

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3677604

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SANJU VARGHESE	12/23/2015
ILIAR MANGUTOV	12/23/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	TRADING TECHNOLOGIES INTERNATIONAL, INC.
<b>Street Address:</b>	222 SOUTH RIVERSIDE PLAZA
<b>Internal Address:</b>	SUITE 1100
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14984327
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(312)476-1001
<i>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.</i>	
<b>Phone:</b>	3129130001
<b>Email:</b>	patentreporting@tradingtechnologies.com
<b>Correspondent Name:</b>	MBHB/TRADING TECHNOLOGIES
<b>Address Line 1:</b>	300 SOUTH WACKER DRIVE
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<b>Address Line 4:</b>	CHICAGO, ILLINOIS 60606
<b>ATTORNEY DOCKET NUMBER:</b>	150057US01
<b>NAME OF SUBMITTER:</b>	NICOLE E. REIFMAN
<b>SIGNATURE:</b>	/Nicole E. Reifman/
<b>DATE SIGNED:</b>	12/30/2015
<b>Total Attachments: 3</b>	
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source=15_2086_Assignment#page3.tif	

**ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR  
LETTERS PATENT OF THE UNITED STATES OF AMERICA**

As the below named inventor, I hereby declare that:

I believe that I am the original inventor or an original and joint inventor of the inventions described in an application for Letters Patent of the United States of America:

**Title: Methods and Systems to Employ Aggregated Order Quantity Modification  
Strategies**  
**Attorney Docket No.: 150057US01**

For valuable consideration received, I hereby sell, assign, and transfer to Trading Technologies International, Inc., a corporation of the State of Delaware, headquartered at 222 South Riverside Plaza, Suite 1100, Chicago, Illinois 60606 (hereinafter "TT"), as well as its successors and assigns, my entire right, title, and interest, for all countries in and to said inventions and all the rights and privileges under any and all Letters Patent that may be granted therefore, and any divisions, continuations, reissues, and extensions thereof.

I agree that, when requested, I will, without charge to TT but at its expense, sign all papers, take all rightful oaths, make all rightful declarations, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other forms of protection for said inventions in any and all countries and for vesting title thereto in TT, its successors, assigns or nominees.

I agree that I will communicate to TT or its representatives any facts known to me respecting said inventions and when requested by TT and at its expense will testify in any legal proceedings, and generally do everything possible to aid TT, its successors, assigns, and legal representatives or nominees, to obtain or enforce proper protection for said inventions in any and all countries.

I authorize and empower TT, its successors, assigns, or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in my/our name, in any and all countries, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

I hereby consent that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of TT or its successors, assigns, or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

I covenant with TT, its successors, assigns, legal representatives, and nominees, that, to the best of my knowledge, the right, title, and interest herein conveyed by me are free and clear of any encumbrance, and that I have the full right to convey the same as herein expressed.

This Agreement and Assignment supersedes all other assignments, agreements, and addendums related to the above-identified application.

WITNESS my hand and seal this 23 day of Dec, 2015.

Sanju Varghese  
Sanju VARGHESE

**NOTARY:**

State of Illinois

County of Cook

The foregoing instrument was acknowledged before me this 23 day of December, 2015 by

Sanju VARGHESE.

Jill Fitzpatrick  
NOTARY PUBLIC

OR



**WITNESS:**

**WITNESS 1:**

I, \_\_\_\_\_, do hereby witness and attest that \_\_\_\_\_  
[First Middle LAST]

executed this Assignment document in my presence of his own free and voluntary will on this day for the uses and purposes set forth herein.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**WITNESS 2:**

I, \_\_\_\_\_, do hereby witness and attest that \_\_\_\_\_  
[First Middle LAST]

executed this Assignment document in my presence of his own free and voluntary will on this day for the uses and purposes set forth herein.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

WITNESS my hand and seal this 23 day of December, 2015.

Mangutov  
Iliar MANGUTOV

**NOTARY:**

State of Illinois

County of Cook

The foregoing instrument was acknowledged before me this 23 day of December, 2015 by

Iliar MANGUTOV.

Jill P. Fitzpatrick  
NOTARY PUBLIC

OR



**WITNESS:**

**WITNESS 1:**

I, \_\_\_\_\_, do hereby witness and attest that \_\_\_\_\_  
[First Middle LAST]

executed this Assignment document in my presence of his own free and voluntary will on this day for the uses and purposes set forth herein.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**WITNESS 2:**

I, \_\_\_\_\_, do hereby witness and attest that \_\_\_\_\_  
[First Middle LAST]

executed this Assignment document in my presence of his own free and voluntary will on this day for the uses and purposes set forth herein.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_