

HISTORICAL FULL BOOK (SECURITIES MARKET)

Update History

No.	Issue Date	Details
1	2013-09-30	First Issue
2	2016-07-08	<p>Revised Edition with the following updates, with effect from the issue of 25 July 2016:</p> <ul style="list-style-type: none">• Section 1.2<ul style="list-style-type: none">– Introduce two fields “VCM Flag” and “CAS Flag” in Securities Definition– Add new possible value “O” for others for the data field CallPutFlag in addition to the existing possible values “C” for Call and “P” for Put– Format change to Security Definition (11) message to insert a number of fillers inside the message• Section 2.1 – New field values for new trading sessions in CAS• Section 3.7 – Add new VCM Trigger (23) message• Section 3.8 – Add new Reference Price (43) message• Section 3.9 – Add new Order Imbalance (56) message
3	2018-01-22	<p>Revised Edition with the following updates, with effect from the issue of 05 February 2018:</p> <ul style="list-style-type: none">• Section 2<ul style="list-style-type: none">- Remove Security Status (21) message- Rename section name• Section 3<ul style="list-style-type: none">- Add Security Status (21) message• Section Overview, 3, 4<ul style="list-style-type: none">- Update content description for files

The Historical Full Book includes 4 types of information – (1) Securities Reference data, (2) Trading Session Status data, (3) Securities Full Order Book data and (4) Securities Market Odd Lot Order data. Please refer to the below sub-sections for the details of the 4 types of information.

The following table lists out the data files to be found in each issue:

File Name	Contents
MC01_AII_YYYYMMDD	Securities Reference
MC02_AII_YYYYMMDD	Trading Session Status
MC30_AII_YYYYMMDD	Securities Full Order Book file for stock group #1
MC31_AII_YYYYMMDD	Securities Full Order Book file for stock group #2
MC32_AII_YYYYMMDD	Securities Full Order Book file for stock group #3
MC33_AII_YYYYMMDD	Securities Full Order Book file for stock group #4
MC34_AII_YYYYMMDD	Securities Full Order Book file for stock group #5
MC35_AII_YYYYMMDD	Securities Full Order Book file for stock group #6
MC36_AII_YYYYMMDD	Securities Full Order Book file for stock group #7
MC37_AII_YYYYMMDD	Securities Full Order Book file for stock group #8
MC38_AII_YYYYMMDD	Securities Full Order Book file for stock group #9
MC70_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #1
MC71_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #2
MC72_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #3
MC73_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #4
MC74_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #5
MC75_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #6
MC76_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #7
MC77_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #8
MC78_AII_YYYYMMDD	Securities Market Odd Lot Order file for stock group #9

1) YYYYMMDD is the date of file

2) If there is no record in the file, a dummy file with zero-length size will be provided.

1. Securities Reference

The Securities Reference file is in binary format and contains four types of messages – **MarketDefinition**, **SecurityDefinition**, **LiquidityProvider** and **CurrencyRate**. There is only one Securities Reference file with filename MC01_AII_YYYYMMDD, where YYYYMMDD is the date of the Securities Reference file.

The layout of the Securities Reference is as follows:

<RecordLength><PacketHeader><SecuritiesReference>...<RecordLength><PacketHeader><SecuritiesReference>...<RecordLength><PacketHeader><SecuritiesReference>

Following is the message layout of the **RecordLength**

Offset	Field	Format	Len	Description
0	RecLen	UInt16	2	Size of the record (including this field)
Total length			2	

Following is the message layout of the **PacketHeader**

Offset	Field	Format	Len	Description
0	PktSize	UInt16	2	Size of the packet (including this field)
2	MsgCount	UInt8	1	Number of messages included in the packet

Offset	Field	Format	Len	Description
3	Filler	String	1	
4	SeqNum	UInt32	4	Sequence number of the first message in the packet
8	SendTime	UInt64	8	The number of nanoseconds since <i>January 1, 1970, 00:00:00 GMT</i> , precision is provided to the nearest millisecond.
Total length			16	

<**SecuritiesReference**> contains different combinations of the four types of messages – **MarketDefinition**, **SecurityDefinition**, **LiquidityProvider** and **CurrencyRate**. For example:

<**MarketDefinition**><**SecurityDefinition**><**LiquidityProvider**><**CurrencyRate**> or
 <**SecurityDefinition**><**SecurityDefinition**><**SecurityDefinition**><**SecurityDefinition**>

Followings are the message layouts of the **MarketDefinition**, **SecurityDefinition**, **LiquidityProvider** and **CurrencyRate**

1.1 Market Definition (10)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	10 Market Definition
4	MarketCode	String	4	Market code	MAIN GEM NASD ETS
8	MarketName	String	25	Market Name	Alphanumeric
33	CurrencyCode	String	3	Base currency code of the market.	
36	NumberOfSecurities	UInt32	4	Number of securities within the market	
Total Length			40		

1.2 Security Definition (11)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	11 Security Definition
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	MarketCode	String	4	Market code	MAIN GEM NASD ETS
12	ISINCode	String	12	ISIN code of the security.	
24	InstrumentType	String	4	Instrument type of the security.	BOND Bonds BWRT Basket Warrants EQTY Equities TRST Trusts WRNT Warrants & structured products (DW & CBBC)

Offset	Field	Format	Len	Description	Values
28	Filler	String	2		
30	SpreadTableCode	String	2	Spread table code of the security.	Spread table as per Second Schedule of Rules of the Exchange: '01' Part A '03' Part B
32	SecurityShortName	String	40	Security short name	
72	CurrencyCode	String	3	Security currency code of the market.	See Currency Values in section 3.1.2 for full details.
75	SecurityNameGCCS	Binary	60	Security name in Traditional Chinese using Unicode	Unicode UTF-16LE encoded
135	SecurityNameGB	Binary	60	Security name in Simplified Chinese using Unicode	Unicode UTF-16LE encoded
195	LotSize	UInt32	4	Board lot size for the security	
199	Filler	String	4		
203	PreviousClosingPrice	Int32	4	Previous closing price of the security	3 implied decimal places
207	VCMFlag	String	1	Indicates whether Volatility Control Mechanism (VCM) is applicable to the security	Y VCM applicable N VCM not applicable
208	ShortSellFlag	String	1	Indicator for short-sell authorization.	Y Short-sell allowed N Short-sell not allowed
209	CASFlag	String	1	Indicates whether Closing Auction Session (CAS) is applicable to the security	Y CAS applicable N CAS not applicable
210	CCASSFlag	String	1	Indicates whether or not the security is a CCASS security	Y CCASS security N Non CCASS security
211	DummySecurityFlag	String	1	Dummy Security Flag.	Y Dummy security N Normal security
212	TestSecurityFlag	String	1	Test Security Flag	Y Test security N Normal security
213	StampDutyFlag	String	1	Indicator for stamp duty requirement	Y Stamp duty required N Stamp duty not required
214	Filler	String	1		
215	ListingDate	UInt32	4	Date of security listing	The representation is YYYYMMDD Value is 19000101 for unknown listing date
219	DelistingDate	UInt32	4	Date of security delisting	The representation is YYYYMMDD. Value is 0 if no date exists.
223	FreeText	String	38	Free text associated to the security	Fixed length array of free text. When there is no free text, spaces will be present instead.
261	Filler	String	82		
Bonds Specific Data					
343	EFNFlag	String	1	EFN Indicator	Y EFN N Non-EFN
344	AccruedInterest	UInt32	4	Accrued interest of the security.	3 implied decimal places
348	CouponRate	UInt32	4	Coupon rate of a bond security	3 implied decimal places
352	Filler	String	42		
Warrants, Basket Warrants and Structured Product specific data					

Offset	Field	Format	Len	Description	Values
394	ConversionRatio	UInt32	4	Conversion ratio for Structured Product with stock underlying only	3 implied decimal places
398	StrikePrice	Int32	4	Strike price of the security.	3 implied decimal places
402	Filler	String	4		
406	MaturityDate	UInt32	4	Date of maturity of a warrant or structured security	The representation is YYYYMMDD
410	CallPutFlag	String	1	Indicator of whether the warrant or structured product is a call or put option	For Derivative Warrants/Basket Warrants: C Call P Put O Others For ELI & CBBC: C Bull P Bear / Rang
411	Style	String	1	Style of the basket warrant	A American style E European style <blank> Other
412	Filler	String	50		
462	NoUnderlyingSecurities	UInt16	2	Number of underlying security codes within this message	0 to 1 for Warrants and Structured Product
464	UnderlyingSecurityCode	UInt32	4	5-digit code identifying the underlying security.	
468	UnderlyingSecurityWeight	UInt32	4	The weight of the underlying security code.	3 implied decimal places
Total Length		464 + 8n _U			

(n_U = value of NoUnderlyingSecurities)

Note: PreviousClosingPrice may be set to 0, for example on the first day of listing (no existing previous closing price)

1.3 Liquidity Provider (13)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	13 Liquidity Provider
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	NoLiquidityProviders	UInt16	2	Number of liquidity providers within this message.	1 to 50
10	LPBrokerNumber	UInt16	2	Broker number of the liquidity provider	
Total Length		10 + 2n _T			

(n_T = value of NoLiquidityProviders)

1.4 Currency Rate (14)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	14 Currency Rate

Offset	Field	Format	Len	Description	Values
4	CurrencyCode	String	3	Currency code.	
7	Filler	String	1		
8	CurrencyFactor	UInt16	2	Currency factor conversion.	A non-zero value n means all price fields for this security should be interpreted as a value equal to the price multiplied by 10^n .
10	Filler	String	2		
12	CurrencyRate	UInt32	4	Currency rate	Rate, expressed in HKD for one foreign currency unit. 4 decimals implied.
Total Length			16		

2. Trading Session Status

The 2. Trading Session Status file is in binary format and contains only one type of messages – **TradingSessionStatus**. There is only one Trading Session Status file with filename MC02_All_YYYYMMDD, where YYYYMMDD is the date of the Trading Session Status file.

The layout of the Trading Session Status is as follows:

<RecordLength><PacketHeader><TradingSessionStatus>...<RecordLength><PacketHeader><TradingSessionStatus>...<RecordLength><PacketHeader><TradingSessionStatus>

Following is the message layout of the **RecordLength**

Offset	Field	Format	Len	Description
0	RecLen	UInt16	2	Size of the record (including this field)
Total length			2	

Following is the message layout of the **PacketHeader**

Offset	Field	Format	Len	Description
0	PktSize	UInt16	2	Size of the packet (including this field)
2	MsgCount	UInt8	1	Number of messages included in the packet
3	Filler	String	1	
4	SeqNum	UInt32	4	Sequence number of the first message in the packet
8	SendTime	UInt64	8	The number of nanoseconds since <i>January 1, 1970, 00:00:00 GMT</i> , precision is provided to the nearest millisecond.
Total length			16	

Followings are the message layouts of the **TradingSessionStatus**

2.1 Trading Session Status (20)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	20 Trading Session Status
4	MarketCode	String	4	Market segment identifier	MAIN GEM NASD ETS
8	TradingSessionID	UInt8	1	Identifies the trading session.	1 Day
9	TradingSessionSubID	UInt8	1	Trading session sub-identifier.	0 Day Close (DC) 1 Pre-trading (Order Input OI) 2 Opening or Opening Auction (Matching MA) 3 Continuous trading (Continuous CT) 4 Closing or Closing Auction [Closing Auction Session (CAS)] Matching (MA) 5 Post-trading [CAS] Order Input (OI) 7 Quiescent (Blocking BL) 100 Not Yet Open (NO) 101 No Cancel/Modification (NC) 102 Exchange Intervention (EI) 103 Close (CL) 104 Order Cancel (OC) 105 Reference Price Fixing [CAS] (RP) 106 No Cancellation [CAS]

Offset	Field	Format	Len	Description	Values
					(NW) 107 Random Close [CAS] (RC)
10	TradingSesStatus	UInt8	1	Status of the current trading session.	0 Unknown (for NO) 1 Halted (for BL, EI) 2 Open (for [POS] OI, [POS] NC, [POS] MA, CT, OC) 3 Closed (for CL) 5 Pre-Close (for [CAS] RP, [CAS] NW, [CAS] RC, [CAS] MA, [CAS] OI) 100 Day Closed (for DC)
11	TradingSesControlFlag	String	1	Indicates how control of trading session and sub-session transitions are performed.	'0' Automatic (Default) '1' Manual (this invalidates the normal schedule for the day)
12	Filler	String	4		
16	StartDateTime	UInt64	8	Start time of the trading status	The data is provided as number of nanoseconds since Unix epoch Jan 1st 1970. Set to 0 if no time is available.
24	EndDateTime	UInt64	8	End time of the trading status	The data is provided as number of nanoseconds since Unix epoch Jan 1st 1970. Set to 0 if no time is available.
Total Length			32		

3. Securities Full Order Book

The Securities Full Order Book file is in binary format and contains ten types of messages – **Trade**, **TradeCancel**, **AddOrder**, **ModifyOrder**, **DeleteOrder**, **IndicativeEquilibriumPrice**, **VCM Trigger**, **Reference Price**, **Order Imbalance** and **Security Status**. There are totally 9 files, each corresponds to an stock group. The filenames of the 9 Securities Full Order file are as follows:

MC30_All_YYYYMMDD – securities full order book file for stock group #1
 MC31_All_YYYYMMDD – securities full order book file for stock group #2
 MC32_All_YYYYMMDD – securities full order book file for stock group #3
 MC33_All_YYYYMMDD – securities full order book file for stock group #4
 MC34_All_YYYYMMDD – securities full order book file for stock group #5
 MC35_All_YYYYMMDD – securities full order book file for stock group #6
 MC36_All_YYYYMMDD – securities full order book file for stock group #7
 MC37_All_YYYYMMDD – securities full order book file for stock group #8
 MC38_All_YYYYMMDD – securities full order book file for stock group #9
 where YYYYMMDD is the date of the Securities Full Order Book file

The layout of the Securities Full Order Book is as follows:

<RecordLength><PacketHeader><SecuritiesFullOrderBook>...<RecordLength><PacketHeader><SecuritiesFullOrderBook>...<RecordLength><PacketHeader><SecuritiesFullOrderBook>

Following is the message layout of the **RecordLength**

Offset	Field	Format	Len	Description
0	RecLen	UInt16	2	Size of the record (including this field)
Total length			2	

Following is the message layout of the **PacketHeader**

Offset	Field	Format	Len	Description
0	PktSize	UInt16	2	Size of the packet (including this field)
2	MsgCount	UInt8	1	Number of messages included in the packet
3	Filler	String	1	
4	SeqNum	UInt32	4	Sequence number of the first message in the packet
8	SendTime	UInt64	8	The number of nanoseconds since <i>January 1, 1970, 00:00:00 GMT</i> , precision is provided to the nearest millisecond.
Total length			16	

<SecuritiesFullOrderBook> contains different combinations of the ten types of messages – **Trade**, **TradeCancel**, **AddOrder**, **ModifyOrder**, **DeleteOrder**, **IndicativeEquilibriumPrice**, **VCM Trigger**, **Reference Price**, **Order Imbalance** and **Security Status**. For example:

<Trade><TradeCancel><AddOrder><ModifyOrder><DeleteOrder><IndicativeEquilibriumPrice><VCM Trigger><Reference Price><Order Imbalance> or
<AddOrder><AddOrder><DeleteOrder><ModifyOrder><Trade><Trade>

Followings are the message layouts of the **Trade**, **TradeCancel**, **AddOrder**, **ModifyOrder**, **DeleteOrder**, **IndicativeEquilibriumPrice**, **VCM Trigger**, **Reference Price** and **Order Imbalance**.

3.1 Trade (50)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	50 Trade
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	TradeID	UInt32	4	Unique identifier per security for each trade performed within the trading system. The ID is reset for each trading day.	Starting from 1 , incrementing by 1 for each trade
12	Price	Int32	4	Price	3 implied decimal places
16	Quantity	UInt32	4	Number of shares	
20	TrdType	Int16	2	Public trade type.	0 Automatch normal (<space> 4 Late Trade (Off-exchange previous day) ("P") 22 Non-direct Off-Exchange Trade ("M") 100 Automatch internalized ("Y") 101 Direct off-exchange Trade ("X") 102 Odd-Lot Trade ("D")

Offset	Field	Format	Len	Description	Values
					103 Auction Trade (“U”) 104 Overseas Trade
22	Filler	String	2		
24	TradeTime	UInt64	8	Time of trade	The number of nanoseconds elapsed since midnight Coordinated Universal Time (UTC) of January 1, 1970 TradeTime precision is currently provided to the nearest second.
Total Length.....			32		

3.2 Trade Cancel (51)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	51 Trade cancel
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	TradeID	UInt32	4	Unique identifier per security for each trade performed within the trading system. The ID is reset for each trading day.	Starting from 1 , incrementing by 1 for each trade
Total Length.....			12		

3.3 Add Order (30)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	30 Add Order
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderID	UInt64	8	Unique identifier per security for each order performed within the trading system	Values may not be consecutive
16	Price	Int32	4	Price	3 implied decimal places
20	Quantity	UInt32	4	Number of shares	
24	Side	UInt16	2	Side of the order	0 Bid 1 Offer
26	OrderType	String	1	Order type	‘1’ Market ‘2’ Limit
27	Filler	String	1		
28	OrderBookPosition	Int32	4	Order rank information for the order position within the order book for each security	Integer
Total Length			32		

3.4 Modify Order (31)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	31 Modify Order
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderId	UInt64	8	Unique identifier per security for each order performed within the trading system	Values may not be consecutive
16	Quantity	UInt32	4	Number of shares	
20	Side	UInt16	2	Side of the order	0 Bid 1 Offer
22	Filler	String	2		
24	OrderBookPosition	Int32	4	Order rank information for the order position within the order book for each security	Integer
Total Length			28		

3.5 Delete Order (32)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	32 Delete Order
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderId	UInt64	8	Unique identifier per security for each order performed within the trading system	Values may not be consecutive
16	Side	UInt16	2	Side of the order	0 Bid 1 Offer
18	Filler	String	2		
Total Length			20		

3.6 Indicative Equilibrium Price (41)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	41 Indicative Equilibrium Price
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	Price	Int32	4	IEP	3 implied decimal places Value is 0 if IEP is not available
12	AggregateQuantity	UInt64	8	IEV	
Total Length			20		

3.7 VCM Trigger (23)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	23 VCM Trigger
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	CoolingOffStartTime	UInt64	8	Time when the cooling off period starts	The data is provided as number of nanoseconds since Unix epoch Jan 1st 1970, precision is provided to the nearest second.
16	CoolingOffEndTime	UInt64	8	Time when the cooling off period ends	The data is provided as number of nanoseconds since Unix epoch Jan 1st 1970, precision is provided to the nearest second.
24	VCMReferencePrice	Int32	4	Reference Price for the cooling off period	3 implied decimal places
28	VCMLowerPrice	Int32	4	Lower price in the price band allowed during the cooling off period	3 implied decimal places
32	VCMUpperPrice	Int32	4	Upper price in the price band allowed during the cooling off period	3 implied decimal places
Total Length			36		

3.8 Reference Price (43)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	43 Reference Price
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	ReferencePrice	Int32	4	Reference price of the security for order input	3 implied decimal places Value is 0 if the reference price is not available
12	LowerPrice	Int32	4	Lower price of the allowed price band for order input	3 implied decimal places 0 means N/A
16	UpperPrice	Int32	4	Upper price of the allowed price band for order input	3 implied decimal places 0 means N/A
Total Length			20		

3.9 Order Imbalance (56)

Offset	Field	Format	Length	Description	Values
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Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	43 Reference Price
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderImbalanceDirection	String	1	Indicates the imbalance direction when the matchable buy quantity and sell quantity at IEP are not equal	N Buy = Sell B Buy Surplus S Sell Surplus <space> Not applicable, i.e. when IEP is not available
9	Filler	String	1		
10	OrderImbalanceQuantity	UInt64	8	The absolute difference between the matchable buy quantity and the sell quantity at IEP. Value should be ignored if Order Imbalance Direction is <space>	
18	Filler	String	2		
Total Length			20		

3.10 Security Status (21)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	21 Security Status
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	SecurityTradingStatus	UInt8	1	Identifies the trading status of a security.	2 Trading Halt 3 Resume
9	Filler	String	3		
Total Length			12		

4. Securities Market Odd Lot Order

The Securities Market Odd Lot Order file is in binary format and contains two types of messages – **AddOddLotOrder**, and **DeleteOddLotOrder**. There are totally 9 files, each corresponds to an stock group. The filenames of the 9 Securities Market Odd Lot Order file are as follows:

MC70_All_YYYYMMDD – securities market odd lot order file for stock group #1
 MC71_All_YYYYMMDD – securities market odd lot order file for stock group #2
 MC72_All_YYYYMMDD – securities market odd lot order file for stock group #3
 MC73_All_YYYYMMDD – securities market odd lot order file for stock group #4
 MC74_All_YYYYMMDD – securities market odd lot order file for stock group #5
 MC75_All_YYYYMMDD – securities market odd lot order file for stock group #6
 MC76_All_YYYYMMDD – securities market odd lot order file for stock group #7
 MC77_All_YYYYMMDD – securities market odd lot order file for stock group #8

MC78_All_YYYYMMDD – securities market odd lot order file for stock group #9
where YYYYMMDD is the date of the Securities Market Odd Lot Order file

The layout of the Securities Market Odd Lot Order is as follows:

<RecordLength><PacketHeader><SecuritiesMarketOddLotOrder>...<RecordLength><PacketHeader><SecuritiesMarketOddLotOrder>...<RecordLength><PacketHeader><SecuritiesMarketOddLotOrder>

Following is the message layout of the **RecordLength**

Offset	Field	Format	Len	Description
0	RecLen	UInt16	2	Size of the record (including this field)
Total length			2	

Following is the message layout of the **PacketHeader**

Offset	Field	Format	Len	Description
0	PktSize	UInt16	2	Size of the packet (including this field)
2	MsgCount	UInt8	1	Number of messages included in the packet
3	Filler	String	1	
4	SeqNum	UInt32	4	Sequence number of the first message in the packet
8	SendTime	UInt64	8	The number of nanoseconds since <i>January 1, 1970, 00:00:00 GMT</i> , precision is provided to the nearest millisecond.
Total length			16	

<SecuritiesMarketOddLotOrder> contains different combinations of the two types of messages – **AddOddLotOrder** and **DeleteOddLotOrder**. For example:

<AddOddLotOrder><DeleteOddLotOrder><AddOddLotOrder><AddOddLotOrder> or
<AddOddLotOrder><AddOddLotOrder><AddOddLotOrder><AddOddLotOrder>

Followings are the message layouts of the **AddOddLotOrder** and **DeleteOddLotOrder**

4.1 Add Odd Lot Order (33)

Offset	Field	Format	Len	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	33 Add Odd Lot Order
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderId	UInt64	8	Unique identifier per security for each order performed within the trading system	Values may not be consecutive
16	Price	Int32	4	Price	3 implied decimal places
20	Quantity	UInt32	4	Number of shares	
24	BrokerID	UInt16	2	Integer identifier uniquely identifying the Broker	Integer

Offset	Field	Format	Len	Description	Values
26	Side	Uint16	2	Side of the order	<div>0 Bid</div> <div>1 Offer</div>
Total Length			28		

4.2 Delete Odd Lot Order (34)

Offset	Field	Format	Length	Description	Values
0	MsgSize	UInt16	2	Size of the message	
2	MsgType	UInt16	2	Type of message.	34 Delete Odd Lot Order
4	SecurityCode	UInt32	4	Uniquely identifies a security available for trading	5 digit security codes with possible values 1 – 99999
8	OrderID	UInt64	8	Unique identifier per security for each order performed within the trading system	Values may not be consecutive
16	BrokerID	UInt16	2	Integer identifier uniquely identifying the Broker	Integer
18	Side	UInt16	2	Side of the order	0 Bid 1 Offer
Total Length			20		