaration filed

Attorney Docket Number SJP-4010-314
First Named Inventor CHAPMAN, Michael

THE NAME OF PARTY AND ASSESSED.
INVENTOR'S DECLARATION AND ASSIGNMENT FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) USING AN APPLICATION DATA SHEET (37 CFR 1.76)
Declaration Submitted With Initial Filing OR
Declaration Submitted After Initial Filing (surcharge (37 C.F.R. § 1.16(f)) required)
CUSTOMIZABLE MACRO-BASED ORDER ENTRY PROTOCOL AND SYSTEM
(Title of the Invention)
As a below named inventor, I hereby declare that:
This declaration is directed to:
the attached application, or
United States Application Number 14/840,820 filed August 31, 2015, or PCT International application number filed on
E POT International application number filed on .
The obeye identified application was reade as outborized to be made by me
The above-identified application was made or authorized to be made by me. I believe I am the original inventor or an original joint inventor of a claimed invention in the application.
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
WHEREAS, the undersigned (hereinafter ASSIGNOR), has made an invention in the Application identified above.
WHEREAS, Nasdaq, Inc. (hereinafter ASSIGNEE), a corporation of the State of , having an office and place of business at One
Liberty Plaza, 165 Broadway, New York, New York United States 10006, is desirous of acquiring an interest therein;
NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and/or other good and valuable consideration, the receipt and sufficiency
of which are hereby acknowledged, the said ASSIGNOR by these presents hereby sells, assigns, and transfers unto the said ASSIGNEE, its successors, assigns, and legal representatives, ASSIGNOR'S entire right, title and interest in the United States of
America and all foreign countries, in and to the invention as described in the aforesaid application, and to the said application and to all
subsequent applications based thereon including any and all continuations, divisions, reissues, and substitutes of said application, and
all resulting patents, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-
American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and the ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue
said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns, and legal representatives. It is understood and
agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention;
ASSIGNOR hereby agrees to transfer a like interest upon request of said ASSIGNEE, its successors, assigns, and legal representatives, and without further remuneration, in and to any improvements, and applications for patents based thereon, growing out
of or related to the said invention;
ASSIGNOR hereby agrees to execute any papers by ASSIGNEE, its successors, assigns, and legal representatives, deemed essential to ASSIGNEE'S full protection and title in and to the invention hereby transferred; and
ASSIGNOR hereby agrees, upon request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE, for the filing and granting of foreign applications and the perfecting of title thereto in ASSIGNEE.
AGREED and executed as noted below:
Legal Name of Additional Joint Inventor, if any:
(E.g., Given Name (first and middle (if any)) and Family Name or Sumame) VACCARO VACCARO
Inventor's / Date:
Signature: (0/8/2015
Wilnessed by:
Name: ANDREY ZiAOLUKha
(3-12-)
Signature of witness: Date: 10/4/20/5
Control Control

I/We acknowledge the duty to disclose information which is material to the patentability of this application as defined in 37 CFR §1.56.

PATENT REEL: 037063 FRAME: 0445