S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

NGM – Feed Update

Reference n°: 20140910 – 21467 – 21469

Effective as of: **20 October 2014***

Action required from users: **Attention Required**

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, this date may differ. For the actual day when the changes to your custom feed handler take effect, please contact your QuantFEED® project manager.

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20140910 – 21467 – 21469
September 12, 2014

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UPDATE OF THE NGM MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the NGM 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

Table 1 Current update summary

Notice Reference	20140910 – 21467 – 21469
Exchanges	NGM
Concerned MICs	XNGM, NMTF
Internal Source ID	198
Effective Date	**2014-10-20***[*]
Impact	• Update of the Referential • Update of the Quotation Tags • Update of the Quotation Context Tags
Action required	**Attention Required**

2. QuantFEED® Technical Implementation

Effective Monday, **October 20[*], 2014**, S&P Capital IQ Real-Time Solutions enhances the quotation data to accommodate the new information disseminated on the NGM market data stream, as described below:

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, this date may differ. For the actual day when the changes to your custom feed handler take effect, please contact your QuantFEED® project manager.

- 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 **introduces** the referential tags below to accommodate the information disseminated on the NGM market data stream:

Table 2 Referential tags added on the NGM market data stream

Tag Name	Numeric ID	Type
`MinTradeVol`	562	Float64

2.1.1. MinTradeVol

The values of the referential tag **MinTradeVol** conveyed on the NGM market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the minimum traded volume.

QuantFEED® implementation of the tag `MinTradeVol` is detailed in the table below:

Table 3 MinTradeVol – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MinTradeVol`	QuantFEED® tag name.
Numeric ID	`562`	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Float64`	String data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the minimum traded volume.

Referential Data Sample

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

```
instr # 252/30020 = 528512324
    PriceCurrency                string{SEK}
    Symbol                       string{ASTG MTF}
    Description                  string{ADVANCED STABILIZED TECHNOLOGIES GROUP}
    SecurityType                 string{CS}
    FOSMarketId                  XNGM
    PriceType                    uint8{2}
    CFICode                      string{ESXXXX}
    RoundLot                     float64{1}
    MinTradeVol                  float64{1}
    MarketSegmentID              string{MST}
    InternalCreationDate         Timestamp{2014-03-26 00:00:00:118}
    InternalModificationDate     Timestamp{2014-11-28 03:30:00:532}
    InternalSourceId             uint16{198}
    InternalAggregationId        uint16{198}
    LocalCodeStr                 string{1XFE}
    ForeignFOSMarketId           XSTO
    ForeignMarketId              string{XSTO}
    ISIN                         string{SE0005676277}
    PriceIncrement_dynamic_TableId  uint32{12976229}
    OperatingMIC                 string{XNGM}
    SegmentMIC                   string{NMTF}
```

2.2. Changes to the Quotation Data

S&P Capital IQ Real-Time Solutions **updates** the quotation tags below to accommodate the information disseminated on the NGM market data stream:

Table 4 Quotation tags disseminating updated values on the NGM market data stream

Tag Name	Numeric ID	Type
MARKET_NGM_KnockOutBuyback	15040	Char

2.2.1. MARKET_NGM_KnockOutBuyback

The values of the quotation tag **MARKET_NGM_KnockOutBuyback** conveyed on the NGM market data stream are disseminated via QuantFEED® data stream in *Other Values* to detail the type of buyback for a knock-out product:

- 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 `MARKET_NGM_KnockOutBuyback` is described in the table below (existing values are in `black`, newly added values are in `green`):

Table 5 MARKET_NGM_KnockOutBuyback – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_NGM_KnockOutBuyback`	QuantFEED® tag name.
Numeric ID	`15040`	QuantFEED® 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`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the particular condition applicable to the trade.
Possible Values	`U`	Sold-out buyback
	`V`	Distribution
	`W`	Knock out
	`X`	Knock out buyback
	`Y`	Knock out soft
	`Z`	Under observation

Quotation Data Sample

Below is an example showing the current implementation of the updated (in `blue`) quotation tags:

```
InstrumentStatusL1
-- 252/30020
        BID: 0.99       10102   @1
        ASK: 1.04       9616    @1
        LastPrice                       float64{1.02}
        LastTradeQty                    float64{99886}
        DailyHighPrice                  float64{1.04}
        DailyLowPrice                   float64{0.99}
        DailyTotalVolumeTraded          float64{167800}
        DailyTotalAssetTraded           float64{171315}
        LastTradePrice                  float64{1.02}
        LastTradeTimestamp              Timestamp{2014-11-28 16:29:26:247}
        InternalDailyOpenTimestamp      Timestamp{2014-11-28 08:00:00:445}
        InternalDailyCloseTimestamp     Timestamp{2014-11-28 17:00:00:585}
        InternalDailyHighTimestamp      Timestamp{2014-11-28 11:35:39:446}
        InternalDailyLowTimestamp       Timestamp{2014-11-28 08:45:44:496}
        InternalPriceActivityTimestamp  Timestamp{2014-11-28 17:00:00:585}
        TradingStatus                   18=NotAvailableForTrading
        SessionVWAPPrice                float64{0}
        DailyOpeningPrice               float64{1.03}
        DailyClosingPrice               float64{1.02}
        PreviousDailyTotalVolumeTraded  float64{54624}
        PreviousDailyTotalAssetTraded   float64{55880.08}
        PreviousDailyClosingPrice       float64{1.02}
        PreviousBusinessDay             Timestamp{2014-11-27}
        CurrentBusinessDay              Timestamp{2014-11-28}
        PriceActivityMarketTimestamp    Timestamp{2014-11-28 17:00:00:582}
        InternalDailyBusinessDayTimestamp  Timestamp{2014-03-28 08:00:00:445}
        MARKET_NGM_KnockOutBuyback      char{U}
```

2.3. Changes to the Quotation Context Data

S&P Capital IQ Real-Time Solutions **updates** the quotation context tags below to accommodate the information disseminated on the NGM market data stream:

Table 6 Quotation context tags disseminating updated values on the NGM market data stream

Tag Name	Numeric ID	Type
`TradeCondition`	277	String

2.3.1. TradeCondition

Each time a trade occurs, the values of the quotation tag **TradeCondition** conveyed on the NGM market data stream are disseminated via QuantFEED® data stream in *Context*:

- 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 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the conditions of a trade.
Possible Values	`I`	Sold last (late reporting)
	`AV`	Outside spread
	`X0`	Outside spread unknown
	`XB`	Knock out buyback trade
	`XD`	Distribution trade
	`XS`	Sold out buyback trade

Quotation Context Data Sample

Below is an example showing the current implementation of the updated (in `blue`) quotation context 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"

VU  06:39:59:114.695  252/30020  TradingStatus=17
TE  06:39:59:114.695  252/30020  0.99   1.04     0.99   10102@1   0.89   9616@1    L
TradeCondition=XB,TradeID=14
```

3. 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.