12/12/2018 505233276

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEPHEN A. SCHWARZ	12/28/2004
MICHAEL J. BURNS	12/28/2004

RECEIVING PARTY DATA

Name:	TRADING TECHNOLOGIES INTERNATIONAL, INC.	
Street Address:	222 SOUTH RIVERSIDE PLAZA	
Internal Address:	SUITE 1100	
City:	CHICAGO	
State/Country:	ILLINOIS	
Postal Code:	60606	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16217910

CORRESPONDENCE DATA

Fax Number: (312)476-1001

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: 312-476-1118

Email: patentreporting@tradingtechnologies.com

TRADING TECHNOLOGIES INTERNATIONAL, INC. **Correspondent Name:**

Address Line 1: 222 SOUTH RIVERSIDE PLAZA

Address Line 2: **SUITE 1100**

Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	041109US08
NAME OF SUBMITTER:	ADAM J. FAIER
SIGNATURE:	/Adam J. Faier/
DATE SIGNED:	12/12/2018

Total Attachments: 3

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> **PATENT REEL: 047757 FRAME: 0836** 505233276

ASSIGNMENT

Case No.: Serial No.:

Inventor: Stephen A. Schwarz, Michael J. Burns

Date of Execution

of Application: Filing Date:

In consideration of One Dollar (\$1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to:

Trading Technologies International, Inc., a corporation of the State of Delaware

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

SYSTEM AND METHOD FOR PROVIDING MARKET UPDATES IN AN ELECTRONIC TRADING ENVIRONMENT

and identified as:

Case No.

in the offices of MCDONNELL BOEHNEN HULBERT & BERGHOFF and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the

-1 of 3 -

undersigned if this assignment had not been made.

WITNESS my hand and seal this Clay of DEC , 20A

Stephen A. Schwarz

State of Illinois

County of Cook

The foregoing instrument was acknowledged before me this $2\xi^{+}$ day of

December, 2004 by Stephen Schnerz

NOTARY PUBLIC

"OFFICIAL SEAL"

DORIS OSHANA

NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 3/26/2005

WITNESS my hand and seal this Hay of Docube, 2004

Michael J. Burns

State of Illinois

County of COOK

The foregoing instrument was acknowledged before me this 28th day of

December, 2001 by Michael

NOTARY PUBLIC

"OFFICIAL SEAL"
DORIS OSHANA
NOTARY PUBLIC, STATE OF ILLUNOIS
MY COMMISSIGNE AFFRECT TO STATE