

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5686012

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ACQUISITION OF NYSE EURONEXT HOLDINGS, LLC, ITS SUBSIDIARIES (INCLUDING LIFFE (HOLDINGS) LIMITED) BY INTERCONTINENTAL EXCHANGE GROUP, INC. PER THE ENCLOSED CONFIRMATORY ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NYSE EURONEXT HOLDINGS, LLC	11/13/2013

RECEIVING PARTY DATA

Name:	INTERCONTINENTALEXCHANGE GROUP, INC.
Street Address:	5660 NEW NORTHSIDE DRIVE, 3RD FLOOR
City:	ATLANTA
State/Country:	GEORGIA
Postal Code:	30328

PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	7752116

CORRESPONDENCE DATA

Fax Number: (215)656-3301

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: 215-656-2446

Email: pto.phil@dlapiper.com

Correspondent Name: RICHARD L. CRUZ, DLA PIPER LLP (US)

Address Line 1: 1650 MARKET STREET, SUITE 4900

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	NLM-14-1079
NAME OF SUBMITTER:	NANCY NUNEZ
SIGNATURE:	/NN/
DATE SIGNED:	08/26/2019

Total Attachments: 11

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CONFIRMATORY ASSIGNMENT

WHEREAS, Thomas Ascher of New York, NY and David F. Harris of Ridgewood, NJ are inventors (hereafter the "Inventors") of an invention entitled LIQUIDITY ENGINE FOR FUTURES TRADING EXCHANGE (hereinafter the "Invention");

WHEREAS, the Invention was formally memorialized in a US Patent Application having Serial No. 10/283,558 ("the '558 Application"), which later became US Patent No. 7,752,116 ("the '116 Patent"), also entitled LIQUIDITY ENGINE FOR FUTURES TRADING EXCHANGE;

WHEREAS, on December 23, 2002, the Inventors assigned the Invention, together with all related patent applications (including the '558 Application) and all resulting letters patents (including the '116 Patent) to NASDAQ LIFFE MARKETS, LLC, its successors and assigns (collectively, "NASDAQ"), pursuant to a formal ASSIGNMENT (copy enclosed) recorded at reel #13655 / frame #0879 at the US Patent Office;

WHEREAS, on July 24, 2003, NASDAQ underwent a name change to NQLX LLC pursuant to a Certificate of Amendment to the Certificate of Formation of Nasdaq Liffe Markets, LLC, recorded at File No. 3398589 with the State of Delaware, Division of Corporations (copy enclosed);

WHEREAS, on October 29, 2010, NQLX LLC was merged with and into LIFFE VENTURES, INC. under the name LIFFE VENTURES, INC. pursuant to a Certificate of Merger recorded with the State of Delaware, Division of Corporations (copy enclosed);

WHEREAS, on March 26, 2013, LIFFE VENTURES, INC. was dissolved pursuant to a Certificate of Dissolution (copy enclosed), and all of its assets were transferred to LIFFE (HOLDINGS) LIMITED, a subsidiary of NYSE EURONEXT HOLDINGS, LLC;

WHEREAS, on November 13, 2013, INTERCONTINENTALEXCHANGE GROUP, INC. acquired NYSE EURONEXT HOLDINGS, LLC, its subsidiaries (including LIFFE (HOLDINGS) LIMITED) and their respective assets, including all patent applications and letters patent related to the Invention;

WHEREAS, as a result of its acquisition of NYSE EURONEXT HOLDINGS, LLC, INTERCONTINENTALEXCHANGE GROUP, INC. became and is now the sole and exclusive owner of the entire right, title and interest in the Invention and all patent applications and letters patent relating thereto, including the '558 Application and the '116 Patent; and

WHEREAS, on May 13, 2014 INTERCONTINENTALEXCHANGE GROUP, INC. changed its name to INTERCONTINENTAL EXCHANGE, INC. recorded at File No. 3246189 with the State of Delaware, Division of Corporations (copy enclosed).

WHEREAS, pursuant to a business relationship, INTERCONTINENTAL EXCHANGE, INC. desires to assign any and all rights in and to the Invention and all related patent applications

and letters patent (including the '558 Application and the '116 Patent) to its subsidiary, INTERCONTINENTAL EXCHANGE HOLDINGS, INC.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and of other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned, INTERCONTINENTAL EXCHANGE, INC., intending to be legally bound, does hereby sell, assign and transfer to INTERCONTINENTAL EXCHANGE HOLDINGS, INC. ("Assignee"), the entire right, title and interest, for the United States of America, its territories and possessions, and for all foreign countries, in and to the Invention and patent applications related thereto and all letters patent issuing therefrom, including the '558 Application the '116 Patent, and all US applications, all divisions, continuations and continuations-in-part thereof, all rights to claim priority based thereon, all rights to file foreign applications on said Invention, all letters patent, reexaminations and reissues thereof, issuing for said Invention in the United States of America and in any and all foreign countries, all rights to enforce and all rights to claim and collect any past damages.

It is agreed that the undersigned shall be legally bound, upon request of Assignee, or its successors or assigns or a legal representative thereof, to supply all information and evidence of which the undersigned has knowledge or possession, relating to the making and practice of said Invention, to testify in any legal proceeding relating thereto, to execute all instruments proper to patent the Invention in the United States of America and foreign countries in the name of Assignee, and to execute all instruments proper to carry out the intent of this instrument.

The rights and property herein conveyed by the undersigned are free and clear of any encumbrance.

EXECUTED under seal on August 9, 2019.

INTERCONTINENTAL EXCHANGE, INC.

By: 

Name: David Clifton

Title: VP, Associate General Counsel,
M&A

Attorney Docket No.: NAS02002

ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, I/we

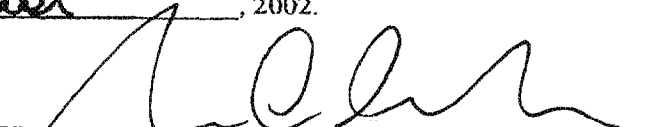
Thomas Ascher	of	New York, New York
David F. Harris	of	Ridgewood, New Jersey

hereby sell, assign and transfer to Nasdaq Liffe Markets, LLC, a Delaware corporation, having a place of business at One Liberty Place, 165 Broadway, 50th Floor, New York, New York 10006, its successors and assigns, the entire right, title and interest throughout the world in my invention in:

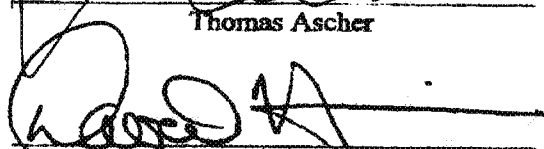
LIQUIDITY ENGINE FOR FUTURES TRADING EXCHANGE

for which I/We have executed a United States patent application on or about October 30, 2002, having serial application number 10/283,558, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; I/We authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from me; I/We agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and I/We request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

Executed this 23rd day of December, 2002.



 Thomas Ascher



 David F. Harris

**CERTIFICATE OF AMENDMENT
TO THE CERTIFICATE OF FORMATION
OF
NASDAQ LIFFE MARKETS, LLC
File No. 3398589**

The undersigned, desiring to amend the Certificate of Formation of Nasdaq LIFFE Markets, LLC, pursuant to the Delaware Limited Liability Company Act, 6 Delaware Code, Chapter 18, filed with the State of Delaware, office of the Secretary of State, on June 1, 2001 does hereby amend Article FIRST to reflect the following:

RESOLVED, that the Certificate of Formation of Nasdaq LIFFE Markets, LLC be amended by changing Article FIRST thereof so that, as amended, said Article FIRST shall be and read as follows:

“FIRST: The name of the limited liability company is NQLX LLC (the “Company”).”

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Amendment to the Certificate of Formation of Nasdaq LIFFE Markets, LLC this 24th day of July, 2003.

By: /s/ Thomas A. Ascher
Thomas A. Ascher, authorized person

60196816v3

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

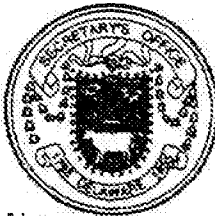
"NQLX LLC", A DELAWARE LIMITED LIABILITY COMPANY,
WITH AND INTO "LIFFE VENTURES, INC." UNDER THE NAME OF
"LIFFE VENTURES, INC.", A CORPORATION ORGANIZED AND EXISTING
UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED
IN THIS OFFICE THE TWENTY-NINTH DAY OF OCTOBER, A.D. 2010, AT
2:34 O'CLOCK P.M.

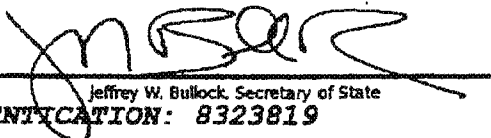
A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE
NEW CASTLE COUNTY RECORDER OF DEEDS.

3398588 8100M

101041741

You may verify this certificate online
at corp.delaware.gov/authver.shtml




Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 8323819

DATE: 11-01-10

PATENT
REEL: 050164 FRAME: 0435

State of Delaware
Secretary of State
Division of Corporations
Delivered 02:45 PM 10/29/2010
FILED 02:34 PM 10/29/2010
SRV 101041741 - 3398588 FILE

**STATE OF DELAWARE
CERTIFICATE OF MERGER OF
DOMESTIC LIMITED LIABILITY COMPANY
INTO A
DOMESTIC CORPORATION**

Pursuant to Title 8, Section 264(c) of the Delaware General Corporation Law and Title 6, Section 18-209 of the Delaware Limited Liability Company Act, the undersigned corporation executed the following Certificate of Merger:

The name of the surviving corporation is LIFFE Ventures, Inc., a Delaware Corporation, and the name of the limited liability company being merged into this surviving corporation is NQLX LLC, a Delaware limited liability company.

The Agreement of Merger has been approved, adopted, certified, executed and acknowledged by the surviving corporation and the merging limited liability company.

The name of the surviving corporation is LIFFE Ventures, Inc., a Delaware Corporation.

The Merger shall be effective upon the filing of this Certificate of Merger with the Secretary of State of the State of Delaware.

The Agreement of Merger is on file at 11 Wall Street, New York, NY 10005, the place of business of the surviving corporation.

A copy of the Agreement of Merger will be furnished by the corporation on request, without cost, to any stockholder of any constituent corporation or member of any constituent limited liability company.

The Certificate of Incorporation of the surviving corporation shall be its Certificate of Incorporation.

IN WITNESS WHEREOF, said Corporation has caused this certificate to be signed by an authorized officer, the 29th day of October, A.D., 2010.

LIFFE Ventures, Inc.

By: Janet L. McGinness
Name: Janet L. McGinness
Title: Corporate Secretary

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DISSOLUTION OF "LIFFE VENTURES, INC.", FILED IN THIS OFFICE ON THE TWENTY-SIXTH DAY OF MARCH, A.D. 2013, AT 5:31 O'CLOCK P.M.

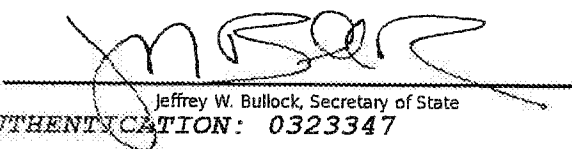
A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

3398588 8100

130362086



You may verify this certificate online
at corp.delaware.gov/authver.shtml


Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 0323347

DATE: 04-01-13

PATENT
REEL: 050164 FRAME: 0437

STATE OF DELAWARE
CERTIFICATE OF DISSOLUTION
(SECTION 275)

The corporation organized and existing under the General Corporation Law of the State of Delaware, hereby certifies as follows:

1. The dissolution of LIPFE Ventures, Inc.

has been duly authorized by the Board of Directors and Stockholders in accordance with subsections (a) and (b) of Section 275 or by unanimous consent of Stockholders in accordance with subsection (c) of Section 275 of the General Corporation Law of the State of Delaware.

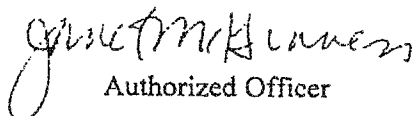
June 1, 2001

2. The date of filing of the Corporation's original Certificate of Incorporation in Delaware was

3. The date the dissolution was authorized is February 14, 2013 (for accounting purposes only)

4. The names and addresses of the directors and officers of the corporation are as follows:

NAME	TITLE	ADDRESS
Janet L. McGinness	Secretary	11 Wall Street, New York, NY 10005
Janet L. McGinness	Director	11 Wall Street, New York, NY 10005

By: 
Authorized Officer

Name: Janet L. McGinness
Print or Type

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THAT "INTERCONTINENTAL EXCHANGE, INC." IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE NOT HAVING BEEN CANCELLED OR DISSOLVED SO FAR AS THE RECORDS OF THIS OFFICE SHOW AND IS DULY AUTHORIZED TO TRANSACT BUSINESS.

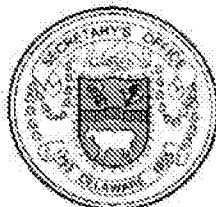
THE FOLLOWING DOCUMENTS HAVE BEEN FILED:

CERTIFICATE OF INCORPORATION, FILED THE SIXTH DAY OF MARCH, A.D. 2013, AT 5:31 O`CLOCK P.M.

RESTATED CERTIFICATE, FILED THE TWELFTH DAY OF NOVEMBER, A.D. 2013, AT 2:05 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID RESTATED CERTIFICATE IS THE TWELFTH DAY OF NOVEMBER, A.D. 2013 AT 8 O`CLOCK P.M.

CERTIFICATE OF AMENDMENT, CHANGING ITS NAME FROM "INTERCONTINENTALEXCHANGE GROUP, INC." TO "INTERCONTINENTAL EXCHANGE, INC.", FILED THE THIRTIETH DAY OF MAY, A.D. 2014, AT 11:49 O`CLOCK A.M.




Jeffrey W. Bullock, Secretary of State

5298907 8310

SR# 20185993427

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 203182089

Date: 08-03-18

PATENT
REEL: 050164 FRAME: 0439

Delaware

The First State

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE SECOND DAY OF JUNE, A.D. 2014 AT 8 O'CLOCK A.M.

RESTATED CERTIFICATE, FILED THE TWENTY-SECOND DAY OF MAY, A.D. 2015, AT 7:17 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID RESTATED CERTIFICATE IS THE TWENTY-SECOND DAY OF MAY, A.D. 2015 AT 9 O'CLOCK A.M.

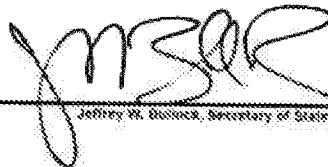
RESTATED CERTIFICATE, FILED THE TWELFTH DAY OF OCTOBER, A.D. 2016, AT 10:24 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID RESTATED CERTIFICATE IS THE TWELFTH DAY OF OCTOBER, A.D. 2016 AT 12 O'CLOCK P.M.

RESTATED CERTIFICATE, FILED THE TWENTY-FIFTH DAY OF MAY, A.D. 2017, AT 3:35 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID RESTATED CERTIFICATE IS THE TWENTY-FIFTH DAY OF MAY, A.D. 2017 AT 5 O'CLOCK P.M.




Jeffrey W. Bullock, Secretary of State

5298907 8310

SR# 20185993427

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 203182089

Date: 08-03-18

Delaware

Page 3

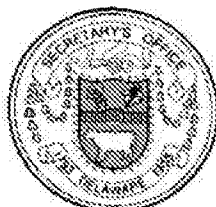
The First State

CERTIFICATE OF CHANGE OF REGISTERED AGENT, FILED THE NINETEENTH
DAY OF SEPTEMBER, A.D. 2017, AT 12:48 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID
CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE
AFORESAID CORPORATION, "INTERCONTINENTAL EXCHANGE, INC."

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL REPORTS HAVE
BEEN FILED TO DATE.

AND I DO HEREBY FURTHER CERTIFY THAT THE FRANCHISE TAXES
HAVE BEEN PAID TO DATE.



5298907 8310

SR# 20185993427

You may verify this certificate online at corp.delaware.gov/authver.shtml

A handwritten signature in black ink, appearing to read "J. Dutton", written over a horizontal line. Below the line, the text "Jeffrey W. Dutton, Secretary of State" is printed in a small font.

Authentication: 203182089

Date: 08-03-18