Updating history

No.	Issue Date	Details
1	2013-10-15	First issue
2	2019-04-01	Change field name, layout and description in Tick-by-tick data file and layout in Product master file

This file specification applies to 2 data products:

- Tick-by-Tick Data – Stock Futures/Options (Monthly File); and
- Tick-by-Tick Data – Stock Futures/Options (Daily File)

Data structure – present (from 15 October 2013)

The data provided in Tick-by-Tick Data – Stock Futures/Options are presented in 3 types of files:

1) Tick-by-tick data file;
2) Product master file; and
3) Contract master file.

The tick-by-tick 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:

(Monthly File)

File name	Contents
*yyyymm*_02_TR.txt *yyyymm*_02_TR.csv	Tick-by-tick data file for Stock Futures/Options for the trading month *yyyymm* (e.g. 200304 for April 2003)
*yyyymm*_02_MP.txt *yyyymm*_02_MP.csv	Product master file for Stock Futures/Options
*yyyymm*_02_MC.txt *yyyymm*_02_MC.csv	Contract master file for Stock Futures/Options

(Daily File)

File name	Contents
*yyyymmdd*_02_TR.txt *yyyymmdd*_02_TR.csv	Tick-by-tick data file for Stock Futures/Options for the trading month *yyyymmdd* (e.g. 20130702 for 2 July 2013)
*yyyymmdd*_02_MP.txt *yyyymmdd*_02_MP.csv	Product master file for Stock Futures/Options
*yyyymmdd*_02_MC.txt *yyyymmdd*_02_MC.csv	Contract master file for Stock Futures/Options

1. Tick-by-tick data file

Item no.	Field name	Layout	Description
1	CLASS_CODE	Character 6 bytes	Unique identifier assigned to the product class, such as "HKB" for HSBC Holdings
2	FUT_OPT	Character 1 bytes	To indicate if "Futures" or "Options" "F" - Futures "O' - Options
3	EXPIRY_DATE	Character 8 bytes	Expiry date of the contract. Format is YYYYMMDD where YYYY – year MM – month DD – date For example, "20031101" stand for 1 November 2003
4	STRIKE_PRC	Numeric 17 bytes Picture is 9(8).9(8)	Exercise price (or strike price) for "Options" contracts only Zero for "Futures" contracts
5	CALL_PUT	Character 1 bytes	"Call" / "Put" type for "Options" contracts "C" - Call Options "P" - Put Options " " - Futures
6	DATE	Character 8 bytes	Date of the trading day Format is YYYYMMDD where YYYY - year MM - month DD - day
7	TIME	Character 6 bytes	Transaction timestamp Format is HHMMSS where HH - hour MM - minute SS - second
8	PRICE	Numeric 17 bytes Picture is 9(8).9(8)	Traded price of the transaction
9	QUANTITY	Numeric 8 bytes Picture is 9(8)	Number of contracts traded in the transaction

Item no.	Field name	Layout	Description
10	TRADE_TYPE	Character 3 bytes	000 – 002 : Normal trade 003 – 006 : Block trade 007 : Standard combination - order matching 020 : Delta Hedge (Trade in pre-market opening) 036 : Tailor-made combination 043 : Combo versus Outright

Total data length 75 bytes

2. Product master file

Item no.	Field name	Layout	Description
1	CLASS_CODE	Character 6 bytes	Unique identifier assigned to the product class
2	FUT_OPT	Character 1 bytes	To indicate if "Futures" or "Options" "F" - Futures "O' - Options
3	DATE	Character 8 bytes	Reference date for the product details provided in this record. Format is YYYYMMDD where YYYY - year MM - month DD - day
4	PROD_NAME	Character 100 bytes	Name of the derivatives product class. Normally the name of the underlying stock.
5	DATE_FROM	Character 8 bytes	Launch date of the derivatives product Format is YYYYMMDD BLANK for class codes generated as the result of capital adjustment of the underlying stock.
6	DATE_TO	Character 8 bytes	Last trading date of the derivatives product. BLANK for active products.
7	EX_STYLE	Character 1 byte	Exercise style of the derivatives product "A" - American "E" - European
8	CURRENCY	Character 3 bytes	▪ Currency of the multiplier if it is a dollar amount; OR ▪ Trading currency of the underlying stock if the multiplier is not a dollar amount "HK " - Hong Kong Dollars "US " - US Dollars "YN " - Japanese Yen "WO " - Korean Won "NT " - New Taiwan Dollar
9	MULTIPLIER	Numeric 17 bytes Picture is 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 6 bytes	Unique identifier assigned to the product class
2	FUT_OPT	Character 1 bytes	To indicate if "Futures" or "Options" "F" - Futures "O' - Options
3	EXPIRY_MTH	Character 4 bytes	Expiry month of the contract. Format is YYMM where YY - last 2 digit of the year MM - month For example, "0311" stands for November 2003
4	STRIKE_PRC	Numeric 17 bytes Picture is 9(8).9(8)	Exercise price (or strike price) for "Options" contracts only Zero for "Futures" contracts
5	CALL_PUT	Character 1 bytes	"Call" / "Put" type for "Options" contracts "C" - Call Options "P" - Put Options " " - Futures
6	DATE	Character 8 bytes	Reference date for the contract details provided in this record. Format is YYYYMMDD where YYYY - year MM - month DD - day
7	EXPIRY_DATE	Character 8 bytes	Expiry date of the contract Format is YYYYMMDD
8	CON_SIZE	Numeric 17 bytes Picture is 9(8).9(8)	Number of underlying shares represented by a contract
9	DATE_FROM	Character 8 bytes	First trading date of the contract Format is YYYYMMDD
10	DATE_TO	Character 8 bytes	Last trading date of the contract Format is YYYYMMDD
11	Filler	Character 20 bytes	Reserved field

Total data length 98 bytes