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 lay out in Product master file
3	2019-09-02	Change description of DATE_FROM in Contact Master File
4	2020-03-30	Add new field names COUNTRY CODE, MARKET CODE and COMMODITY CODE in Product Master file and Contract master file

This file specification applies to 2 data products:

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

Data structure – present (from 15 October 2013)

The data provided in Tick-by-Tick Data – Equity Index 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
Day Trading Session	
*yyyymm*_01_TR.txt *yyyymm*_01_TR.csv	Tick-by-tick data file for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the trading month *yyyymm* (e.g. 200304 for April 2003)
*yyyymm*_01_MP.txt *yyyymm*_01_MP.csv	Product master file for Equity Index Futures/Options
*yyyymm*_01_MC.txt *yyyymm*_01_MC.csv	Contract master file for Equity Index Futures/Options
After-Hours Trading Session	
*yyyymm*_01_TR_AHT.txt *yyyymm*_01_TR_AHT.csv	Tick-by-tick data file of After-Hours Trading Session for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the trading month *yyyymm* (e.g. 201305 for May 2013) (Available from April 2013)
*yyyymmdd*_01_TR_AHT.txt *yyyymmdd*_01_TR_AHT.csv (last trading day of the previous month)	Tick-by-tick data file of After-Hours Trading Session for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the last trading day of the previous month *yyyymmdd* (e.g. 20130430 for 30 April 2013) (Available from May 2013)

*yyyymmdd*_01_MP.txt *yyyymmdd*_01_MP.csv (last trading day of the previous month)	Product master file for Equity Index Futures/Options for the last trading day of the previous month (for After-Hours Trading Session) (Available from May 2013)
*yyyymmdd*_01_MC.txt *yyyymmdd*_01_MC.csv (last trading day of the previous month)	Contract master file for Equity Index Futures/Options for the last trading day of the previous month (for After-Hours Trading Session) (Available from May 2013)

(Daily File)

File name	Contents
Day Trading Session	
*yyyymmdd*_01_TR.txt *yyyymmdd*_01_TR.csv	Tick-by-tick data file for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the trading day *yyyymmdd* (e.g. 20130702 for 2 July 2013)
*yyyymmdd*_01_MP.txt *yyyymmdd*_01_MP.csv	Product master file for Equity Index Futures/Options
*yyyymmdd*_01_MC.txt *yyyymmdd*_01_MC.csv	Contract master file for Equity Index Futures/Options
After-Hours Trading Session	
*yyyymmdd*_01_TR_AHT.txt *yyyymmdd*_01_TR_AHT.csv (previous trading day)	Tick-by-tick data file of After-Hours Trading Session for Equity Index Futures/Options (e.g. Hang Seng Index Futures) for the previous trading day *yyyymmdd* (e.g. 20130702 for 2 July 2013)
*yyyymmdd*_01_MP.txt *yyyymmdd*_01_MP.csv (previous trading day)	Product master file for Equity Index Futures/Options for the previous trading day (for After Hours Trading Session)
*yyyymmdd*_01_MC.txt *yyyymmdd*_01_MC.csv (previous trading day)	Contract master file for Equity Index Futures/Options for the previous trading day (for After Hours Trading Session)

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 "HSI" for Hang Seng Index
2	FUT_OPT	Character 1 bytes	To indicate if "Futures" or "Options" "F" – Futures "O' – Options
3	EXPIRY_DATE	Character 8bytes	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
10	COUNTRY CODE	Numeric 3 bytes Picture is 9(3)	Country code as country identifier of the product in HKATS

Item no.	Field name	Layout	Description
11	MARKET CODE	Numeric 4 bytes Picture is 9(4)	Market code of the product in HKATS
12	COMMODITY CODE	Numeric 6 bytes Picture is 9(6)	Commodity code as identifier of the product's underlying in HKATS

Total data length 165 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	▪ For weekly options, it is the launch date of the contract ▪ For others, it is the 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
12	COUNTRY CODE	Numeric 3 bytes Picture is 9(3)	Country code as country identifier of the product in HKATS

Item no.	Field name	Layout	Description
13	MARKET CODE	Numeric 4 bytes Picture is 9(4)	Market code of the product in HKATS
14	COMMODITY CODE	Numeric 6 bytes Picture is 9(6)	Commodity code as identifier of the product's underlying in HKATS

Total data length 111 bytes