QuantFEED® Developer's Notice

ORION EQUITIES – Feed Update

Reference n°: 19525 – 20901 – 20140521

Effective as of: 09 June 2014

Action required from users: Attention Required

S&P CAPITAL IQ

McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 19525 – 20901 – 20140521
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Corporate Headquarters
S&P Capital IQ Real-Time Solutions (QuantHouse®)
52 Rue de la Victoire
75009 Paris
France
Tel: +33 (0) 1 73 02 32 11
Fax: +33 (0) 1 73 02 32 12

US Offices

55 Water Street, 44th floor	130 East Randolph
New York, NY 10041	One Prudential Plaza, Suite 2900
United States of America	Chicago, IL 60601
Tel: +1-(212)-438-4346	United States of America
	Tel: +1-(312)-233-7129

UK Office / **Singapore Office**

UK Office	**Singapore Office**
20 Canada Square	12 Marina Boulevard
Canary Wharf	#23-01 Marina Bay
London E14 5LH	Financial Centre Tower 3
United Kingdom	Singapore 018982
Tel: +44 (0) 203 107 1676	Tel: +65 6530 6546

www.quanthouse.com

UPDATE OF THE ORION EQUITIES MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the ORION EQUITIES market data stream, S&P Capital IQ Real-Time Solutions has decided to enhance the content of QuantFEED®.

This developer's notice contains late-breaking information about the implementation of this modification in your applications, which may not be included otherwise in the published documentation. The topics this notice covers include:

- 1. Update Summary
- 2. Functional Description
- 3. QuantFEED® Technical Implementation
- 4. Finding the Latest Information.

1. Update Summary

Table 1   Current update summary

Notice Reference	19525 – 20901 – 20140521
Exchanges	ORION EQUITIES
Concerned MICs	XGEM, XHKG
Internal Source ID	224
Effective Date	**2014-06-09**
Impact	• Update of the Referential Tags • Update of the Quotation Tags • Update of the Quotation Context Tags
Action required	**Attention Required**

2. Functional Description

Effective Monday, **June 09, 2014**, S&P Capital IQ Real-Time Solutions enhances the content of the referential, quotation and quotation context data to accommodate the new information disseminated on the ORION EQUITIES market data stream, as described below:

- 2.1. Changes to the Referential Data
- 2.2. Changes to the Quotation Data
- 2.3. Changes to the Quotation Context Data.

2.1. Changes to the Referential Data

S&P Capital IQ Real-Time Solutions **updates** the values disseminated by the referential tags below to accommodate the information broadcast on the ORION EQUITIES market data stream:

Table 2   Referential tags added on the ORION EQUITIES market data stream

Tag Name	Numeric ID	Type
SegmentMIC (see page 4)	9534	String

Below is an example of the current implementation of the updated (in blue) referential tags:

```
instr # 108/1196 = 226493612
    PriceCurrency             string{HKD}
    Symbol                    string{8181}
    Description               string{KONGSHUMUNION}
    SecurityType              string{CS}
    FOSMarketId               XGEM
    CFICode                   string{ESXXXX}
    RoundLot                  float64{8000}
    SecurityGroup             string{GEM}
    InternalCreationDate      Timestamp{2013-10-10 18:03:58:816}
    InternalModificationDate  Timestamp{2014-05-22 12:52:31:599}
    InternalSourceId          uint16{99}
    LocalCodeStr              string{8181}
    ISIN                      string{KYG5310M1087}
    PriceIncrement_dynamic_TableId    uint32{14680164}
    MBLLayersDesc             string{0}
    OperatingMIC              string{XHKG}
    SegmentMIC                string{XGEM}
    ShortSellEligibleFlag     bool{False}
    MARKET_HK_ExchangeRate    float64{1}
```

2.2. Changes to the Quotation Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation tags below to accommodate the information broadcast on the ORION EQUITIES market data stream:

Table 3   Quotation tags added on the ORION EQUITIES market data stream

Tag Name	Numeric ID	Type
InternalDailyClosingPriceType	9155	Char

Below is an example of the current implementation of the newly added (in green) quotation tags:

```
InstrumentStatusL1
-- 110/35693
      BID: 111.8      7500     @4
      ASK: 111.9      38000    @4
      LastPrice                     float64{111.9}
      LastTradeQty                  float64{500}
      DailyHighPrice                float64{113.8}
      DailyLowPrice                 float64{110}
      DailyTotalVolumeTraded        float64{21877834}
      DailyTotalAssetTraded         float64{2461080732}
      LastTradePrice                float64{111.9}
      LastTradeTimestamp            Timestamp{2014-07-21 07:59:58}
      InternalDailyOpenTimestamp    Timestamp{2014-07-21 01:20:00:041}
      InternalDailyCloseTimestamp   Timestamp{2014-07-21 08:00:00:028}
      InternalDailyHighTimestamp    Timestamp{2014-07-21 02:08:05:428}
      InternalDailyLowTimestamp     Timestamp{2014-07-21 01:31:50:711}
      InternalPriceActivityTimestamp  Timestamp{2014-07-21 08:00:00:022}
      TradingStatus                 18=NotAvailableForTrading
      TradingSessionId              int8{2}
      LastOffBookTradePrice         float64{111.85}
      LastOffBookTradeQty           float64{500}
      LastOffBookTradeTimestamp     Timestamp{2014-07-21 07:57:34}
      SessionTotalOffBookAssetTraded  float64{10427550}
      SessionTotalOffBookVolumeTraded float64{93000}
      PriorSessionsTotalAssetTraded   float64{1543006041.5}
      PriorSessionsTotalVolumeTraded  float64{13683679}
      PriorSessionsTotalOffBookAssetTraded   float64{17634792.6}
      PriorSessionsTotalOffBookVolumeTraded  float64{156973}
      SessionTotalVolumeTraded      float64{8194155}
      SessionOpeningPrice           float64{112.2}
      SessionHighPrice              float64{112.7}
      SessionLowPrice               float64{111}
      SessionVWAPPrice              float64{112.497}
      SessionTotalAssetTraded       float64{918074690.5}
      SessionClosingPrice           float64{111.7}
      DailyOpeningPrice             float64{111.2}
      DailyClosingPrice             float64{111.7}
      CurrentBusinessDay            Timestamp{2014-05-21}
      DailyTotalOffBookVolumeTraded float64{249973}
      DailyTotalOffBookAssetTraded  float64{28062342.6}
      InternalDailyClosingPriceType char{a}
      InternalLastAuctionTimestamp  Timestamp{2014-07-21 01:19:58:693}
      PriceActivityMarketTimestamp  Timestamp{2014-07-21 08:00:00:022}
      MARKET_HK_TradingState        string{DC}
      MARKET_HK_ShortSellSharesTraded float64{1973000}
      MARKET_HK_ShortSellTurnover   float64{222067050}
```

2.3. Changes to the Quotation Context Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation context tags below to accommodate the information broadcast on the ORION EQUITIES market data stream:

Table 4   Quotation tags added on the ORION EQUITIES market data stream

Tag Name	Numeric ID	Type
TradeCondition	277	String

Below is an example of the current implementation of the newly added (in green) quotation tags:

```
"TE (TradeEvent) : MARKET_TIME INSTRUMENT LAST_PRICE TRADE_QTY BID_PRICE BID_QTY ASK_PRICE
ASK_QTY *CONTENT_MASK* *FLAGS*"
"VU (ValuesUpdate) : SERVER_TIME INSTRUMENT VALUES..."
"SI (TradeEvent) *SIGNAL* : SERVER_TIME INSTRUMENT SIGNAL LAST_PRICE"

TE  2014-05-21 01:30:05:000 230689120  9.03    558      *  *  *  *   L
TradeCondition=g=split_trade,TradeID=82
TE  2014-05-21 01:30:05:000 230715640  6.72    1000     *  *  *  *   H   TradeID=4
```

3. QuantFEED® Technical Implementation

The following sections describe the technical implementation of the new or updated tags:

- 3.1. OperatingMIC and SegmentMIC

- 3.2. InternalDailyClosingPriceType

- 3.3. TradeCondition.

3.1. OperatingMIC and SegmentMIC

The values of the referential tags **OperatingMIC** and **SegmentMIC** conveyed on the ORION EQUITIES market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the parent and child MIC.

QuantFEED® implementation of the values currently available for the tags OperatingMIC and SegmentMIC is shown below (existing values are in black, newly added values are in green, and removed values are in ~~crossed out red~~)::

Table 5   OperatingMIC and SegmentMIC – technical implementation in QuantFEED®

Component	Value		Description
Tag Name	OperatingMIC	SegmentMIC	QuantFEED® tag name.
Numeric ID	9533	9534	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	String	String	String data type.
Format	*[Exchange Specific Value]*	*[Exchange Specific Value]*	An **exchange specific value**, specifying the parent and child MICs.
Possible Values	XHKG	~~XHKG~~ <Not sent>	Hong Kong Exchanges and Clearing Ltd.
	XHKG	XGEM	Hong Kong Growth Enterprises Market

3.2. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the ORION EQUITIES market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the type of the internal daily closing 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.

QuantFEED® implementation of the values currently available for the tag `InternalDailyClosingPriceType` is described in the table below (currently disseminated values are in green):

Table 6   InternalDailyClosingPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	InternalDailyClosingPriceType	QuantFEED® tag name.
Numeric ID	9155	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
Format	*[Internal Specific Value]*	An ***internal specific value***, detailing the type of daily closing price, as described below.
Possible Values	0	**Undefined**
	a	**Official Close** – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day.
	b	**Official Indicative** – Exchange has provided an indicative price and marked it as indicative, however no trading activity is observed.
	c	**Official Carry Over** – Explicit Closing price value from a previous trading day carried forward by the exchange to the given trading day.
	d	**Last Price** – Final price disseminated by the exchange for the main trading session or dissemination period of a given trading day (for indices).
	e	**Last Eligible Price** – Execution price of the final trade (subject to trade qualifiers) accepted by the exchange for the main trading session of a given trading day.
	z	**Manual** – Price disseminated manually (in case of production correction).

3.3. TradeCondition

The values of the quotation tag **TradeCondition** conveyed on the ORION EQUITIES market data stream are disseminated via QuantFEED® data stream in *Context* to identify the a particular condition applicable to the 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.

QuantFEED® implementation of the tag TradeCondition is described in the table below:

Table 7   TradeCondition – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	TradeCondition	QuantFEED® tag name.
Numeric ID	277	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	String	String data type.
Format	*[Exchange Specific Value]*	An **exchange specific value**, detailing the particular condition applicable to the trade.
Possible Values	g	Split Trade – Odd Lots

4. Finding the Latest Information

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

- E-mail: rts-support@spcapitaliq.com
- Web: http://support.quanthouse.com.