



S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

ORION DERIVATIVES

Reference n°: 20150722 – 26031 – 26470 – 28000

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Reference 20150722 – 26031 – 26470 – 28000
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FEEDOS™ ORION DERIVATIVES FEED DESCRIPTION

As part of S&P Capital IQ Real-Time Solutions FeedOS™ documentation, this feed description provides you with details about the types of data broadcast on the ORION DERIVATIVES market data stream, their possible values and current FeedOS technical implementation.

The topics this feed description covers include:

- [1. Referential Data](#)
- [2. Quotation Data](#)
- [3. Closing Price](#)
- [4. Multi-Session Kinematics](#)
- [5. Finding the Latest Information.](#)

1. Referential Data

The following sections describe the characteristics of the referential data on the ORION DERIVATIVES market data stream, in terms of:

- [1.1. Available Markets and Branches](#)
- [1.2. Types of Instruments.](#)

1.1. Available Markets and Branches

This section details the list of [Markets](#) and [Branches](#) available on the ORION DERIVATIVES market data stream.

1.1.1. Markets

The ORION DERIVATIVES market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the ORION DERIVATIVES market data stream

FeedOS Market ID	Market
XHKF	Hong Kong Futures Exchange

The following example shows the complete list of markets available on the ORION DERIVATIVES market data stream and their IDs, returned by the dumps command:

```
MARKETS
market # 109      CC=HK/HONG KONG/HONG KONG, DESCR=HONG KONG FUTURES EXCHANGE LTD.,
WEB=www.hkfe.com
  MIC = XHKF
  TimeZone = Asia/Hong_Kong
  Country = CN
  NbMaxInstruments = 2000000
```

1.1.2. Branches

The example below shows the complete list of branches available on the ORION DERIVATIVES market data stream for each market, returned by the dumps command. Each branch displays the following details: FOSMarketID, SecurityType, CFICode and Quantity (of instruments):

```
BRANCHES
{ XHKF FUT  FCECSO } qty: 50
{ XHKF FUT  FFCCSO } qty: 11
{ XHKF FUT  FFDPSO } qty: 3
{ XHKF FUT  FFICSO } qty: 65
{ XHKF FUT  FFNCSO } qty: 35
{ XHKF FUT  FFSCSM } qty: 337
{ XHKF MLEG SOXXXX } qty: 850
{ XHKF MLEG SWSXXX } qty: 40
{ XHKF MLEG SXXXXX } qty: 1429
{ XHKF OPT  OCASCS } qty: 17887
{ XHKF OPT  OCEICS } qty: 1566
{ XHKF OPT  OPASCS } qty: 17887
{ XHKF OPT  OPEICS } qty: 1574
```

1.2. Types of Instruments

The following sections describe the instruments available on the ORION DERIVATIVES market data stream, according to their type:

- [1.2.1. Options](#)
- [1.2.2. Futures](#)
- [1.2.3. Multilegs.](#)

1.2.1. Options

The sample below illustrates the details of an option:

```
instr # 109/1040160 = 229629728
  PriceCurrency      string{HKD}
  Symbol             string{CKH162.50I5}
  Description        string{CKH HOLDINGS CKH162.50I5}
  SecurityType       string{OPT}
  StdMaturity        string{20150929}
  StrikePrice        float64{162.5}
  FOSMarketId        XHKF
  Factor             float64{500}
  ContractMultiplier float64{500}
  CFICode            string{OCASCS}
  MarketSegmentID    string{Stock Options}
  InternalCreationDate Timestamp{2015-02-16 22:00:19:759}
  InternalModificationDate Timestamp{2015-03-17 22:00:20:086}
  InternalSourceId    uint16{254}
  InternalAggregationId uint16{254}
  InternalEntitlementId int32{1039}
  LocalCodeStr        string{CKH162.50I5}
  ForeignFOSMarketId  XHKF
  ForeignMarketId     string{XHKF}
  PriceIncrement_static float64{0.01}
  MaturityYear        uint16{2015}
  MaturityMonth       uint8{9}
  MaturityDay         uint8{29}
  OperatingMIC        string{XHKF}
```

1.2.2. Futures

The sample below illustrates the details of a future:

```
instr # 109/1045742 = 229635310
  PriceCurrency      string{HKD}
  Symbol             string{BCMZ5}
  Description         string{BANK OF COMMUNICATIONS BCMZ5}
  SecurityType       string{FUT}
  StdMaturity        string{20151230}
  FOSMarketId        XHKF
  Factor             float64{1000}
  ContractMultiplier float64{1000}
  CFICode            string{FFSCSM}
  MarketSegmentID    string{Stock Futures}
  InternalCreationDate Timestamp{2015-03-30 22:01:06:067}
  InternalModificationDate Timestamp{2015-04-07 22:01:05:872}
  InternalSourceId    uint16{254}
  InternalAggregationId uint16{254}
  InternalEntitlementId int32{1039}
  LocalCodeStr        string{BCMZ5}
  ForeignFOSMarketId   XHKF
  ForeignMarketId      string{XHKF}
  PriceIncrement_static float64{0.01}
  MaturityYear         uint16{2015}
  MaturityMonth        uint8{12}
  MaturityDay          uint8{30}
  OperatingMIC         string{XHKF}
```

1.2.3. Multilegs

The sample below illustrates the details of a multileg:

```
instr # 109/1046930 = 229636498
  PriceCurrency      string{HKD}
  Symbol             string{HHIK5/U5}
  Description         string{HANG SENG CHINA ENTERPRISES IDX. HHIK5/U5}
  SecurityType       string{MLEG}
  FOSMarketId        XHKF
  CFICode            string{SOXXXX}
  NbLegs             uint8{2}
  MarketSegmentID    string{H-Shares Index Futures / Options}
  InternalCreationDate Timestamp{2015-03-30 22:01:16:104}
  InternalModificationDate Timestamp{2015-04-07 22:01:15:975}
  InternalSourceId    uint16{254}
  InternalAggregationId uint16{254}
  InternalEntitlementId int32{1039}
  LocalCodeStr        string{HHIK5/U5}
  ForeignFOSMarketId   XHKF
  ForeignMarketId      string{XHKF}
  PriceIncrement_static float64{1}
  MaturityYear         uint16{2015}
  MaturityMonth        uint8{9}
  MaturityDay          uint8{29}
  OperatingMIC         string{XHKF}
  LegFOSInstrumentCode  uint32{229627209}
  LegFOSInstrumentCode_1 uint32{229636087}
  LegRatioQty          float64{1}
  LegRatioQty_1        float64{1}
  LegFIXSide           '1'=Buy
  LegFIXSide_1         '2'=Sell
```

2. Quotation Data

The sections below describe the characteristics of the quotation data on the ORION DERIVATIVES market data stream, in terms of:

- [2.1. Quotation Values](#)
- [2.2. TradingStatus](#)
- [2.3. Specific Quotation Tags](#)
- [2.4. MBL and MBO Data.](#)

2.1. Quotation Values

The example below shows the possible values of an instrument on the ORION DERIVATIVES market data stream:

```
-- 109/20738
  BID: 24582      1      @1
  ASK: 24656      1      @1
  LastPrice              float64{24615}
  LastTradeQty           float64{1}
  DailyHighPrice         float64{24649}
  DailyLowPrice          float64{24586}
  DailyTotalVolumeTraded float64{44815}
  DailyTotalAssetTraded  float64{48475741}
  LastTradePrice         float64{24615}
  LastTradeTimestamp     Timestamp{2015-04-06 14:59:58}
  InternalDailyOpenTimestamp Timestamp{2015-04-08 03:45:10:293}
  InternalDailyCloseTimestamp Timestamp{2015-04-08 03:40:40:188}
  InternalDailyHighTimestamp Timestamp{2015-04-08 03:50:27:877}
  InternalDailyLowTimestamp Timestamp{2015-04-08 04:19:03:556}
  InternalPriceActivityTimestamp Timestamp{2015-04-08 05:34:01:647}
  TradingStatus          18=NotAvailableForTrading
  TradingSessionId       int8{1}
  LastOffBookTradePrice  float64{24625}
  LastOffBookTradeQty    float64{12}
  LastOffBookTradeTimestamp Timestamp{2015-04-06 08:10:37}
  SessionTotalOffBookAssetTraded float64{0}
  SessionTotalOffBookVolumeTraded float64{0}
  SessionTotalVolumeTraded float64{1969}
  SessionOpeningPrice    float64{24637}
  PreviousSessionClosingPrice float64{24648}
  SessionHighPrice       float64{24649}
  SessionLowPrice        float64{24586}
  SessionTotalAssetTraded float64{48475741}
  DailyOpeningPrice      float64{24637}
  DailySettlementPrice   float64{24648}
  PreviousDailyTotalVolumeTraded float64{42846}
  PreviousDailyTotalAssetTraded float64{1056144833}
  PreviousDailyClosingPrice float64{24648}
  PreviousBusinessDay    Timestamp{2015-04-08}
  CurrentBusinessDay     Timestamp{2015-04-08}
  DailyTotalOffBookVolumeTraded float64{0}
  DailyTotalOffBookAssetTraded float64{0}
  OpenInterest           float64{40980}
  InternalLastAuctionTimestamp Timestamp{2015-04-08 03:20:38:480}
  PriceActivityMarketTimestamp Timestamp{2015-04-06 21:04:47:741}
  SettlementPriceDate    Timestamp{2015-04-08}
  OpenInterestDate       Timestamp{2015-04-08}
  SettlementPriceType     char{a}
  MARKET_HK_TradingState string{CL_Start}
```

For more details about the fields and tags available in quotation data type, and their possible values, see *FeedOS Quotation Tags Guide*.

2.2. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **TradingStatus** in the ORION DERIVATIVES market data stream are disseminated via FeedOS data stream in *Other Values*:

- in the callback carrying the Level1 event `notif_TradeEventExt()`, for C++
- in the event handler `TradeEventExtEventHandler`, for C#
- in the callback carrying the Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag `TradingStatus` is described in the table below:

Table 2 Trading Status of the ORION DERIVATIVES market data stream – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradingStatus	FeedOS tag name.
Numeric ID	9100	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	Enum	Enumeration data type.
Format	<i>[Exchange specific value]</i>	An exchange specific value , as described below, concerning the characteristics of the trading status.
Possible Values	2	Trading Halt
	16	Trade Dissemination Time
	17	Ready to Trade
	18	Not Available for Trading
	21	Pre-Open

2.3. Specific Quotation Tags

The following section describe the specific quotation tags available on the ORION DERIVATIVES market data stream:

- [2.3.1. Trade Conditions](#)
- [2.3.2. Other Values.](#)

2.3.1. Trade Conditions

The following sections describe the trade conditions available on the ORION DERIVATIVES market data stream:

- [2.3.1.1. TradeCondition](#)

2.3.1.1. TradeCondition

Each time a trade occurs, the values of the quotation tag **TradeCondition** conveyed on the ORION DERIVATIVES market data stream are disseminated via FeedOS data stream in *Context* to identify the particular condition applicable to a trade:

- in the callback carrying the Level1 event `notif_TradeEventExt()`, for C++
- in the event handler `TradeEventExtEventHandler`, for C#

- in the callback carrying the Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag `TradeCondition` is described in the table below:

Table 3 TradeCondition – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradeCondition	FeedOS tag name.
Numeric ID	277	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	String	String data type.
Format	<i>[Exchange Specific Value]</i>	An exchange specific value , detailing the particular condition applicable to a trade.
Possible Values	X	Cross Trade

2.3.2. Other Values

The following sections describe the specific quotation tags available on the ORION DERIVATIVES market data stream:

- [2.3.2.1. SettlementPriceType](#)
- [2.3.2.2. MARKET_HK_TradingState](#).

2.3.2.1. SettlementPriceType

The values of the quotation tag `SettlementPriceType` conveyed on the ORION DERIVATIVES market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the type of settlement price:

- in the callback carrying the Level1 event `notif_TradeEventExt()`, for C++
- in the event handler `TradeEventExtEventHandler`, for C#
- in the callback carrying the Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag `SettlementPriceType` is described in the following table:

Table 4 SettlementPriceType – technical implementation in FeedOS

Component	Value	Description
Tag Name	SettlementPriceType	FeedOS tag name.
Numeric ID	9383	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Char	Timestamp data type.
Format	<i>[Exchange Specific Value]</i>	An exchange specific value , indicating the type of settlement price.
Possible Values	a	Official – Explicit Official Daily Settlement Price, as distributed by the exchange.
	b	Preliminary – Settlement Price subject to change until the Official Daily Settlement Price is published.
	z	Manual – Settlement Price disseminated manually (in case of a correction).
	0	Undefined

2.3.2.2. MARKET_HK_TradingState

The values of the quotation tag **MARKET_HK_TradingState** conveyed on the ORION DERIVATIVES market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the original trading state value sent by the exchange:

- in the callback carrying the Level1 event `notif_TradeEventExt()`, for C++
- in the event handler `TradeEventExtEventHandler`, for C#
- in the callback carrying the Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag **MARKET_HK_TradingState** is described in the following table:

Table 5 MARKET_HK_TradingState – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_HK_TradingState	FeedOS tag name.
Numeric ID	15010	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	String	Timestamp data type.
Format	<i>[Exchange specific value]</i>	An exchange specific value , indicating the original trading state value sent by the exchange.
Possible Values	OPENALLOC	Open Allocation Session – Markets with Pre-market Opening Period
	CLOSE	Market Closed – Markets not tradable in T+1 Session
	OPEN	Market Open – All markets
	PREOPEN	PreOpen Session – Markets with Pre-market Opening Period
	PREOPENALLOC	PreOpen Allocation Session – Markets with Pre-market Opening Period
	PAUSE	Market Pause – All markets
	PRE_MKT_ACT	PreMarket Activities – Markets without Pre-market Opening Period
	CL_START	Clearing Session Start – Markets tradable in T+1 Session
	CL_CLOSE	Clearing Session Close – All markets
	AHT_CLOSE	AHFT Market Closed – Markets tradable in T+1 Session
	AHT_CLR_INFO	AHFT Reset Price Information – Markets tradable in T+1 Session
	AHT_INACT_T_ ORDER	AHFT Inactive Non T+1 Order – Markets tradable in T+1 Session
	AHT_NEXT_DA Y	AHFT Reset Price Information for the Next Business Day – Markets tradable in T+1 Session
	AHT_OPEN	AHFT Market Open – Markets tradable in T+1 Session
	AHT_OPEN_PL	AHFT Market Open – Markets tradable in T+1 Session with price limit control enabled
	AHT_PRE_MKT_ACT	AHFT PreMarket Activities – Markets tradable in T+1 Session
	OPEN_PL	Market Open – Markets enabled with price limit control
	CLOSE_TODAY	Market Closed for Today Trading – Markets tradable in T+1 Session
	OPEN_DPL	Market Open – Markets enabled with dynamic price banding mechanism
	FAILOVER	Site Failover – All markets

2.4. MBL and MBO Data^{*}

The MBL book has a 10-level depth and a special limit at the 11th level with a price equal to UNQUOTED. This limit represents the aggregation of all the limits beyond the 10th. There is no MBO.

3. Closing Price

The closing price is the last trade price upon close, as provided by the exchange. If the instrument has an auction phase, the market sends the last auction price, which becomes the closing price. When a stock splits, the closing price is adjusted after the closing. The settlement price is handled when provided by the market.

4. Multi-Session Kinematics

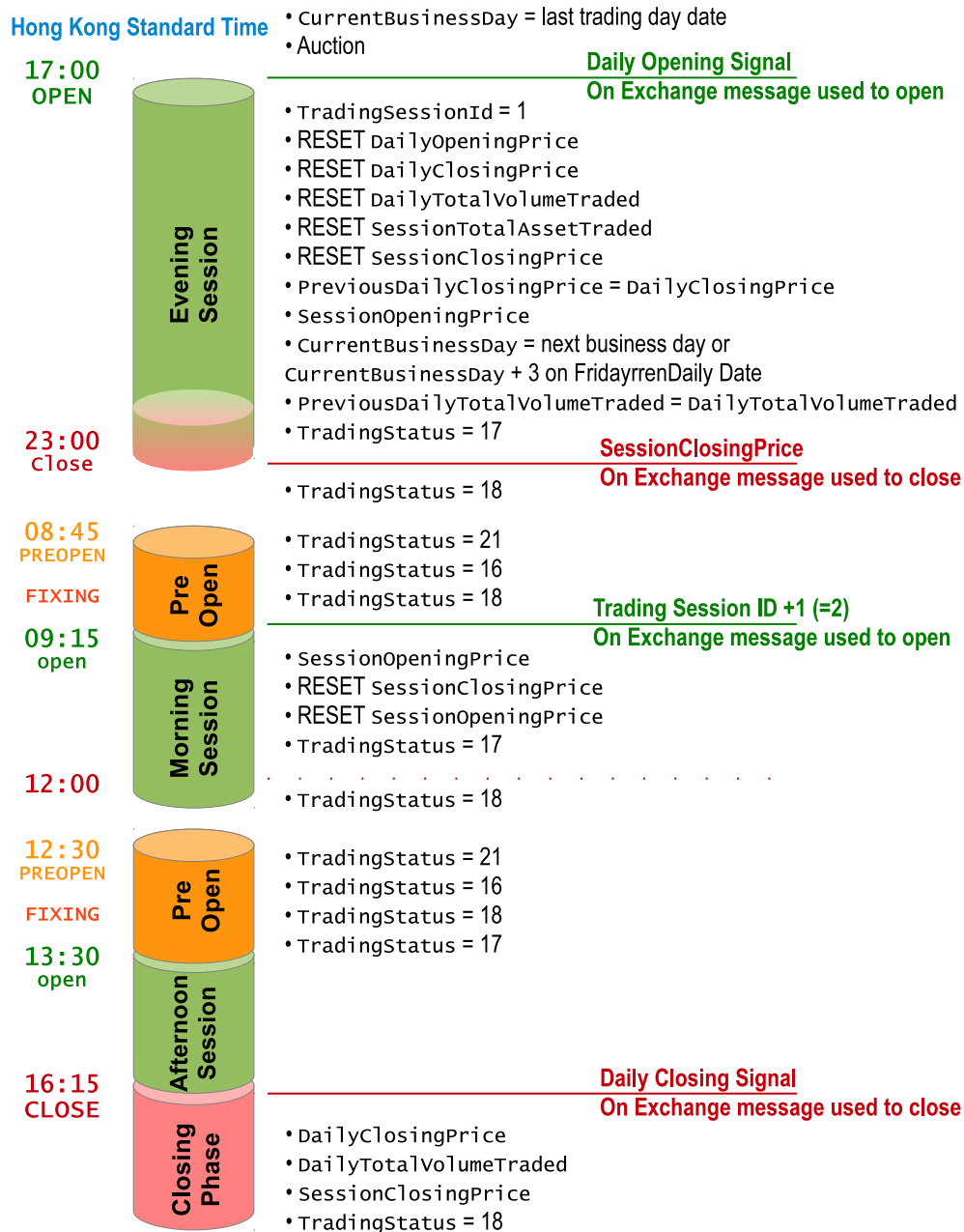
The following segments have multi-session kinematics:

- HangSengIndexFuturesAndOptions
- HSharesIndexFuturesAndOptions
- MiniHangSengIndexFuturesAndOptions
- RenminbiCurrencyFutures
- AsiaCommoditiesFutures
- ThermalCoalFutures.

The diagram below describes the main trading phases and the update mechanism of the tags available for a HSI Future available on the ORION DERIVATIVES market data stream:

^{*} The MBL and MBO data may not be included by default in your Level1 data subscription, but sold separately. Depending on your contract, additional terms, conditions and fees may apply. For more details about the subscription options, please contact S&P Capital IQ Real-Time Solutions.

Figure 5-1 Example of tags update mechanism for a HSI Future on the ORION DERIVATIVES market data stream in Hong Kong Standard Time



5. Finding the Latest Information

For the latest documentation and product updates, additional support and training, please contact our support services one of the following ways:

- E-mail: rts-support@spcapitaliq.com
- Web: <https://support.quanthouse.com>