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Date:	January 6, 2012
To:	ALL PARTICIPANTS
Attention:	MANAGING PARTNER/OFFICER; OPERATIONS PARTNER/OFFICER; MANAGER P&S DEPARTMENT; MANAGER DATA PROCESSING; CASHIER
From:	Product Management, Equities Clearance
Subject:	DTCC TRADE RISK PRO SM -- RULE FILING APPROVAL AND SERVICE INTRODUCTION

On Tuesday, January 3, 2012, the U.S. Securities and Exchange Commission approved National Securities Clearing Corporation (“NSCC”) rule filing SR-NSCC-2011-10 for the implementation of DTCC Trade Risk ProSM. NSCC expects to implement the service for all Members in March, 2012 on a date to be announced.

Trade Risk Pro will provide an additional tool to allow Members to monitor the intra-day exposure of their correspondents, clients and their own equity trading desks. The system will provide Members with near real time post trade information in a centralized and standardized method, reporting aggregate and net value and share exposure for equity¹ transactions within seconds of NSCC’s receipt of a trade record. NSCC, in its role as the central counterparty for the US equities market, will leverage trade submissions and position offsets from exchanges and other liquidity destinations to report this information to its Members.

An Important Notice with actual launch dates will be distributed by February 15, 2012. From launch to June 30, 2012, the service will be available to all NSCC members at no charge. Subsequently, subject to regulatory approval, an Important Notice with the fee schedule will be distributed by May 31, 2012.

¹ Including Corporate and Municipal Bonds, and Unit Investment Trusts

Non-Confidential

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Trade Risk Pro Introduction

This Important Notice gives Members a preview of how to use the new service and details on new input and output record layouts. Members are encouraged to visit the DTCC Learning Center “[Welcome to DTCC Trade Risk Pro](#)” for complete details, including a section on connecting to and accessing the service.

Service Overview

Members create “Risk Entities” to track activity for specific correspondents and clients, as well as their own trading desks. The rules for the aggregation of trade data and limits on open positions are set within each Risk Entity². Risk Entities are comprised of Trade Arrays and may be organized into Categories.

The Risk Entity definitions entered by Members drive position calculations and displays in Trade Risk Pro. Trade Risk Pro provides Members with a web-based facility to set and update share and dollar limits with respect to each Risk Entity at a gross, adjusted and net level.

Trade Risk Pro provides a variety of ways for the User to inquire about and monitor Member positions. Trade Risk Pro nets, aggregates and displays position information for purposes of limit monitoring. If positions near or exceed the established warning thresholds and limits, Trade Risk Pro notifies the User via screen Alerts.

The display gives the User the ability to see exposure at the CUSIP and individual trade levels. Trade Risk Pro is a reporting service only and any action by a Member as a result of any alerts, parameter breaks, or other information associated with the service would be at the discretion of the Member and not, nor imply that any such action was effected, either in whole or part, by, NSCC.

In the next section, Trade Risk Pro Details, the following topics are covered:

- Receiving Trades
- Submitting Start of Day Positions
- Understanding Trade Arrays, Risk Entities and Categories
- Setting up Risk Entities
- Viewing Risk Entities
- Monitoring Positions
- Viewing Alerts
- Processing End of Day

² Members can input limits into the Trade Risk Pro interface in order to receive system alerts in the event of a breach; however, these limits do not trigger a block by NSCC on any activity processed through NSCC’s clearance and settlement systems.

Trade Risk Pro Details

Receiving Trade Date Data

Trades and position offsets submitted for clearance to NSCC through NSCC's Universal Trade Capture ("UTC") and/or Real-Time Trade Matching ("RTTM") systems are the data sources for Trade Risk Pro. Equity, municipal and corporate executions from all US exchanges and other trading centers such as ECNs and Dark Pools are incorporated. Within Trade Risk Pro, positions are carried at contract value.

In addition to the trades coming in from the various markets, the service allows Members to input or load start of day and/or intra-day positions.

Submitting Start of Day Positions

Members have the option of submitting start of day positions to Trade Risk Pro, via either file submission or the web interface. The start of day position will typically be unsettled trades from T1 through T3, fails and may include other open positions. Trade Risk Pro accepts position input from 4 a.m. to 9 p.m. daily. Once positions are input and accepted into Trade Risk Pro, they may be exported to Excel on an intra-day basis from the Position Inquiry Screen.

The current exposure is the sum of Start of Day and Trade Date Data (i.e. UTC and RTTM data from today's Process Date) and is further detailed in the [Monitoring Positions](#) and [Viewing Alerts](#) sections below.

See the relevant attachment for the record layout for Start of Day Position Input:

Datatrak ID#	Report Name	Layout
21878	Position Input File	See Attachment A

There is also Machine Readable Output ("MRO") for Position Rejects. This MRO shows rejected positions and error codes for Member submitted positions using the Start of Day Position input file.

AutoRoute ID#	Canned Test AutoRoute ID#	Report Name	Layout
02181084	02991084	Participant Position Rejects MRO	See Attachment B

Understanding Trade Arrays, Risk Entities and Categories

Risk Entities are User-defined so that only trades and positions that the Member intends to belong to that Risk Entity are included through the use of Trade Arrays. For each trade, relevant data elements to create a Trade Array are taken directly from UTC and include: (1) Clearing Broker (2) Executing Broker, (3) Submitting Market / Firm, and (4) Account Number³.

³ A unique identifier assigned by the broker that is carried forward to the clearing record. This identifier is available on the UTC formats as FIX Tag 1.

Members may organize their Risk Entities into Categories. Organizing Risk Entities into Categories allows the User to group related Risk Entities. This is done by first creating the Category and then selecting the Category on the Add/Update Risk Entity screen.

Trade Risk Pro’s hierarchy of Category (example “My Top 5”), Risk Entity and Trade Array



Starting with Trade Arrays as the building blocks of Trade Risk Pro, Members can leverage their UTC trade output to create their relevant Trade Arrays. Details on where to find Trade Array details are provided below.

AutoRoute ID#	Report Type	Report Name	Layout
N/A	Message	UTC Fix Output	See UTC Fix Output
02081673	UTC MRO	UTC Contract MRO	See Intraday MRO
02063127	Legacy MRO	Correspondent Clearing Intra-Day MRO	See Intraday MRO
02023183	Legacy MRO	OTC Locked-In Intra-Day MRO	See Intraday MRO
02013036	Legacy MRO	NYSE Intra-Day MRO	See Intraday MRO
02143125	Legacy MRO	RIO Intra-Day MRO (Regional)	See Intraday MRO

Field information from the UTC format for building Trade Arrays can be found below.

TRADE CAPTURE DATA (Detail)								
Trade Array Details from UTC Trade Capture Record								
FIX TAG NO.	DESCRIPTION	LENGTH (MAX)	START	END	TYPE	FIX TYPE	UTC FIX VALUES	LEGACY MRO VALUES
448	Clearing Broker	8	248	255	A/N	String	NSCC Participant Number	NSCC Participant Number (Position 9-12)
452	Party Role	2			N	Int	04= Clearing Firm	N/A – New Field in UTC
448	Entering / Executing Broker	8	256	263	A/N	String	Market Mnemonic / MPID	Executing Broker (Position 28-31) Entering Broker (Position 47-50)
452	Party Role	2			N	Int	01= Executing Firm	N/A – New Field in UTC
30	Market ⁴ (Last Mkt)	3	58	60	A/N	Exchange	See Formats for values	Originating Market (Position 105 – 108)

⁴ When Submitting Market is 060=Over the Counter, the Submitting Firm field will define the party (9A) submitting the locked-in QSR transaction.

TRADE CAPTURE DATA (Detail)								
Trade Array Details from UTC Trade Capture Record								
FIX TAG No.	DESCRIPTION	LENGTH (MAX)	START	END	TYPE	FIX TYPE	UTC FIX VALUES	LEGACY MRO VALUES
1	Account Number	32	313	344	A/N	String	Client's Account Number	N/A – New Field in UTC

The Trade Array MRO provides Members with the Trade Arrays associated with their Risk Entity definitions. This may be used to confirm that the correct trades are being associated with the right Risk Entities.

The Trade Array Audit Trail MRO provides Members with details of changes to Trade Array definitions, supporting research into changed records.

See the relevant attachments for the record layouts:

AutoRoute ID#	Canned Test AutoRoute ID#	Report Name	Layout
02181080	02291080	Trade Array MRO	See Attachment C
02181083	02291083	Trade Array Audit Trail MRO	See Attachment D

Setting Up Risk Entities

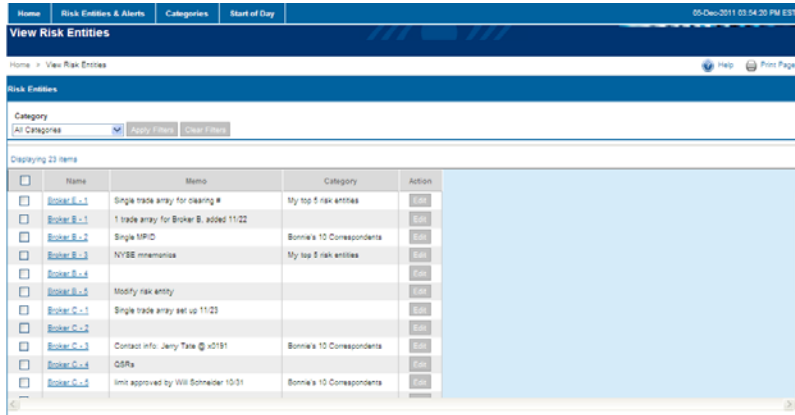
The “Add Risk Entity” screen is where Risk Entities are created, limits are established and Trade Arrays defined. New Risk Entities and updates to existing Risk Entity definitions take effect overnight. One exception is that updates to limits take effect upon acceptance by the system. [Position and Limit Definitions](#) are found in the Viewing Alerts section below.

Trade Risk Pro’s “Add Risk Entity” Screen

Viewing Risk Entities

The “View Risk Entities” screen is where the User can view the Member’s Risk Entities and navigate to positions. From this screen, Users can also update and delete a Risk Entity using the “Edit” button.

Trade Risk Pro’s “View Risk Entities” Screen



The Risk Entity MRO provides Members with the description, limits, and end of day positions for each of their Risk Entities. This may be useful for periodic management reporting, credit analysis and reviews and time series analyses.

The Risk Entity Audit Trail MRO provides Members with details of changes to Risk Entity definitions, supporting research into updated records.

See the relevant attachments for the record layouts:

AutoRoute ID#	Canned Test AutoRoute ID#	Report Name	Layout
02181079	02291079	Risk Entity MRO	See Attachment E
02181082	02291082	Risk Entity Audit Trail MRO	See Attachment F

Monitoring Positions

There are many ways to view Risk Entities’ data. From the “View Positions by Risk Entities” screen, the User can drill into the positions by Trade Array, CUSIP and Trades. Each of these levels offers a facility to download to Excel. [Position and Limit Definitions](#) are found in the Viewing Alerts section.

Trade Risk Pro's "View Positions by Risk Entities" screen

Name	Limits	Buy Qty	Sell Qty	Credit Contract Amt	Debit Contract Amt	Net Amt	Adj Credit Contract Amt
Tabasco LLC	Details	4,132,725	(1,837,456)	\$20,588,258.35	\$(27,582,938.41)	\$(6,996,678.06)	\$12,248.84
OSR 9995	Details	489,770	(604,771)	\$23,607,435.03	\$(21,384,294.16)	\$2,223,140.87	\$17,059.40
Fayetteville Corp	Details	3,121,825	(1,836,456)	\$20,538,976.35	\$(18,105,268.41)	\$2,433,707.94	\$12,201.56
Pure to Trade Ltd	Details	308	(35,980)	\$749,360.74	\$(16,388.68)	\$732,972.06	\$749.36
Capital Markets Desk PG	Details	18,346,997	(23,982,099)	\$221,043,819.40	\$(256,502,736.12)	\$(35,458,916.72)	\$126,181.61

Viewing Alerts

During the [Setting up Risk Entities](#) process, Users have the ability to establish limits for each Risk Entity. There are eight defined limits, all are optional. Users can also set a warning threshold percentage to trigger an Alert prior to an actual breach of a limit. The User is notified a limit has been breached or near breach by screen changes. The service also provides updated information when the Alert is resolved.

Trade Risk Pro's "View Alerts" screen

Start Time	End Time	Risk Entity	Category	Level	Details	Limits	Men
11:35:28 AM		Broker E - 1	My top 5 risk entities	Warning	Sell Quantity is within 60% of 1,750,000	Details	Enter
11:35:28 AM		Broker E - 1	My top 5 risk entities	Warning	Buy Quantity is within 60% of 1,000,000	Details	Enter
11:22:06 AM		Broker B - 2	Ray's risk entity list	Error	Net Credit Contract Amount has exceeded the limit of \$3,000,000	Details	Enter
10:59:20 AM		Broker C - 4		Warning	Debit Contract Amount is within 50% of \$250,000,000	Details	Enter
10:58:58 AM		Broker F - 1		Warning	Debit Contract Amount is within 50% of \$250,000,000	Details	Enter
10:10:46 AM		Broker B - 1	My top 5 risk entities	Error	Adjusted Debt Contract Amount has exceeded the limit of \$600,000,000	Details	Enter
10:02:15 AM		Broker B - 1	My top 5 risk entities	Error	Adjusted Credit Contract Amount has exceeded the limit of \$600,000,000	Details	Enter
09:34:15 AM		Broker D - 5	My top 5 risk entities	Error	Credit Contract Amount has exceeded the limit of \$200,000,000	Details	Enter
09:32:00 AM		Broker B - 1	My top 5 risk entities	Error	Buy Quantity has exceeded the limit of 60,000,000	Details	Enter

This table contains the descriptions for the eight different types of limits and positions

Position and Limit Definitions	
Sell Quantity	Total number of shares sold (shown as a negative number)
Sell Quantity Limit	Maximum total shares to be sold at any point in time
Credit Contract Amount	Sell Quantity * Execution Price in dollars
Credit Contract Amount Limit	Maximum dollar Credit that the Risk Entity is to carry at any one time
Buy Quantity	Total number of shares bought
Buy Quantity Limit	Maximum total shares to be bought at any point in time
Debit Contract Amount	Buy Quantity * Execution Price in dollars

Debit Contract Amount Limit	Maximum dollar Debit that the Risk Entity is to carry at any one time
Adjusted Credit Contract Amount	Sum of all credits net of debits within same CUSIP <ol style="list-style-type: none"> Using the entire set of credits and debits within the Risk Entity, identify instances where there is a debit and a credit for the same CUSIP Net the debit vs. credit. Keep any remaining credit. Sum up all the credits including the remainders calculated in Step 2.
Adjusted Credit Contract Amount Limit	Maximum Adjusted dollar Credit that the Risk Entity is to carry at any one time
Adjusted Debit Contract Amount	Sum of all debits net of credits within same CUSIP <ol style="list-style-type: none"> Using the entire set of credits and debits within the Risk Entity, identify instances where there is a debit and a credit for the same CUSIP Net the debit vs. credit. Keep any remaining debit Sum up all the debits including the remainders calculated in Step 2.
Adjusted Debit Contract Amount Limit	Maximum Adjusted dollar Debit that the Risk Entity is to carry at any one time
Net Credit (Debit) Amount	Credit Contract Amount + Debit Contract Amount in dollar (assumes debit is shown as negative)
Net Credit Amount Limit	Maximum permitted Net Credit dollar amount that the Risk Entity is to carry at any one time
Net Debit Amount Limit	Maximum permitted Net Debit dollar amount that the Risk Entity is to carry at any one time

The Alert History MRO provides Members with all Alerts generated for their Risk Entities during the day. These may be accumulated by the Member for trend analyses.

See the relevant attachment for the record layout:

AutoRoute ID#	Canned Test AutoRoute ID#	Report Name	Layout
02181081	02291081	Alert History MRO	See Attachment G

Processing End of Day

When all markets are closed, UTC sends a final Good Night message to Members and to downstream systems indicating UTC is closed for this processing day. When Trade Risk Pro receives this message, its overnight processing begins. This includes:

- Processing Risk Entity Adds and Updates
- Refreshing Positions⁵
- Sending End of Day Reports

This MRO provides Member Positions first by Trade Array, then CUSIP.

See the relevant attachment for the record layout:

AutoRoute ID#	Canned Test AutoRoute ID#	Report Name	Layout
02181085	02291085	EOD Participant Positions MRO	See Attachment H

⁵ This step is performed to empty the Trade Risk Pro database and start each day with zero positions

Additional Information

Please visit the Trade Risk Pro Learning Center at [Welcome to DTCC Trade Risk Pro](#) to view the Trade Risk Pro record formats, User guide and learn more about the service.

To obtain test and product logins and for other registration information, see [Connect to and Access Trade Risk Pro](#) in the Trade Risk Pro Learning Center.

If you have any questions or need additional support in accessing the Trade Risk Pro web page, please call or email the DTCC Training Administrator at 888-258-6393, training_administrator@dtcc.com.

Testing of position input and canned output can be arranged after January 20, 2012 through the Enterprise Service Center at 1-888-372-2721, option 5, option 1.

For questions about the Trade Risk application or this Important Notice, please contact your Relationship Manager or email the undersigned at bbowes@dtcc.com.

Bonnie Bowes
Product Management, Equities Clearance

Trade Risk Pro Record Formats

- Start of Day Position Input

DATATRAK ID#	Report Name	Layout
21878	Position Input File	See Attachment A

- End of Day Reports

AutoRoute ID#	Canned Test AutoRoute ID#⁶	Report Name	Layout
02181084	02291084	Participant Position Rejects MRO	See Attachment B
02181080	02291080	Trade Array MRO	See Attachment C
02181083	02291083	Trade Array Audit Trail MRO	See Attachment D
02181079	02291079	Risk Entity MRO	See Attachment E
02181082	02291082	Risk Entity Audit Trail MRO	See Attachment F
02181085	02291085	Alert MRO	See Attachment G
02181081	02291081	EOD Participant Positions MRO	See Attachment H

⁶ Available January 20, 2012

**Attachment A
Trade Risk Pro - PTM Positions Input File**

Start of Day Position

This input file may be used by Members to submit positions from 4 a.m. to 9 p.m. daily. These positions will be incorporated into Trade Risk Pro in addition to the trades coming from UTC and RTTM.

Trade Risk Pro - PTM Positions Input File CDTS Product ID: 21878 Detail Record					
FIELDNAME	POSITIONS	LENGTH	TYPE	Comments	Required Y/N?
Process Date	1-8	8	A/N	Format = CCYYMMDD	Y
Buy/Sell Indicator	9	1	A/N	Values: 'B' or 'S'	Y
Clearing Broker ID	10-17	8	A/N	Left Justified space filled	Y
Executing Broker ID	18-25	8	NUM	Format will be 99999999. Right justified 0 filled.	Y
Submitting Market ID	26-28	3	NUM	Format will be 999. Required. Right justified 0 filled.	Y
Submitting Firm ID	29-36	8	A/N	May be present only if Submitting Market ID = '060' (OTC), used for QSR. (Format will be 99999999). Right justified 0 filled. Otherwise populate with spaces.	N
Account	37-68	32	A/N	Optional. May be client or proprietary account or other identifier.	N
Security ISIN	69-80	12	A/N	Aka "CUSIP". 9 or 12 characters. When 9 - start from first byte.	Y
Trade Quantity	81-95	15	NUM	Format will be 999999999999999. Right justified 0 filled.	Y
Contract Amount	96-112	17	NUM	Format will be 999999999999999.99 with an assumed decimal point before the last two numbers.	Y
Filler	113	102	A/N	Value = Spaces	Y

Attachment B
Trade Risk Pro - Participant Position Rejects MRO File

Participant Position Rejects MRO

This MRO shows rejected positions and error codes for Member submitted positions using the Start of Day Position input file.

Trade Risk Pro - Participant Position Rejects MRO File			
CDTS Product ID: 02181084			
Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	292	A/N	Value = Spaces

Trade Risk Pro - Participant Position Rejects MRO File			
CDTS Product ID: 02181084			
Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Buy/Sell Indicator	1	A/N	Value = 'B' or 'S'
Clearing Broker ID	8	A/N	Format will be 99999999.
Executing Broker ID	8	A/N	
Submitting Market ID	3	A/N	Format will be 999
Submitting Firm ID	8	A/N	Format will be 99999999 when Submitting Market ID = '060'.
Account	32	A/N	
Security ISIN	12	A/N	9 or 12 characters
Trade Quantity	15	NUM	Format will be 999999999999999.
Contract Amount	17	NUM	Format will be 999999999999999.99 with an assumed decimal point before the last two numbers.

Attachment B
Trade Risk Pro - Participant Position Rejects MRO File

Trade Risk Pro - Participant Position Rejects MRO File			
CDTS Product ID: 02181084			
Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Error Code	2	A/N	Values: '01' = Invalid Process Date '02' = Invalid Buy/Sell Indicator '03' = Invalid Clearing Broker '04' - Invalid Executing Broker '05' - Invalid Submitting Market '06' - Invalid Submitting Firm '07' - Invalid UTC account '08' - Invalid Security ISIN '09' - Invalid Trade Quantity '10' - Invalid Contract Amount '11' - Invalid Quantity
Error Message	100	A/N	
Filler	86	A/N	Value = Spaces

**Attachment C
Trade Risk Pro – Trade Array MRO File**

Trade Array MRO

Provides Members with the Trade Arrays associated with their Risk Entity definitions. This may be used to confirm that the correct trades are being associated with the right Risk Entities.

Trade Risk Pro - Trade Array MRO File CDTS Product ID: 02181080 Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	294	A/N	Value = Spaces

Trade Risk Pro - Trade Array MRO File CDTS Product ID: 02181080 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Risk Entity Name	100	A/N	User-assigned.
Trade Array Sequence	4	NUM	DTCC-assigned definition. Format will be 9999.
Clearing Broker ID	8	A/N	Format will be 99999999.
Executing Broker ID	8	A/N	
Submitting Market ID	3	A/N	Format will be 999.
Submitting Firm ID	8	A/N	Format will be 99999999 when Submitting Market ID = '060' and User has entered a value.
Account	32	A/N	Optional, User-defined field
Array Status Code	2	A/N	Values indicate whether or not the Trade Array is undergoing an overnight change: 'A' – Active (no change) 'PA' – Pending Activation (will be Active on next business day) 'PD' – Pending Delete (will be Deleted on next business day)
Activation Date	8	A/N	Date that Risk Entity was live. Format = MMDDCCYY
Termination Date	8	A/N	Date the Risk Entity was deleted. Format = MMDDCCYY
Filler	121	A/N	Value = Spaces

Attachment D
Trade Risk Pro - Trade Array Audit Tray MRO File

Trade Array Audit Trail MRO

This MRO provides Members with details of changes to trade array definitions, supporting research into changed records.

Trade Risk Pro - Trade Array Audit Trail MRO File CDTS Product ID: 02181083 Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	392	A/N	Value = Spaces

Trade Risk Pro - Trade Array Audit Trail MRO File CDTS Product ID: 02181083 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Audit Action Code	4	A/N	Values: 'A001' - Add Trade Array 'U001' - Update Trade Array 'D001' - Delete Trade Array
User ID	100	A/N	Author of the change to the Trade Array
Entry Time	6	A/N	Format is HHMMSS.
Risk Entity Name	100	A/N	User-defined
<i>Trade Array Before Change</i>			
Original Clearing Broker ID	8	A/N	Format will be 99999999.
Original Executing Broker ID	8	A/N	
Original Submitting Firm ID	8	A/N	Format will be 99999999 when Submitting Market ID = '060'.
Original Submitting Market ID	8	A/N	Format will be 999.
Original Account	8	A/N	Optional field. Will be reported only if present.
<i>Trade Array After Change</i>			
Updated Clearing Broker ID	8	A/N	Format will be 99999999.

Attachment D
Trade Risk Pro - Trade Array Audit Tray MRO File

Trade Risk Pro - Trade Array Audit Trail MRO File			
CDTS Product ID: 02181083			
Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Updated Executing Broker ID	8	A/N	
Updated Submitting Firm ID	8	A/N	Format will be 99999999 when Submitting Market ID ='060'.
Updated Submitting Market ID	8	A/N	Format will be 999.
Updated Account	8	A/N	Optional field. Will be reported only if present.
Filler	110	A/N	Value = Spaces

**Attachment E
Trade Risk Pro – Risk Entity MRO File**

Risk Entity MRO

This MRO provides Members with the description, limits, and end of day positions for each of their Risk Entity definitions. This may be a useful for periodic management reporting, credit analysis and reviews and time series analyses.

Trade Risk Pro - Risk Entity MRO File CDTS Product ID: 02181079 Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	655	A/N	Value = Spaces

Trade Risk Pro - Risk Entity MRO File CDTS Product ID: 02181079 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Risk Entity Name	100	A/N	User-assigned.
Memo	200	A/N	Optional User-defined field.
Buy Quantity	15	NUM	Format will be 9999999999999999.
Sell Quantity	15	NUM	Format will be 9999999999999999.
Credit Contract Amount	17	NUM	Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Debit Contract Amount	17	NUM	Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Net Amount Indicator	1	A/N	Values: '+' - Credit '-' - Debit
Net Amount	17	NUM	Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.

Attachment E
Trade Risk Pro – Risk Entity MRO File

Trade Risk Pro - Risk Entity MRO File CDTS Product ID: 02181079 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Adjusted Credit Contract Amount	17	NUM	Defined as credit contract amount net of matching CUSIP debits. Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Adjusted Debit Contract Amount	17	NUM	Defined as debit contract amount net of matching CUSIP credits. Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Buy Limit Quantity	15	NUM	User-set limit for Buy Quantity. Format will be 999999999999999.
Sell Limit Quantity	15	NUM	User-set limit for Sell Quantity. Format will be 999999999999999.
Credit Contract Limit Amount	15	NUM	User-set limit for Credit Contract Amount. Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Debit Contract Limit Amount	15	NUM	User-set limit for Debit Contract Amount. Format will be 9999999999999999.
Net Credit Limit Amount	15	NUM	User-set limit for Net Credit Amount. Format will be 9999999999999999.
Net Debit Limit Amount	15	NUM	User-set limit for Net Debit Amount. Format will be 9999999999999999.
Adjusted Credit Limit Amount	15	NUM	User-set limit for Adjusted Credit Limit Amount. Format will be 9999999999999999.
Adjusted Debit Limit Amount	15	NUM	User-set limit for Adjusted Debit Amount. Format will be 9999999999999999.
Alert Level 1 Percentage	3	NUM	Optional, User-set limit Warning Threshold. Format will be 999.

Attachment E
Trade Risk Pro – Risk Entity MRO File

Trade Risk Pro - Risk Entity MRO File CDTS Product ID: 02181079 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Entity Status Code	2	A/N	Values indicate whether or not the Risk Entity is undergoing an overnight change: 'A' – Active (no change) 'PA' – Pending Activation (will be Active on next business day) 'PD' – Pending Delete (will be Deleted on next business day)
Activation Date	8	A/N	Date that Risk Entity was live. Format = MMDDCCYY
Termination Date	8	A/N	Date the Risk Entity was deleted. Format = MMDDCCYY
Filler	106	A/N	Value = Spaces

Attachment F
Trade Risk Pro – Risk Entity Audit Trail MRO File

Risk Entity Audit Trail MRO

This MRO provides Members with details of changes to Risk Entity definitions, supporting research into updated records.

Trade Risk Pro - Risk Entity Audit Trail MRO File CDTS Product ID: 02181082 Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	1142	A/N	Value = Spaces

Trade Risk Pro - Risk Entity Audit Trail MRO File CDTS Product ID: 02181082 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Audit Action Code	4	A/N	Values: 'A001' - Add Risk Entity 'U001' - Update Risk Entity 'D001' - Delete Risk Entity
User ID	100	A/N	Author of update.
Entry Time	6	A/N	Format is HHMMSS.
Risk entity Name	100	A/N	User-defined.
<i>Risk Entity Before Change</i>			
Original Lead Clearing Broker ID	8	A/N	Format will be 99999999.
Original Risk Entity Name	100	A/N	User-defined
Original Memo	200	A/N	Optional field.
Original Buy Limit Quantity	15	N	Format will be 9999999999999999.
Original Sell Limit Quantity	15	NUM	Format will be 9999999999999999.
Original Credit Contract Limit Amount	15	NUM	Format will be 9999999999999999.
Original Debit Contract Limit Amount	15	NUM	Format will be 9999999999999999.
Original Net Credit Limit Amount	15	NUM	Format will be 9999999999999999.

Attachment F
Trade Risk Pro – Risk Entity Audit Trail MRO File

Trade Risk Pro - Risk Entity Audit Trail MRO File CDTS Product ID: 02181082 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Original Net Debit Limit Amount	15	NUM	Format will be 9999999999999999.
Original Adjusted Credit Limit Amount	15	NUM	Format will be 9999999999999999.
Original Debit Limit Credit Amount	15	NUM	Format will be 9999999999999999.
Original Level 1 Alert Percentage	3	NUM	Format will be 999.
<i>Risk Entity After Change</i>			
Updated Lead Clearing Broker ID	8	A/N	Format will be 99999999.
Updated Risk Entity Name	100	A/N	User-defined.
Updated Memo	200	A/N	Optional field. Will be reported only if present.
Updated Buy Limit Quantity	15	NUM	Format will be 9999999999999999.
Updated Sell Limit Quantity	15	NUM	Format will be 9999999999999999.
Updated Credit Contract Limit Amount	15	NUM	Format will be 9999999999999999.
Updated Debit Contract Limit Amount	15	NUM	Format will be 9999999999999999.
Updated Net Credit Limit Amount	15	NUM	Format will be 9999999999999999.
Updated Net Debit Limit Amount	15	NUM	Format will be 9999999999999999.
Updated Adjusted Credit Limit Amount	15	NUM	Format will be 9999999999999999.
Updated Debit Limit Credit Amount	15	NUM	Format will be 9999999999999999.
Updated Level 1 percentage	3	NUM	Format will be 999.
Filler	78	A/N	Value = Spaces

**Attachment G
Trade Risk Pro - Alert History MRO File**

Alert History MRO

Provides Members with any alerts generated for their Risk Entities during the day. These may be accumulated in order to perform trend analyses over time.

Trade Risk Pro - Alert History MRO File CDTS Product ID: 02181081 Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	542	A/N	Value = Spaces

Trade Risk Pro - Alert History MRO File CDTS Product ID: 02181081 Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Risk Entity Name	100	A/N	User-defined.
Limit Identifier	2	A/N	Values: 'BQ' - Buy Quantity 'SQ' - Sell Quantity 'CR' - Credit Amount 'DB' - Debit Amount 'AC' - Adjusted Credit Amount 'NC' - Net Credit Amount 'ND' - Net Debit Amount 'AD' - Adjusted Debit Amount
Alert Level Code	1	A/N	Values: '1' - Level 1 Alert (warning threshold was breached) '2' - Level 2 Alert (actual limit was breached)
Memo	200	A/N	Optional, User-defined field.
Memo User ID	100	A/N	Memo author.
Alert Time	6	A/N	Format is HHMMSS.
Alert Amount	17	NUM	Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Alert Quantity	15	NUM	Format will be 999999999999999.

Attachment G
Trade Risk Pro - Alert History MRO File

Trade Risk Pro - Alert History MRO File			
CDTS Product ID: 02181081			
Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Alert Level 1 Percentage	3	NUM	Reported only if optional Warning Threshold is present. Format will be 999.
Alert Time End	6	A/N	Format is HHMMSS.
Ending Alert Amount	17	NUM	Format will be 9999999999999999.99 with an assumed decimal point before the last two numbers.
Ending Alert Quantity	15	NUM	Format will be 999999999999999.
Ending Level 1 Percentage	3	NUM	Reported only if optional Warning Threshold is present. Format will be 999.
Filler	65	A/N	Value = Spaces

Attachment H
Trade Risk Pro - End of Day Participant Position MRO File

End of Day Participant Positions MRO

This MRO provides Member Positions first by Trade Array, then CUSIP.

Trade Risk Pro - End of Day Participant Position MRO File			
CDTS Product ID: 02181085			
Header Record			
FIELDNAME	LENGTH	TYPE	Comments
Process Date	8	A/N	Format = MMDDCCYY
Filler	208	A/N	Value = Spaces

Trade Risk Pro - End of Day Participant Position MRO File			
CDTS Product ID: 02181085			
Detail Record			
FIELDNAME	LENGTH	TYPE	Comments
Clearing Broker ID	8	A/N	Format will be 99999999.
Executing Broker ID	8	A/N	
Submitting Market ID	3	A/N	Format will be 999
Submitting Firm ID	8	A/N	Format will be 99999999 when Submitting Market ID = '060'.
Account	32	A/N	Optional. Will be reported only if present.
Security ISIN ID	12	A/N	Format will be 12 characters
Buy/Sell Indicator	1	A/N	Value = 'B' or 'S'
Trade Quantity	15	NUM	Format will be 999999999999999.
Contract Amount Indicator	1	A/N	Values: '+' - Credit '-' - Debit
Contract Amount	17	NUM	Format will be 999999999999999.99 with an assumed decimal point before the last two numbers.
Filler	111	A/N	Value = Spaces