

## 2.1 Futures & Options (FAO)/ Equity Derivatives Order Data

Message Layout						
Name	Futures & Options/ Equity Derivatives Market Orders Data					
Frequency	All order ticks					
Record length	Fixed					
Record Delimiter	LF					
Field No	Name of the Field	Field Description	Type	Length No of Bytes	Valid Range of Values	Other Comments
1	Record Indicator	Regular Market Order	Alphabetic	2	'RM'	Regular Market Order
2	Segment	Segment	Alphabetic	4	'FAOb'	Equity Derivatives
3	Order Number	Order Number	Numeric	16		
4	Transaction Time (Jiffies)	Time when transaction occurred	Numeric	14		65536 Jiffies=1sec. Jiffies are counted from 1 Jan 1980 midnight
5	Buy / Sell Indicator	Order Type	Alphabetic	1	'B','S'	'B' = Buy 'S' = Sell
6	Activity Type	Transaction Type	Numeric	1	1, 3, 4	1 - Order Entry 3 - Order Cancel 4 - Order Mod
7	Symbol	Underlying Symbol	Alphabetic	10		The values in this field will be padded with leading <b>b</b> 's when < 10 chars. E.g. Symbol ABC will be "bbbbbbbABC"
8	Instrument	Derivative Instrument Type	Alphabetic	6	'FUTIDX' 'OPTIDX' 'FUTSTK' 'OPTSTK'	'FUTIDX' = Index Futures 'OPTIDX' = Index Options 'FUTSTK' = Stock Futures 'OPTSTK' = Stock Options

9	Expiry Date	Expiry Date of Derivative Contract	Alphanumeric	9		This field is of the format DDMMYYYY e.g. "28JUN2012"
10	Strike Price	Strike Price of Underlying for Option contract	Numeric	8	Non-Negative	The value in this field will be in paise wherein the right most 2 digits will indicate values after decimal point. It will be 0 for Future Contracts and will be padded with leading zeros when < 8 places. E.g. 101.50 will be "00010150"
11	Option Type	Option Type of Derivative Contract	Alphabetic	2	'CA' 'PA' 'CE' 'PE' 'FF'	'CA' = Call American 'PA' = Put American 'CE' = Call European 'PE' = Put European 'FF' = Futures Contract
12	Volume Disclosed	Disclosed Qty	Numeric	8	Non-Negative	The value in this field is 0 for Non-DQ orders and it will be padded with leading zeros when < 8 places, This represents no of shares for both options and futures. It does not represent No of Contracts E.g. 1234 will be "00001234"
13	Volume Original	Order Qty	Numeric	8	Non-Zero, Non-Negative	The value in this field will be padded with leading zeros when < 8 places. This represents no of shares for both options and futures. It does not represent No of Contracts E.g. 1234 will be "00001234"

14	Limit Price	Order Price	Numeric	8	Non-Negative	The value in this field will be in paise wherein the right most 2 digits will indicate values after decimal point. For spread orders, it is the spread value between 2 contracts' LTP and can therefore be 0. It will be padded with leading zeros when < 8 places. E.g. 123.45 will be "0000012345".
15	Trigger Price	Price at which Stop Loss order is to be triggered	Numeric	8	Non-Zero, Non-Negative	The value in this field will be in paise wherein the right most 2 digits will indicate values after decimal point. The value in this field is 0 for Non-Stop Loss orders. The value in this field will be padded with leading zeros when < 8 places. E.g. 123.45 will be "0000012345"
16	MKT Flag	Market/Limit Order Indicator	Alphabetic	1	'Y','N'	'Y' = Market Order 'N' = Limit Order
17	On Stop Flag	Stop Loss Indicator	Alphabetic	1	'Y','N'	'Y' = Stop Loss Order 'N' = Regular Lot Order
18	IO Flag	IOC Indicator	Alphabetic	1	'Y','N'	'Y' = Immediate or Cancel 'N' = Non IOC
19	Spread / Combination Type	Spread/ Combinational Order Indicator	Alphabetic	1	'S', '2', '3', '*'	'S' = Spread Order '2' = 2 Leg Order '3' = 3 Leg Order '*' = Non-Spread Order

20	Algo Indicator	Flag indicating source of Terminal generating Order	Numeric	1	0, 1, 2, 3	0 - Algo 1 - Non-Algo 2 - Algo thru SOR 3 - Non-Algo thru SOR
21	Client Identity Flag	Flag indicating beneficiary	Numeric	1	1,2,3	1 - Custodian 2 - Proprietary 3 - Client
22	Limit Price Indicator	Flag to indicate positive /negative limit price	Alphabetic	1	'Y', 'N', blank, any other value	'N' = Negative 'Y' or blank or any other value = Positive
Total Length				112		

## 2.2 Futures & Options (FAO)/ Equity Derivatives Trade Data

Message Layout						
<b>Name</b>	Equity Derivatives Market Trade Data					
<b>Frequency</b>	All trade ticks					
<b>Record length</b>	Fixed					
<b>Record Delimiter</b>	LF					
Field No	Name of the Field	Field Description	Type	Length No of Bytes	Valid Range of Values	Other Comments
1	Record Indicator	Regular Market Trade	Alphabetic	2	'RM'	Regular Market Trade
2	Segment	Segment	Alphabetic	4	'FAOb'	Equity Derivatives
3	Trade Number	Transaction Number	Numeric	17		Trade ID size till 04 September 2020 was 16 bytes and the trade structure total size was 123 bytes, from 7 September 2020 it is 17 bytes, and the trade structure total size is 124 bytes.
4	Trade Time (Jiffies)	Time when transaction occurred	Numeric	14		65536 Jiffies = 1sec. Jiffies are counted from 1 Jan 1980 midnight
5	Symbol	Underlying Symbol	Alphabetic	10		The values in this field will be padded with leading <b>b</b> 's when < 10 chars. E.g. Symbol ABC will be "bbbbbbbABC"
6	Instrument	Derivative Instrument Type	Alphabetic	6	'FUTIDX' 'OPTIDX' 'FUTSTK' 'OPTSTK'	'FUTIDX' = Index Futures 'OPTIDX' = Index Options 'FUTSTK' = Stock Futures 'OPTSTK' = Stock Options
7	Expiry Date	Expiry Date of Derivative Contract	Numeric	9		This field is of the format DDMMYYYYY e.g. "28JUN2012"

8	Strike Price	Strike Price of Option contract	Numeric	8	Non-Negative	The value in this field will be in paise wherein the right most 2 digits will indicate values after decimal point. It will be 0 for Future Contracts and will be padded with leading zeros when < 8 places. E.g. 101.50 will be "00010150"
9	Option Type	Option Type of Derivative Contract	Alphabetic	2	'CA' 'PA' 'CE' 'PE' 'FF'	'CA' = Call American 'PA' = Put American 'CE' = Call European 'PE' = Put European 'FF' = Futures Contract
10	Trade Price	Transaction Price	Numeric	8	Non-Zero, Non-Negative	The value in this field will be in paise wherein the right most 2 digits will indicate values after decimal point. The value in this field will be padded with leading zeros when < 8 places. E.g. 123.45 will be "0000012345"
11	Trade Quantity	Transaction Qty	Numeric	8	Non-Zero, Non-Negative	The value in this field will be padded with leading zeros when < 8 places. Represents no of shares. E.g. 1234 will be "00001234"
12	Buy Order Number	Buy Order Number of Transaction	Numeric	16		
13	Buy Algo Indicator	Flag indicating source of Buy Terminal	Numeric	1	0, 1, 2, 3	0 - Algo 1 - Non-Algo 2 - Algo thru SOR 3 - Non-Algo thru SOR
14	Buy Client Identity Flag	Flag indicating Buy Side beneficiary	Numeric	1	1,2,3	1 - Custodian 2 - Proprietary 3 - Client
15	Sell Order Number	Sell Order Number of Transaction	Numeric	16		

16	Sell Algo Indicator	Flag indicating source of Sell Terminal	Numeric	1	0, 1, 2, 3	0 - Algo 1 - Non-Algo 2 - Algo thru SOR 3 - Non-Algo thru SOR
17	Sell Client Identity Flag	Flag indicating Sell Side beneficiary	Numeric	1	1,2,3	1 - Custodian 2 - Proprietary 3 - Client
<b>Total Length</b>				<b>124</b>		

**NOTE:** Due to the high volatility of the market and increase in trading volume in FAO segment, the size of current single compressed file is approximately in the range of several GBs (60 - 100 GBs). To reduce the download time of the single file, the existing single file of Order and Trade files have been split into multiple files and their nomenclature are given below:

Orders Files	Trade Files:
1.FAO_Orders_DDMMYYYY_01.DAT.gz	1. FAO_Trades_DDMMYYYY_01.DAT.gz
2. FAO_Orders_DDMMYYYY_02.DAT.gz	2. FAO_Trades_DDMMYYYY_02.DAT.gz
11. FAO_Orders_DDMMYYYY_11.DAT.gz	11. FAO_Trades_DDMMYYYY_11.DAT.gz
⋮	⋮
N. FAO_Orders_DDMMYYYY_nn.DAT.gz	N. FAO_Trades_DDMMYYYY_nn.DAT.gz
n* ---Number of streams in sequential order	

Note: Number of streams will increase in sequentially on timely basis.

- Please note that none of the contracts will be overlapping in the any of the files. The file size of each file will be different.