Data structure – present (from 5 December 2011)

The data provided in Bid and Ask Record – Main Board & GEM are presented in 2 types of files:

1) Bid and ask file; and
2) Stock information file.

The Bid and ask file is the core data file, while the stock information file provides static information on securities. The data files are provided in fixed length text format.

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

File name	Contents
ba_mb_*yyyymmdd*	Trade file for Main Board stocks for the trading day *yyyymmdd* (e.g. 20030402 for 2 April 2003)
ba_gem_*yyyymmdd*	Trade file for GEM (Growth Enterprise Market) stocks for the trading day *yyyymmdd*
mast_mb_*yyyymm*	Stock information file for Main Board stocks
mast_gem_*yyyymm*	Stock information file for GEM stocks

Important Notes

1. Bid and Ask Record provides changes only. That means, data value available if only it is different from the one previously provided.

2. Bid and ask records for a month are separated into daily files due to the data volume. However, the size of the daily file can be so huge that it cannot be processed by desktop PC software. It is recommended that subscribers use more powerful database software, such as SQL, to process the records.

1. Bid and ask file

Item no.	Field name	Layout	Description
1	STKCODE	Character 5 bytes	Code assigned to the stock. This code is not unique since codes assigned to delisted stocks can be re-used.
		Character 1 byte	
2	STK_ID	Character 9 bytes	Unique identifier assigned to the stock
		Character 1 byte	
3	DATE	Character 8 bytes	Date of the trading day. Format is YYYYMMDD where YYYY - year MM - month DD - day
		Character 1 byte	
4	TIME	Character 9 bytes	Time when the information was recorded. Format is HHMMSSTTT where HH - hour MM - minute SS - second TTT – thousandth of second
		Character 1 byte	
5	DATA_CODE	Character 2 bytes	To identify the data item. See data table code in Appendix 3 for possible values
		Character 1 byte	
6	DATA_VALUE	Numeric 16 bytes Picture is 9(12).999	Value of the data item identified by the above data code. This field will contain all “9”s, i.e. 999999999999.999 if the value overflows. For maximum value of each data code, see data code table in Appendix 3

Total data length 54 bytes

2. Stock information file

Item no.	Field name	Layout	Description
1	STKCODE	Character 5 bytes	Code assigned to the stock. This code is not unique since codes assigned to delisted stocks can be re-used.
		Character 1 byte	
2	STK_ID	Character 9 bytes	Unique identifier assigned to the stock
		Character 1 byte	
3	DATE	Character 8 bytes	Date of the trading day. Format is YYYYMMDD where YYYY - year MM - month DD - day
		Character 1 byte	
4	FULL_ID	Character 12 bytes	Unique identifier assigned to the stock, made up of the prefix 'HK', the above stock ID and a check digit
		Character 3 bytes	
6	FULL NAME	Character 60 bytes	Full name of stock
		Character 1 byte	
7	STATUS	Character 1 byte	To indicate active/non-active parallel trade counter ' ' - no parallel trade counter 'A' - active 'N' - non-active
		Character 1 byte	
8	TRAD_CURR	Numeric 2 bytes	Trading currency of stock See currency table in Appendix 1 for valid values
		Character 1 byte	
9	MERGE_TO	Character 5 bytes	Stock code of the parallel trade counter, applicable to stocks with parallel trade counter only Blank if no parallel trade counter
		Character 1 byte	

Item no.	Field name	Layout	Description
10	SE_TYPE	Character 4 bytes	Code assigned to indicate the type of securities See table in Appendix 2 for valid values

Total data length 116 bytes

APPENDIX 1

Currency table

Code	Description	Unit
00	Hong Kong Dollars	1
01	Australian Dollars	1
02	Austrian Schillings	1
03	Bangladesh Takas	1
04	Bahraini Dinars	1
05	Belgian Francs “Commercial”	1
06	Belgian Francs “Financial”	1
07	Brunei Dollars	1
08	Burmese Kyats	1
09	Canadian Dollars	1
10	Sri Lanka Rupees	1
11	Chinese Renminbi	1
12	Cypriot Pounds	1
13	Danish Kroners	1
14	Deutsche Marks	1
15	Dutch Guilders	1
16	Fiji Dollars	1
17	Finnish Markkas	1
18	French Francs	1
19	Indian Rupees	1
20	Indonesian Rupiahs	1
21	Italian Lire	1,000
22	Japanese Yen	1,000
23	Kuwaiti Dinars	1
24	Kenyan Shillings	1
25	Lebanese Pounds	1
26	Mauritius Rupees	1
27	Malaysian Dollars	1
28	New Zealand Dollars	1
29	Nigerian Naira	1
30	Norwegian Kroners	1
31	Omani Rials	1
32	Pakistan Rupees	1
33	Philippine Pesos	1
34	Portuguese Escudos	1
35	Qatar Riyals	1
36	Saudi Arabian Riyals	1

APPENDIX 1

Currency table (cont.)

Code	Description	Unit
37	Seychelles Rupees	1
38	Singapore Dollars	1
39	Sierra Leone Leones	1
40	South African Rands	1
41	South Korean Won	1
42	Spanish Pesetas	1
43	Sterling Pounds	1
44	Swedish Kroners	1
45	Swiss Francs	1
46	Thailand Bahts	1
47	U.A.E Dirhams	1
48	US Dollars	1
49	Irish Punt	1
50	Special Drawing Rights	1
51	Macau Patacas	1
52	Brazil Cruzeiros	1
53	ECU	1
54	Euro	1

APPENDIX 2

Types of securities

Code	Description
0101	Ordinary Shares
0102	Ordinary Shares - Investment Company
0201	Preference Shares
0301	Warrants - Equity Warrants
0302	Warrants - Equity Warrants Issued by Investment Company
0303	Warrants - Derivative Warrants for Stock
0304	Warrants - Derivative Warrants for Index
0305	Warrants - Derivative Warrants for Currency
0306	Warrants - Derivative Warrants for Mineral
0307	Equity Linked Instruments
0308	Callable Bull / Bear Contracts
0401	Debt Securities
0501	Unit Trusts
0601	Rights

APPENDIX 3

Data code table

Data Code	Description	Length	Maximum value
EP	Equilibrium price The price at which the maximum number of shares can be traded if matching occurs at that time during the pre-opening trading session and closing auction session	8	9999.999
EV	Equilibrium volume The number of shares that would be traded at the equilibrium price	12	999999999999
CA	Current ask price / Last ask price Current ask price is given if the primary sell queue (V1) > 0; last ask price if otherwise	8	9999.999
CB	Current bid price / Last bid price Current bid price is given if the primary buy queue (U1) > 0; last bid price if otherwise	8	9999.999
HP	Day-to-second highest price	8	9999.999
LP	Day-to-second lowest price	8	9999.999
NP / CP	Nominal price / Closing price The nominal price and the closing price are never available at the same time. Only the nominal price is available during the day until the last second whereupon it will be replaced by the closing price	8	9999.999
PC	Previous closing price	8	9999.999
RP	Last recorded price	8	9999.999
SU	Stock suspension indicator 0 = stock not suspended 1 = stock suspended	1	9
TS	Day-to-second shares traded	12	999999999999

APPENDIX 3

Data code table (cont.)

Data Code	Description	Length	Maximum value
TT	Day-to-second turnover	12	999999999999
U1	Primary buy queue length	3	999
U2	Secondary buy queue length	3	999
U3	Third buy queue length	3	999
U4	Fourth buy queue length	3	999
U5	Fifth buy queue length	3	999
U6	Sixth buy queue length	3	999
U7	Seventh buy queue length	3	999
U8	Eighth buy queue length	3	999
U9	Ninth buy queue length	3	999
U10	Tenth buy queue length	3	999
V1	Primary sell queue length	3	999
V2	Secondary sell queue length	3	999
V3	Third sell queue length	3	999
V4	Fourth sell queue length	3	999
V5	Fifth sell queue length	3	999
V6	Sixth sell queue length	3	999
V7	Seventh sell queue length	3	999
V8	Eighth sell queue length	3	999
V9	Ninth sell queue length	3	999
V10	Tenth sell queue length	3	999
X1	Primary buy queue quantity	8	99999999
X2	Secondary buy queue quantity	8	99999999
X3	Third buy queue quantity	8	99999999
X4	Fourth buy queue quantity	8	99999999
X5	Fifth buy queue quantity	8	99999999
X6	Sixth buy queue quantity	8	99999999

X7	Seventh buy queue quantity	8	99999999
X8	Eighth buy queue quantity	8	99999999
X9	Ninth buy queue quantity	8	99999999
X10	Tenth buy queue quantity	8	99999999
Y1	Primary sell queue quantity	8	99999999
Y2	Secondary sell queue quantity	8	99999999
Y3	Third sell queue quantity	8	99999999
Y4	Fourth sell queue quantity	8	99999999
Y5	Fifth sell queue quantity	8	99999999
Y6	Sixth sell queue quantity	8	99999999
Y7	Seventh sell queue quantity	8	99999999
Y8	Eighth sell queue quantity	8	99999999
Y9	Ninth sell queue quantity	8	99999999
Y10	Tenth sell queue quantity	8	99999999

APPENDIX 4

Spread Table – the Second Schedule of the Rules of the Exchange

Spread Table - Effective 24 July 2006

(applicable to all types of currencies)

Part A

All securities, other than those securities covered under Part B and/or Part C, shall be traded in accordance with the following scale of spreads:

Currency unit

From	0.01	to	0.25	______	0.001
Over	0.25	to	0.50	______	0.005
Over	0.50	to	10.00	______	0.010
Over	10.00	to	20.00	______	0.020
Over	20.00	to	100.00	______	0.050
Over	100.00	to	200.00	______	0.100
Over	200.00	to	500.00	______	0.200
Over	500.00	to	1,000.00	______	0.500
Over	1,000.00	to	2,000.00	______	1.000
Over	2,000.00	to	5,000.00	______	2.000
Over	5,000.00	to	9,995.00	______	5.000

Part B

Securities which are authorised by the Exchange to be traded in accordance with the scale of spreads in this Part B and all debt securities shall be traded in accordance with the following scale of spreads:

Currency unit
From 0.50 to 9,999.95 — 0.050

Part C

Exchange Traded Options shall be traded in accordance with the scale of spreads as set out in the Operational Trading Procedures.

Spread Table - From 04 July 2005 to 21 July 2006

(applicable to all types of currencies)

Part A

All securities, other than those securities covered under Part B and/or Part C, shall be traded in accordance with the following scale of spreads:

Currency unit

From	0.01	to	0.25	_____	0.001
Over	0.25	to	0.50	_____	0.005
Over	0.50	to	2.00	_____	0.010
Over	2.00	to	5.00	_____	0.025
Over	5.00	to	100.00	_____	0.050
Over	100.00	to	200.00	_____	0.100
Over	200.00	to	500.00	_____	0.200
Over	500.00	to	1,000.00	_____	0.500
Over	1,000.00	to	2,000.00	_____	1.000
Over	2,000.00	to	5,000.00	_____	2.000
Over	5,000.00	to	9,995.00	_____	5.000

Part B

Securities which are authorised by the Exchange to be traded in accordance with the scale of spreads in this Part B and all debt securities shall be traded in accordance with the following scale of spreads:

Currency unit
From 0.50 to 9,999.95 — 0.050

Part C

Exchange Traded Options shall be traded in accordance with the scale of spreads as set out in the Operational Trading Procedures.

Spread Table - Before 04 July 2005

Part A

For all securities, other than those securities which the Exchange has authorised to trade in accordance with the scale of spreads set out in Part B and Part C.

From HK$	0.01	to	HK$ 0.25	_____	HK$0.001
Over	0.25	to	0.50	_____	0.005
Over	0.50	to	2.00	_____	0.010
Over	2.00	to	5.00	_____	0.025
Over	5.00	to	30.00	_____	0.050
Over	30.00	to	50.00	_____	0.100
Over	50.00	to	100.00	_____	0.250
Over	100.00	to	200.00	_____	0.500
Over	200.00	to	1,000.00	_____	1.000
Over	1,000.00	to	9,995.00	_____	2.500

Part B

For all debt securities which are authorised by the Exchange to trade in accordance with the following scale of spreads.

From HK$0.50 to HK$9,999.95 - HK$0.050

Part C

For Exchange Traded Options, an Exchange Participant shall trade in accordance with the scale of spreads as set out in the Operational Trading Procedures.