## Updating history

| No. | Issue Date | Details |
|---|---|---|
| 1 | 2006-06 | First issue |
| 2 | 2013-09-30 | Include files for After-Hours Trading Session |
| 3 | 2019-04-01 | Change field name, layout and description in Bid and ask data file, layout in Product master file |

**Data structure – present ( from June 2006)**

The data provided in Bid and Ask Record – Equity Index Futures/Options are presented in 3 types of files:

1) Bid and ask data file;
2) Product master file; and
3) Contract master file.

The bid and ask data file is the core data file, while the latter two files provide static information on each contract covered in the tick-by-tick data file. For convenient data retrieval, the data files are provided in both fixed length text (.txt) and comma separated values (.csv). These 2 files only differ in format, but identical in data contents.

The data files are zipped into a single file for delivery. The following table lists out the data files to be found within the zipped file:

| File name | Contents |
|---|---|
| *Day Trading Session* | |
| *yyyymmdd*_01_BA.txt<br>*yyyymmdd*_01_BA.csv | Bid and ask data file for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the trading day *yyyymmdd* (e.g. 20060601 for 1 June 2006) |
| *yyyymmdd*_01_MP.txt<br>*yyyymmdd*_01_MP.csv | Product master file for Equity Index Futures/Options |
| *yyyymmdd*_01_MC.txt<br>*yyyymmdd*_01_MC.csv | Contract master file for Equity Index Futures/Options |
| *After-Hours Trading Session* | |
| *yyyymmdd*_01_BA_AHT.txt<br>*yyyymmdd*_01_BA_AHT.csv | Bid and ask data file of After-Hours Trading Session for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the trading day *yyyymmdd* (e.g. 20130702 for 2 July 2013)<br><br>The file for the last trading day of previous month is also available (Available from May 2013) |
| *yyyymmdd*_01_MP.txt<br>*yyyymmdd*_01_MP.csv<br>(last trading day of the previous month) | Product master file for Equity Index Futures/Options for the last trading of previous month (for After Hours Trading Session) (Available from May 2013) |
| *yyyymmdd*_01_MC.txt<br>*yyyymmdd*_01_MC.csv<br>(last trading day of the previous month) | Contract master file for Equity Index Futures/Options for the last trading of previous month (for After Hours Trading Session) (Available from May 2013) |

## 1. Bid and ask data file

| Item no. | Field name | Layout | Description |
|---|---|---|---|
| 1 | CLASS_CODE | Character<br>6 bytes | Unique identifier assigned to the product class, such as "HSI" for Hang Seng Index |
| 2 | FUT_OPT | Character<br>1 bytes | To indicate if "Futures" or "Options"<br>"F" - Futures<br>"O' - Options |
| 3 | EXPIRY_DATE | Character<br>8 bytes | Expiry date of the contract.<br>Format is YYYYMMDD where<br>YYYY – year<br>MM – month<br>DD – date<br>For example, "20031101" stand for 1 November 2003 |
| 4 | STRIKE_PRC | Numeric<br>17 bytes<br>Picture is<br>9(8).9(8) | Exercise price (or strike price) for "Options" contracts only<br>Zero for "Futures" contracts |
| 5 | CALL_PUT | Character<br>1 bytes | "Call" / "Put" type for "Options" contracts<br>"C" - Call Options<br>"P" - Put Options<br>" " - Futures |
| 6 | DATE | Character<br>8 bytes | Date of the trading day<br>Format is YYYYMMDD where<br>YYYY - year<br>MM - month<br>DD - day |
| 7 | TIME | Numeric<br>6 bytes | Time of the event which caused the change in bid/ask information.<br>Format is HHMMSS where<br>HH - hour<br>MM - minute<br>SS - second |
| 8 | BID_ASK | Character<br>1 bytes | To indicate if the best price presented in the next item (item 9) is a "Bid" price or an "Ask" Price<br>"B" - Bid<br>"A" - Ask |
| 9 | PRICE | Numeric<br>17 bytes<br>Picture is<br>9(8).9(8) | Best price recorded at the time |

| Item no. | Field name | Layout | Description |
|---|---|---|---|
| 10 | QUANTITY | Numeric<br>10 bytes<br>Picture is 9(10) | Total number of contracts associated with the best price at the time |

**Total data length** 75 bytes

## 2. Product master file

| Item no. | Field name | Layout | Description |
|---|---|---|---|
| 1 | CLASS_CODE | Character<br>6 bytes | Unique identifier assigned to the product class |
| 2 | FUT_OPT | Character<br>1 bytes | To indicate if "Futures" or "Options"<br>"F" - Futures<br>"O' - Options |
| 3 | DATE | Character<br>8 bytes | Reference date for the product details provided in this record.<br>Format is YYYYMMDD where<br>YYYY - year<br>MM - month<br>DD - day |
| 4 | PROD_NAME | Character<br>100bytes | Name of the derivatives product class. Normally the name of the underlying stock. |
| 5 | DATE_FROM | Character<br>8 bytes | Launch date of the derivatives product<br>Format is YYYYMMDD<br>BLANK for class codes generated as the result of capital adjustment of the underlying stock. |
| 6 | DATE_TO | Character<br>8 bytes | Last trading date of the derivatives product.<br>BLANK for active products. |
| 7 | EX_STYLE | Character<br>1 byte | Exercise style of the derivatives product<br>"A" - American<br>"E" - European |
| 8 | CURRENCY | Character<br>3 bytes | ▪ Currency of the multiplier if it is a dollar amount; OR<br>▪ Trading currency of the underlying stock if the multiplier is not a dollar amount<br>"HK " - Hong Kong Dollars<br>"US " - US Dollars<br>"YN " - Japanese Yen<br>"WO " - Korean Won<br>"NT " - New Taiwan Dollar |
| 9 | MULTIPLIER | Numeric<br>17 bytes<br>Picture is<br>9(8).9(8) | The standard contract size in the number of underlying shares |

**Total data length** 152 bytes

## 3. Contract master file

| Item no. | Field name | Layout | Description |
|---|---|---|---|
| 1 | CLASS_CODE | Character<br>6 bytes | Unique identifier assigned to the product class |
| 2 | FUT_OPT | Character<br>1 bytes | To indicate if "Futures" or "Options"<br>"F" - Futures<br>"O' - Options |
| 3 | EXPIRY_MTH | Character<br>4 bytes | Expiry month of the contract.<br>Format is YYMM where<br>YY - last 2 digit of the year<br>MM - month<br>For example, "0311" stands for November 2003 |
| 4 | STRIKE_PRC | Numeric<br>17 bytes<br>Picture is 9(8).9(8) | Exercise price (or strike price) for "Options" contracts only<br>Zero for "Futures" contracts |
| 5 | CALL_PUT | Character<br>1 bytes | "Call" / "Put" type for "Options" contracts<br>"C" - Call Options<br>"P" - Put Options<br>" " - Futures |
| 6 | DATE | Character<br>8 bytes | Reference date for the contract details provided in this record.<br>Format is YYYYMMDD where<br>YYYY - year<br>MM - month<br>DD - day |
| 7 | EXPIRY_DATE | Character<br>8 bytes | Expiry date of the contract<br>Format is YYYYMMDD |
| 8 | CON_SIZE | Numeric<br>17 bytes<br>Picture is 9(8).9(8) | Number of underlying shares represented by a contract |
| 9 | DATE_FROM | Character<br>8 bytes | First trading date of the contract<br>Format is YYYYMMDD |
| 10 | DATE_TO | Character<br>8 bytes | Last trading date of the contract<br>Format is YYYYMMDD |
| 11 | Filler | Character<br>20 bytes | Reserved field |

**Total data length** 98 bytes