REGULATORY SERVICES DIVISION
TPH Data Transmission File Layouts for Submission on Request Basis

CFE Version 2.1
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I. Purpose

This document contains the standard file formats for TPH data to be transmitted to CBOE Futures Exchange, LLC (“CFE”) for regulatory processing pursuant to CFE Rule 501 and 502.

The standard file formats for quotes, orders and trades are also applicable to regulatory data request made by the Chicago Board Options Exchange, Incorporated and C2 Options Exchange, Incorporated pursuant to CBOE Rule 17.2 Interpretation and Policy .04 (which is incorporated by reference into C2 Chapter 17).

II. File Requirements

The requirements for the file formats, file naming conventions, and field formats are described in this document.

- Files transferred to the Exchanges should be comma delimited
- All files should be in the compressed GZIP format
- All files should be pushed to the designated location for retrieval
- Data provided by the firms that reside at the designated location, will only be accessible to Regulatory staff
- Files names will include the ICT number which will be provided as part of the request to the TPH

Data examples included in this document are fictitious and do not reflect an actual firm or individual’s information.

A. Files Included

The following standard data formats are included within this document:

File Description	Data_file_type
Quotes	QUOTES
Order	ORDERS
Trades	TRADES

B. File Naming Convention

TPHs must use a standard naming convention for all files submitted to the Regulatory Services Division (the “Division”). File names are to be supplied in lower case. The ICT number should match the ICT number included in the request made by the Division to the TPH. Submissions are expected to be in a zipped CSV format. The naming convention is as follows:

<tph_name>.<clear_firm>.<data_file_type>.ICT_<ict_number>.YYYYMMDD.csv.gz

tph_name -- >> firm name
clear_firm -- >> clearing firm code
data_file_type -- >> as defined in table above under Section II.A.
ict_number -- >> ICT number as identified on the request from the respective Exchange
YYYYMMDD -- >> Year Month and Day the file is sent

C. Field Legend

Values that are not applicable/not required, are to be set to null and include the comma delimiter.

The following table describes various field types within the standard formats:

Field	Description
Date	YYYYMMDD format --- e.g., November 15, 2012 would be entered as --- >>>> 20121115
Price	Maximum 20 characters including decimal point; up to 8 decimal places are allowed, although 4 decimal points are expected --- >>> e.g., 25045.2564
Time	Time is to be entered in Eastern Time , should include milliseconds, and be in Military format: HH:MM:SS:MIL --- >>> e.g., 14:25:10:123

- Account Codes / Order Origin Codes can be found in Appendix A
- Contingency Types can be found in Appendix B

D. Valid Exchange Acronyms

When an exchange acronym is to be entered, the following acronym format should be used:

EXCH_ACR	EXCH_NAME
AMEX	NYSE MKT
AMEX-O	NYSE AMEX Options Exchange
ARCA	NYSE ARCA Securities Exchange
ARCA-O	NYSE ARCA Options Exchange
BATS	BATS OPTIONS EXCHANGE
BOX	Boston Options exchange
BSE	Boston Stock Exchange
BX	NASDAQ OMX BX
BYX	BATS Y-Exchange
BZX	BATS Z-Exchange
C2	C2 Options Exchange
CBOE	Chicago Board Options Exchange
CBOT	Chicago Board Of Trade (CME Group)
CBSX	CBOE Stock Exchange
CFE	CBOE Futures Exchange
CHX	Chicago Stock Exchange
CME	CME Group
EDGA	EDGA Exchange
EDGX	EDGX Exchange
GEM	ISE Gemini
ISE	International Securities Exchange
LIFFE	NYSE LIFFE
MIA	MIAMI International Stock Exchange
MIAX	Miami Options Exchange
MSE	Montreal Stock Exchange (TMX Group)

EXCH_ACR	EXCH_NAME
NADTRF	NASDAQ TRF
NASDQ	NASDAQ
NFX	NASDAQ OMX Futures Exchange
NSX	National Stock Exchange
NYMEX	NYMEX(CME Group)
NYSE	New York Stock Exchange
NYSETRF	NYSE TRF
ONE	One Chicago
OTC	Over-the-counter
PHLX	NASDAQ OMX PHLX
TSX	Toronto Stock Exchange
OTHER	Other

III. Quotes

A. Quote Records

File Name: <tph_name>.<clear_firm>.QUOTES.ICT_<ict_number>.YYYYMMDD.csv.gz
The ICT number will be included in the request made to the TPH
Frequency: As Requested

File Description: Contains information about individual quotes.

The fields required for submission to the CFE are identified in the layout below. Required fields must be populated when applicable. Values that are not applicable/not required are to be set to null and include the comma delimiter. No additional data fields should be included in the file.

The following layout includes the CMi field or FIX Tag where available. This information is provided for reference only. Data may be requested for quotes related to activity on other exchanges.

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name(s) Where Data May Be Found, if available	FIX Tag	Example
1	QUOTE_EVENT_DATE	Yes	Date when the quote was entered, updated, filled, or canceled; yyyymmdd	Date	8		52; 60	20140522
2	QUOTE_EVENT_TIME	Yes	Time when the quote was entered, updated, filled, or canceled; time is to be entered in Eastern Time, include milliseconds and be in Military format: HH:MM:SS:MIL	Time	12		52	14:25:10:123
3	PRODUCT_TYPE	Yes	Valid product types: E - Equity/Stock F - Future O - Option U - Option of Future	Character	1		167	O

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name(s) Where Data May Be Found, if available	FIX Tag	Example
4	QUOTE_TYPE	Yes	Type of quote event: N - New U - Update F - Fill C - Cancel	Character	1	May be identified by message report type (e.g., Quote Cancel Response, Quote Fill Report, etc.)	9312; 368	N
5	QUOTE_ID	Yes	Unique quote ID assigned to the quote	Character	20	Quote Request ID	117	885360596
6	USER_ID	Yes	Identifier of the user associated with the quote (e.g. Login); for CFE, Order Entry Operator (OEO)	Character	18	User Session Key; Clearing Info (OEO)	50	TP6_CFE
7	TRADER_ACRONYM	No	Acronym of the trader who entered the quote; For CFE the acronym is the portion of the login that comes before the underscore (for example enter ABC if your login is ABC_CFE).	Character	5	User Acronym	50	TO6
8	TRADER_FIRM_CODE	No	Numeric Clearing Firm code of the firm with which the trader is affliated	Numeric	10	Executing or Give Up Firm Number		55500
9	TRADER_FIRM_ACRONYM	No	Firm acronym with which the trader is affiliated	Character	5			UBM
10	ACCOUNT_CODE	No	Account number of originator of quote; Sub-Account for Futures	Character	20	Account or Subaccount	1; 440	52121213627
11	ACCOUNT_ORIGIN	No	Refer to Appendix A for a list of Exchange origin codes, examples include: C - Public customer F - Clearing firm proprietary M - Exchange Market-Maker	Character	1		47	M
12	EXCHANGE	No	Exchange where quote was entered -- Refer to Valid_Exchange_Acronyms Table	Character	10	Only Session Name available in Trading Session Id field	207	CBOE
13	BID_PRICE	Yes	Bid price of product quoted by the trader	Numeric	20	Bid Price	132	30.4
14	BID_QUANTITY	Yes	Quantity of product quoted by the trader at BID_PRICE	Numeric	20	Bid Quantity	134	10
15	ASK_PRICE	Yes	Ask price of product quoted by the trader	Numeric	20	Ask Price	133	31.9
16	ASK_QUANTITY	Yes	Quantity of product quoted by the trader at ASK_PRICE	Numeric	20	Ask Quantity	135	10
17	TRADE_ID	No	Unique identifier of the trade associated with the FILLED quote. This TRADE_ID should match the TRADE_ID in the TRADES layout, if requested	Numeric	20	Trade ID High; Trade ID Low	17	4339706681

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name(s) Where Data May Be Found, if available	FIX Tag	Example
18	TRADE_PRICE	No	Trade price on quote	Numeric	20	Traded Price	31	32.6
19	TRADE_QUANTITY	No	Trade quantity on quote	Numeric	10	Traded Qty	32	10
20	REMAINING_QUANTITY	No	Quote quantity remaining on the quote after the trade.	Numeric	10	Leaves Qty	151	0
21	CANCEL_REASON	No	Identify reason for canceled quotes: U - User S - Exchange System (e.g., QRM)	Character	1	Similar to "Reason Code"	9008	U
22	UNDERLYING_SYMBOL	No	Underlying Security/Stock symbol of the product (not required for futures)	Character	10		311	MHK
23	SYMBOL	Yes	Option/Futures contract symbol, e.g., For options - SPXW or SPY7 For futures - VX Legs class symbol for leg of a strategy	Character	10	Class Key	55	MHK
24	EXPIRATION_DATE	Yes	Date on which the contract expires; yyyymmdd	Date	8	Class Key	200; 205	20140325
25	EXERCISE_PRICE	No	Exercise price	Numeric	20		202	30
26	PUT_CALL_CODE	No	Put/Call indicator: P - Put C – Call	Character	1		201	C
27	BUY_SELL_CODE	No	Indicates which side of the quote was filled by trade: B - Buy S - Sell H - Short sell (for stock only) X - Short sell exempt (for stock only)	Character	1		54; 20101	B
28	MPID	No	Market Participant Identifier of the firm	Character	15		N/A	8709157
29	AGGREGATE_UNIT	No	Aggregation unit identifier applicable to the quoter for reporting net long or net short positions	Character	20		N/A	10005

IV. Orders

A. Order Records

File name: <tph_name>.<clear_firm>.ORDERS.ICT_<ict_number>.YYYYMMDD.csv.gz
The ICT number will be included in the request made to the TPH
Frequency: As Requested

File Description: Information associated with Orders and Cancel/Replace Orders for a given firm. Each event for a requested order(s) must be provided (See the EVENT_TYPE field below).

For strategy orders, there should be an order record produced at the strategy level with PRODUCT_TYPE = S, and where MASTER_ORDER_ID = ORDER_ID. In addition to the strategy level order, there should be an order record for each 'leg' of the strategy, where the MASTER_ORDER_ID matches that of the strategy level record.

The fields required for submission to the CFE are identified in the layout below. Required fields must be populated when applicable (e.g., CANCEL_ORDER_ID is only applicable if the referenced order was cancelled). Values that are not applicable/not required are to be set to null and include the comma delimiter. No additional data fields should be included in the file.

The following layout includes the CMi field or FIX Tag where available. This information is provided for reference only. Data may be requested for orders sent to other exchanges.

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
1	ORDER_ENTRY_DATE	Yes	Date when the original order or cancel/replace order was submitted; yyyymmdd	Date	8	Order Date	52	20140522
2	ORDER_ENTRY_TIME	Yes	Time when the original order or cancel/replace order was submitted; Time is to be entered in Eastern Time, include milliseconds and be in Military format: HH:MM:SS:MIL	Time	12		52	14:25:10:123
3	PRODUCT_TYPE	Yes	Valid product types: E - Equity/Stock F - Future O - Option S - Strategy/Complex Order U - Option of Future	Character	1		167	O
4	RECORD_TYPE	Yes	Order; Cancel/Replace O - Order R - Cancel/Replace	Character	1	Message Type 123 and 125	MsgType [35] = D; MsgType =G	O
5	EVENT_TYPE	Yes	Order event type: N - New C - Canceled F - Filled (partial or full) W - Waiting P - Pending Cancel R - Cancel Request T - Too Late to Cancel D - Done for Day U - Unexecuted M - Modify B - Combo	Character	1	Status Change	39	N
6	EVENT_DATE	Yes	Date when this event (Field Position 5) occurred; yyyymmdd	Date	8	Timestamp	52; 60	20140325
7	EVENT_TIME	Yes	Time when this event (Field Position 5) occurred; includes milliseconds	Time	12	Timestamp	52; 60	14:25:10:123

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
8	CMPLX_SMPL_ INDICATOR	Yes	Indicate if this is a simple or complex order: 0 - Simple Order 1 - Strategy/Complex Order (master and legs)	Numeric	1	Message Type 123 and 126	MsgType [35] = D and 167=MLEG/OPT/FUT	0
9	ORDER_ID	Yes	Unique identifier assigned to the order (see Appendix C for conversion to numeric field type)	Numeric	20	Order ID High Order ID Low	37	2567144131
10	MASTER_ORDER_ID	No	For derived orders, this field identifies the Parent order For strategy/complex orders, this field may identify the primary order. Each order leg may have this field filled in with the ORDER_ID of the overall strategy order	Numeric	20	Order ID High Order ID Low; Product Key	11; 17;37	
11	FIRM_BRANCH_ CODE	Yes	Branch code of firm submitting the orders	Character	5	Branch	11	WAX
12	BRANCH_SEQ_ NUMBER	Yes	A sequence number assigned by the firm for a given branch	Numeric	10	Branch Sequence Number	11	5321
13	TRADER_ ACRONYM	Yes	Acronym or MPID of the trader who entered the order	Character	5	User Acronym; Extensions- required for buy writes	9825	RFB
14	TRADER_ROLE_ CODE	No	Role of the trader that submitted the order P – Principal A – Agency	Character	1	Origin Type	47	P
15	USER_ID	Yes	Identifier of the user associated with the order (e.g. Login); for CFE, Order Entry Operator (OEO)	Character	18	User Session Key; Clearing Info (OEO for Order Format 1); Optional Data (OEO for Order Format 3)	50	RFB05
16	ACCOUNT_CODE	Yes	Account Code For Market Makers: Populate this field with the GROUP_ACRONYM of the Group Account if it is a joint account, or the TRADER_ACRONYM if trader account For CFE Sub Account	Character	20	Account	1; 440	2AP1205031

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
17	ACCOUNT_ORIGIN	Yes	Refer to Appendix A for a list of Exchange origin codes, examples include: C - Public customer F - Clearing firm proprietary M - Exchange Market-Maker	Character	1	Origin Type	47	M
18	EXECUTING_FIRM _CODE	Yes	Clearing firm number of Executing firm used for this order: Stock – DTCC # Options, Futures, Options on Futures – OCC #	Numeric	3 for options and 4 for stock	Executing give Up Firm Number	76	581
19	CMTA_FIRM_CODE	Yes	CMTA (giveup) firm that submitted the order via the executing firm. Assigned by the OCC or NSCC	Numeric	3 for options and 4 for stock	CMTA Firm Number	439	591
20	CORES_FIRM_CODE	Yes, if applicable	Correspondent firm involved in the order	Character	5	Correspondent Firm	109	SFUFF
21	EXCHANGE	No	Exchange where quote was entered -- Refer to Valid_Exchange_Acronyms Table	Character	10	Only Session Name available in Trading Session Id field	207	CBOE
22	ORIG_ORDER_ QUANTITY	Yes	Original quantity of Order entered. This will be the leg quantity when the order is a leg of a strategy	Numeric	10	Original Quantity	38	20
23	BUY_SELL_CODE	Yes	Indicates this order as a buy or sell order B – Buy S – Sell D – Debit (for spreads) C – Credit (for spreads;0/Even default to Credit) H – Sell Short (for stock) X – Sell Short Exempt (for stock)	Character	1	Side; Sell Short Indicator	54; 20101	B
24	ORDER_PRICE	Yes	Limit price of the order. For market orders, leave this field null. For strategy orders, the price can be negative. For strategy orders with net price of zero, populate price with 0	Numeric	20	Price	44	0.55
25	CABINET_INDICATOR	No	C - Indicates cabinet order (for options only)	Character	1	Price Type	9469; 44	
26	UNDERLYING_SYMBOL	No	Underlying Security/Stock symbol of the product (not required for futures)	Character	10	Product Key	311	NEOP

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
27	SYMBOL	Yes	Option/Futures contract symbol, e.g., For options - SPXW or SPY7 For futures - VX Legs class symbol for leg of a strategy	Character	10	Product Key	55	NEOP
28	PUT_CALL_CODE	Yes, if applicable	Put/Call indicator: P - Put C - Call	Character	1		201	C
29	EXPIRATION_DATE	Yes, if applicable	Date on which the contract expires; yyyymmdd	Date	8		200; 205	20130119
30	EXERCISE_PRICE	Yes, if applicable	Exercise price	Numeric	20		202	3
31	TIME_IN_FORCE_ INDICATOR	Yes	Indicates how long the order will remain active. D – Day G – Good until canceled T – Good until expire time	Character	1	Time In Force	59	D
32	OPEN_CLOSE_ INDICATOR	No	Defines an open or close position O – Open C – Close N – Not applicable. Open Close code of N is usually set only for Market orders or where it is not feasible to identify	Character	1	Position Effect	77	O
33	TRADE_QUANTITY	No	Total traded quantity	Numeric	15	Traded Qty	32	20
34	TRADE_ID	No	Unique identifier assigned to the trade when traded	Numeric	20	Trade ID High; Trade ID Low	17	250105631
35	BUST_QUANTITY	No	Total busted quantity	Numeric	15	Bust Qty	9368	0
36	CANCELED_QUANTITY	Yes, if applicable	Total canceled quantity	Numeric	15	Cancel Qty	84	0
37	REQUESTED_CANCEL_ QUANTITY	Yes, if applicable	Order quantity that was requested to be canceled	Numeric	15	Quantity to Cancel	38	0
38	REMAINING_ QUANTITY	No	Order quantity remaining	Numeric	15	Leaves Qty	151	0
39	MPID	No	Market Participant Identifier of the firm, if applicable	Character	15	Extensions	9825	8709157
40	CREATE_REDEEM_ TYPE	No	Type identification for creation or redemption: C – Create R – Redeem	Character	1			
41	AGGREGATE_UNIT	No	Aggregation unit identifier applicable to the beneficial account for reporting net long or net short positions	Character	20			10005
42	EXER_ASGN	No	E – Exercise A – Assigned	Character	1			
43	CANCEL_ORDER_ID	Yes, if applicable	Order ID of Order to be Canceled	Numeric	20	Original ID High Original ID Low	41	
44	REPLACE_ORDER_ID	Yes, if applicable	For cancel/replaced -- This should be populated with the replace order identifier	Numeric	20	Order ID High Order ID Low	11	

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
45	CRD_NUMBER	No	For Stock Orders – Central Registration Depository Number	Character	8			
46	OPT_DATA	No	Additional order details e.g., paired order id	Character	20	Optional Data	9324	
47	CONTINGENCY_TYPE	Yes	Contingency Type entered on order. Refer to Appendix B	Character	5	Contingency Type	40,44.59 ,99,110, 111	
48	LOCATE	No	Locate indicator – Sell Short	Character	10	Side Codes		
49	TRANS_DRCTN	Yes	Transaction direction identifies if this transaction is sent to or from Valid values: TO FROM	Character	4			FROM
50	TRANS_SITE	Yes	Transaction site identifies if this is transaction is sent to or from the customer or exchange Valid values: CUST EXCH	Character	4			CUST
51	ORDER_TYPE_VAL	No	Tied to Stock will allow users to indicate that stock trades took place in conjunction with this options order; SPX Combo will allow users to indicate that this order is all or part of an SPX Combo. Valid values: 1=TIE_TO_STOCK; 2=SPX_COMBO; or NULL	Numeric	3	Extentions	21080	1
52	TIED_TO	No	Tied To Stock Indicator Y - Yes N - No	Character	1	Extentions	21080	Y
53	EXEC_VENUE	No	Exchange venue of execution - Valid_Exchange_Acronyms	Character	10			CBOE
54	TRADE_PRICE	No	Price at which the trade executed	Numeric	20	Traded Price	31	2.5

V. Trades

A. Trade Records

File name: <tph_name>.<clear_firm>_TRADES.ICT_<ict_number>.YYYYMMDD.csv.gz
Frequency: As Requested

File Descr: Information associated with trade details for each trade.

The fields required for submission to the CFE are identified in the layout below. Required fields must be populated when applicable. Values that are not applicable/not required are to be set to null and include the comma delimiter. No additional data fields should be included in the file.

The following layout includes the CMi field or FIX Tag where available. This information is provided for reference only. Data may be requested for trades executed on other exchanges.

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
1	TRADE_DATE	Yes	Date trade occurred; yyyymmdd	Date	8	Timestamp	52; 60	20121214
2	TRADE_TIME	Yes	Time at which the trade occurred; Time is to be entered in Eastern Time, include milliseconds and be in Military format: HH:MM:SS:MIL	Time	12	Timestamp	52	14:25:10:123
3	PRODUCT_TYPE	No	Valid product types: E - Equity/Stock F - Future O - Option S - Strategy/Complex Order U - Option of Future	Character	1		167	O
4	TRADE_TYPE	Yes, if applicable	BLKT - Block trade EXPH – Exchange future for physical MAN - Manual Trade REG - Regular Trade CPSC - Cross product Cross Trade CPSL - Cross Product Leg Trade CASH - Cash Trade INTSW - Intermarket Sweep LINK - Linkage Trade NXTDT - Next Day Trade TWDT - Two Day Trade	Character	5		277	REG
5	TRADE_ID	Yes	Unique identifier assigned to this record of trade (see Appendix C for conversion to numeric field type)	Numeric	20	Trade ID High; Trade ID Low	17	250105631

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
6	ACCOUNT_CODE	Yes	Account Code For Firms and Customer: Populate this field with CMTA_FIRM_CODE if available, EXECUTING_FIRM_NUMBER if not. For Market Makers: Populate this field with the GROUP_ACRONYM of the Group Account if it is a joint account, or the TRADER_ACRONYM if trader account For CFE Sub Account	Character	20	Account	1; 440	QEG
7	ACCOUNT_ORIGIN	Yes	Refer to Appendix A for a complete list of account origin codes, examples include: C - Public customer F - Clearing firm proprietary M - Exchange Market-Maker	Character	1	Origin Type; Optional Data	47	M
8	ORDER_ID	Yes	Unique identifier of the original order or quote associated with this trade. This field should match the ORDER_ID or QUOTE_ID of the Order or Quote layouts as applicable (if requested) (see Appendix C for conversion to numeric field type)	Numeric	20	Order ID High Order ID Low	11	2567144131
9	ORDER_ENTRY_DATE	Yes	Original Order Entry Date; This field should match ORDER_ENTRY_DATE in the Orders layout, if requested	Date	8	Order Date	52	20121214
10	UNDERLYING_SYMBOL	No	Underlying Security/Stock symbol of the product (not required for futures)	Character	10	Product Key	311	NEOP
11	SYMBOL	Yes	Option/Futures contract symbol, e.g., For options - SPXW or SPY7 For futures - VX Legs class symbol for leg of a strategy	Character	10	Product Key	55	NEOP
12	EXPIRATION_DATE	Yes	Date on which the contract expires; yyyymmdd	Date	8		200; 205	20130119
13	EXERCISE_PRICE	Yes, if applicable	Exercise price	Numeric	20		202	3
14	PUT_CALL_CODE	Yes, if applicable	Put/Call indicator: P - Put C – Call	Character	1		201	P

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
15	ORIG_ORDER_PRICE	No	Price at which the original order was entered	Numeric	20	Price	44	5
16	ORIG_ORDER_QUANTITY	No	Quantity for which the original order was entered	Numeric	20	Leaves Qty + Traded Qty	38	50
17	TRADE_PRICE	Yes	Price at which the trade executed	Numeric	20	Traded Price	31	2.5
18	TRADE_QUANTITY	Yes	Quantity for this trade record	Numeric	20	Traded Qty	32	25
19	TRADER_ACRONYM	Yes	Acronym or MPID of the trader who entered the order	Character	5	User Acronym	9825	RIB
20	USER_ID	Yes	Identifier of the user associated with the order (e.g. Login); for CFE, Order Entry Operator (OEO)	Character	10		50	TZCB
21	FIRM_ID	No	Unique identifier of the executing firm	Numeric	10		76	849
22	CLEAR_FIRM_CODE	Yes	Clearing firm number of Executing firm used for this order: Stock – DTCC # Options, Futures, Options on Futures – OCC #	Numeric	3 - for option exchanges; 4 - for stock exchanges			271
23	CLEAR_FIRM _ACRONYM	No	Firm acronym of the clearing firm used by the executer of trade. Acronym should match its corresponding CLEAR_FIRM _NUMBER	Character	5			TQS
24	CMTA_CODE	No	Give up firm of the buyer/seller as assigned by the OCC or NSCC	Character	3 - for option exchanges; 4 - for stock exchanges		439	367
25	OPEN_CLOSE_INDICATOR	No	Open Close Indicator of the buyer's position O – Opening C – Closing N – the buy side is a quote or it is not feasible to identify	Character	1		77	O
26	USER_ROLE_CODE	No	Role of the trader that submitted the order P – Principal A – Agency	Character	1		47	M

Field Position	Field Name	Required for Futures?	Field Definition	Field Type	Length	CMi Field Name, if available	FIX Tag	Example
27	CORRES_FIRM_CODE	Yes, if applicable	Correspondent firm acronym. The firm may not be a member firm. The trader submitting an order to indicate the customer on whose behalf this order is submitted	Character	5		109	FES
28	BUY_SELL_INDICATOR	Yes	Indicates this trade as a buy or sell B – Buy S – Sell D – Debit (for spreads) C – Credit (for spreads;0/Even default to Credit) H – Sell Short (for stock) X – Sell Short Exempt (for stock)	Character	1	Side; Sell Short Indicator	54; 20101	B
29	CREATE_REDEEM_TYPE	No	Type identification for creation or redemption: C – Create R – Redeem	Character	1			
30	EXER_ASGN_TYPE	No	E – Exercise A – Assigned	Character	1			A
31	CRD_NUMBER	No	For Stock Orders – Central Registration Depository Number	Character	8			
32	AGGREGATION_UNIT	No	Aggregation unit identifier applicable to the beneficial account for reporting net long or net short positions	Character	20			WEGP
33	TRANS_DRCTN	Yes	Transaction direction identifies if this transaction is sent to or from Valid values: TO FROM	Character	4			FROM
34	TRANS_SITE	Yes	Transaction site identifies if this is transaction is sent to or from the customer or exchange Valid values: CUST EXCH	Character	4			CUST
35	EXEC_VENUE	No	Exchange venue of execution - Valid_Exchange_Acronyms	Character	10			CBOE

VI. Appendix

A. Account Origin

The following are valid Account Origins:

CBOE / C2

CBOE Account Type	Description	OCC Clearing Account Type: C-Customer F-Firm M-Market Maker J-Joint
C	Customer	C
B	Broker Dealer	C
F	Firm	F
J	Joint Back Office (JBO) Account	J
M	Market Maker Account	M
I	In-Crowd Market-Maker (Hybrid Only)	M
N	Non-Member Market Maker/Market Maker specialist at another options exchange	M
W	Professional Customer	
Y	Underlying Specialist	

CBOE Futures Exchange - CFE

CBOE Account Type	Description	OCC Clearing Account Type: C-Customer F-Firm M-Market Maker J-Joint
D (FIX Interface)	TPH	C
V (CMi Interface)	TPH	C
E	TPH	F
F	TPH	F
O	TPH	C
M	TPH	M
A (FIX Interface)	TPH	C
G (CMi Interface)	TPH	C
H	TPH	F
C	NON-TPH	C
L	NON-TPH	F

B. Contingency Types

CODE	DESCRIPTION
AON	All or None
FOK	Fill or Kill
IOC	Immediate or Cancel
GTC	Good Till Cancel
MIN	Minimum Quantity
W/ or WD	With Discretion
OPG	Opening
STP	Stop (stop loss)
STL	Stop Limit
MIT	Market if Touched
MOC	Market on Close
CLO	Limit on Close
ISO	Intermarket Sweep
ISB	Intermarket Sweep Book
WTP	Wash Trade Prevention
NTH	Not Held
AUC	Auction Response
RSV	Reserve Order
MPC	Midpoint Cross
CRO	Cross
TCR	Tied Cross
ALC	Auto Link Cross
ACM	Auto Link Cross Match
CWH	Cross Within
TCW	Tied Cross Within
SOL	Stock Odd Lot NBBO Only
FCX	NBBO Flash then Cancel
DNR	Do Not Route
NFR	NBBO Flash Response
BPC	Bid Peg Cross
OPC	Offer Peg Cross
TCS	Tied Cross Sweep
CSC	Cash Settlement Cross
NDS	Next Day Settlement Cross
TDS	Two Day Settlement Cross
DRK	Dark Order
DRM	Dark Mid
DPM	Dark Post Mid
DMI	Dark Mid IOC

C. Conversion for Numeric Field Type

The following applies to the ORDER_ID and TRADE_ID fields in the above layouts.

Field Position 9, FIX tag 37 – **Order_ID** in Orders Table

$$\underbrace{\text{'66270:1975011927'}}_{\text{Order\_ID in character format}}$$

Formula: Order_ID numerical = character value before':' * $POWER(2,32)$ + value after':'

Order_ID numerical = 66270 * 4294967296 + 1975011927 = 284629457717847

Field Position 5, FIX tag 17 – **Trade_ID** in Orders Table

$$\underbrace{\text{66270:1975011982}}_{\text{Order\_ID}}.\underbrace{\text{66270:1767570164}}_{\text{Trade\_ID in character format}}\text{.0}$$

Formula: Trade_ID numerical = character value before':' * $POWER(2,32)$ + value after':'

Trade_ID numerical = 66270 * 4294967296 + 1767570164 = 284629250276084