S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

NGM – Feed Update

Reference n°: 20140306

Effective as of: 17 March 2014

Action required from users: Mandatory Action

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20140306
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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	20140306
Exchanges	NGM
Concerned MICs	XNGM, NMTF
Internal Source ID	198
Effective Date	**2014-03-17**
Impact	• Update of the Referential Tags • Update of the Quotation Tags
Action required	**Mandatory Action**

2. Functional Description

Effective Monday, **March 17, 2014**, S&P Capital IQ Real-Time Solutions changes the content of the referential, quotation data and the Post-Open Kinematics on the NGM market data stream to reflect the feed handler update, as described below:

2.1. Changes to the Referential Data

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

Table 2 Referential tags added on the NGM market data stream

Tag Name	Numeric ID	Type
ForeignFOSMarketId	9501	UInt16
ForeignMarketId	9502	String
OperatingMIC	9533	String
SegmentMIC	9534	String

Furthermore, the referential tags below will disseminate **new values**:

Table 3 Referential Tags disseminating new values on NGM market data stream

Tag Name	Numeric ID	Type
SecurityType	167	String
CFICode	461	String

Below is an example of the current implementation of the newly added (in `green`) and updated (in `blue`) referential tags:

```
instr # 487/1007 = 1021314031
    PriceCurrency                string{SEK}
    Symbol                       string{MVV MTF B}
    Description                  string{MVV HOLDING B}
    SecurityType                 string{WAR}
    FOSMarketId                  NMTF
    PriceType                    uint8{2}
    CFICode                      string{RWXXXX}
    RoundLot                     float64{1}
    MarketSegmentID              string{MST}
    InternalCreationDate         Timestamp{2012-08-23 16:45:08:882}
    InternalModificationDate     Timestamp{2014-02-25 03:30:00:716}
    InternalSourceId             uint16{198}
    LocalCodeStr                 string{7QY}
    ForeignFOSMarketId           XSTO
    ForeignMarketId              string{XSTO}
    ISIN                         string{SE0001999442}
    PriceIncrement_dynamic_TableId       uint32{12976228}
    OperatingMIC                 string{XNGM}
    SegmentMIC                   string{NMTF}
```

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 NGM market data stream:

Table 4 Quotation tags added on the NGM market data stream

Tag Name	Numeric ID	Type
MARKET_NGM_KnockOutBuyback	15040	Char

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

```
InstrumentStatusL1
-- 487/1007
        BID: 2.7        5000    @1
        ASK: 2.95       750     @1
        LastPrice                       float64{2.7}
        LastTradeQty                    float64{14950}
        DailyHighPrice                  float64{2.7}
        DailyLowPrice                   float64{2.7}
        DailyTotalVolumeTraded          float64{14950}
        DailyTotalAssetTraded           float64{40365}
        LastTradePrice                  float64{2.7}
        LastTradeTimestamp              Timestamp{2014-04-25 08:00:00:438}
        InternalDailyOpenTimestamp      Timestamp{2014-04-25 08:00:00:443}
        InternalDailyCloseTimestamp     Timestamp{2014-04-24 17:00:00:392}
        InternalDailyHighTimestamp      Timestamp{2014-04-25 08:00:00:443}
        InternalDailyLowTimestamp       Timestamp{2014-04-25 08:00:00:443}
        InternalPriceActivityTimestamp  Timestamp{2014-04-25 09:54:18:361}
        TradingStatus                   5=PriceIndication
        DailyOpeningPrice               float64{2.7}
        PreviousDailyTotalVolumeTraded  float64{995}
        PreviousDailyTotalAssetTraded   float64{2686.5}
        PreviousDailyClosingPrice       float64{2.7}
        PreviousBusinessDay             Timestamp{2014-04-21}
        CurrentBusinessDay              Timestamp{2014-04-25}
        MARKET_NGM_KnockOutBuyback      char{Z}
```

3. QuantFEED® Technical Implementation

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

- 3.1. CFI Code
- 3.2. Security Type
- 3.3. Operating MIC and Segment MIC
- 3.4. Knock-Out Buyback
- 3.5. Update of the Post-Open Kinematics.

3.1. CFI Code

The values of the referential tag **CFI Code** conveyed on the NGM market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the standardized identification code of an instrument.

QuantFEED® implementation of the values currently available for the tag `CFICode` is described in the table below (removed values are in ~~`crossed out red`~~ and newly added values are in `green`):

Table 5 CFICode – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`CFICode`	QuantFEED® tag name.
Numeric ID	`461`	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions's 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 standardized identification code of an instrument.
Possible Values	`DBXXXX`	Debts - Bonds
	`DCXXXX`	Debts - Convertible bonds
	`ESXXXX`	Equity - Shares
	`MXXXXX`	Other instruments
	~~`MRXXXX`~~	Other - Referential instruments
	`RMXXXX`	Rights - Other instruments
	`RSXXXX`	Rights - Subscription rights
	`RWXXXX`	Rights - Warrants

3.2. Security Type

The values of the referential tag **Security Type** conveyed on the NGM market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the type of security.

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

Table 6 SecurityType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`SecurityType`	QuantFEED® tag name.
Numeric ID	`167`	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions's 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 type of security.
Possible Values	`NONE`	Unknown Security Type
	`CS`	Common Stock
	`GO`	General Obligation Bonds
	`WAR`	Warrant

3.3. Operating MIC and Segment MIC

The values of the referential tags **Operating MIC** and **Segment MIC** conveyed on the NGM 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 tag `OperatingMIC` and `SegmentMIC` is described in the table below:

Table 7 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	`XNGM`	`NMTF`	Market places of NGM.

3.4. Knock-Out Buyback

The values of the quotation tag **Knock Out Buyback** 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:

Table 8 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 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	`W`	Knock out
	`X`	Knock out buyback
	`Y`	Knock out soft
	`Z`	Under observation

3.5. Update of the Post-Open Kinematics

In the Post-Open kinematics before 2014-03-17, during the Post-Trading Hours (usually, after 17:30 Exchange Standard Time), an instrument had the Trading Status `5=Price Indication`, as shown in the example below:

```
"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  16:24:51:065 528493787      *       *       417.63  5000@1  419.3   5000@1
VU  16:25:00:254 528493787      TradingStatus=5
SI  17:00:00:725 528493787      CLOSE   418.33
TE  17:00:00:725 528493787      418.33  *       *       *       *       *       C
VU  17:00:00:725 528493787      TradingStatus=18
VU  17:00:00:725 528493787      SessionVWAPPrice=3088818.98
```

In the Post-Open kinematics after 2014-03-17, during the same Post-Trading Hours, an instrument has the Trading Status `15=New Price Indication`, as shown in the example below:

```
"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  16:24:51:065 528493787      *       *       417.63  5000@1  419.3   5000@1
VU  16:25:00:254 528493787      TradingStatus=15
SI  17:00:00:725 528493787      CLOSE   418.33
TE  17:00:00:725 528493787      418.33  *       *       *       *       *       C
VU  17:00:00:725 528493787      TradingStatus=18
VU  17:00:00:725 528493787      SessionVWAPPrice=3088818.98
```

Moreover, in the Post-Trading Hours, the session orders and the order changes are still not disclosed (not disseminated in the market data), although you can submit, modify and/or cancel other orders.

Caution	The Trading Status `5=Price Indication` is completely removed from the list of possible Trading Status values on the NGM market data stream.

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.