QuantFEED® Developer's Notice

NASDAQ UTP – Feed Update

Reference n°: 20131014

Effective as of: 09 December 2013

Action required from users: Optional

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ's Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20131014
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UPDATE OF THE NASDAQ UTP MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on NASDAQ UTP market data stream, S&P Capital IQ's 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	20131014
Scope	Reference Data
Exchanges	NASDAQ UTP
Effective Date	**2013-12-09**
Impact	• Update of the Referential Tags • Update of the Quotation Context Tags
Action required	Optional

2. Functional Description

Effective Monday, **December 09, 2013**, S&P Capital IQ's Real-Time Solutions introduces two new referential tags – `OperatingMIC` (**NumericID**: `9533`, **Type**: `String`) and `SegmentMIC` (**NumericID**: `9534`, **Type**: `String`) – to reflect NASDAQ UTP's adoption of the ISO 10383:2012 standard. This new edition of the ISO standard refines the level of granularity on NASDAQ UTP market data stream, by introducing two levels of MIC codes – *operating* (parent-like) and *market segment* (child-like) MICs.

Moreover, the quotation context tag `MARKET_NASDAQ_UTP_SaleCondition` (**NumericID**: `15650`, **Type**: `String`) will disseminate two new values: **9 – Corrected Consolidated Close (per listing market)** and **I – Odd Lot Trade**.

3. QuantFEED® Technical Implementation

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

3.1. Operating MIC and Segment MIC

The values of the referential tags **Operating MIC** and **Segment MIC** conveyed on the NASDAQ UTP market data stream are disseminated via QuantFEED®'s data stream in *Referential* to specify the parent and child MIC.

QuantFEED®'s implementation of the values currently available for the tag `OperatingMIC` is described in the table below:

Table 2   **OperatingMIC – 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's Real-Time Solutions's 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	XNYS	ARCX	NYSE ARCA
	BATS	BATS	BATS EXCHANGE
	BATS	BATY	BATS Y-EXCHANGE, INC.
	XCBO	CBSX	CBOE STOCK EXCHANGE
	EDGE	EDGA	EDGA EXCHANGE
	EDGE	EDGX	EDGX EXCHANGE
	FINR	XADF	FINRA ALTERNATIVE DISPLAY FACILITY (ADF)
	XNYS	XASE	NYSE MKT LLC
	XNAS	XBOS	NASDAQ OMX BX
	XCHI	XCHI	CHICAGO STOCK EXCHANGE, INC
	XCIS	XCIS	NATIONAL STOCK EXCHANGE
	XNAS	XNAS	NASDAQ - ALL MARKETS
	XNAS	XPHL	NASDAQ OMX PHLX

Below is an example of the current implementation of the newly added referential tags:

```
instr # 158/500782 = 331850798
    PriceCurrency              string{USD}
    Symbol                     string{ATHN}
    Description                string{ATHENAHEALTH, INC.}
    SecurityType               string{CS}
    FOSMarketId                BATY
    CFICode                    string{ESXXXX}
    RoundLot                   float64{100}
    SecuritySubType            string{C}
    InternalCreationDate       Timestamp{2013-10-01 09:02:31:940}
    InternalModificationDate   Timestamp{2013-10-01 09:02:31:940}
    InternalSourceId           uint16{99}
    LocalCodeStr               string{ATHN}
    ForeignFOSMarketId         XNAS
    PriceIncrement_dynamic_TableId     uint32{6488164}
    OperatingMIC               string{BATS}
    SegmentMIC                 string{BATY}
```

3.2. Sale Condition

Each time an UTP participant enters a transaction, the values of the quotation tag **Sale Condition** conveyed on the NASDAQ UTP market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context* to indicate the type of 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 `MARKET_NASDAQ_UTP_SaleCondition` is described in the table below (newly added or changed values are in **bold**):

Table 3   MARKET_NASDAQ_UTP_SaleCondition – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_NASDAQ_UTP_SaleCondition`	QuantFEED® tag name.
Numeric ID	15650	QuantFEED® unique ID broadcast on S&P Capital IQ's 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**, indicating the type of trade transaction entered by an UTP participant.
Possible Values	1	Stopped Stock (Regular Trade)
	4	Derivatively Priced
	5	Re-Opening Prints
	6	Closing Prints
	7	Placeholder 611 Exempt
	8	Placeholder 611 Exempt

Table 3   MARKET_NASDAQ_UTP_SaleCondition – technical implementation in QuantFEED® (Continued)

Component	Value	Description
	9	**Corrected Consolidated Close (per listing market)** This sale condition also triggers the update of the tag `DailyClosingPrice` (**NumericID:** 9132, **Type:** `Float64`) for the consolidated instrument.
	@	Regular Trade
	A	Acquisition
	B	Bunched Trade
	C	Cash Sale
	D	Distribution
	E	Placeholder for Future Use
	F	Intermarket Sweep
	G	Bunched Sold Trade
	H	Price Variation Trade
	I	**Odd Lot Trade**
Possible Values	K	Rule 155
	L	Sold Last
	M	Market Center Official Close Price
	N	Next Day
	O	Opening Prints
	P	Prior Reference Price
	Q	Market Center Official Open Price
	R	Seller
	S	Split Trade
	T	Form T
	U	Extended Trading Hours – Sold Out of Sequence
	V	Stock-Option Trade
	W	Average Price Trade
	X	Cross Trade
	Y	Yellow Flag
	Z	Sold (Out of Sequence)

Below is an example of the current implementation of the updated quotation context tags:

```
content: LastPrice LastTradeQty OtherValues Context
        LastTradeQty  = 99
        LastPrice     = 646.18
CONTEXT:
     MARKET_NASDAQ_UTP_SaleCondition:          @+I
VALUES:
     LastPrice                     float64{645.51}


********************************************************************************************

EV 319/500937          2013-10-02 21:02:31:833 /ServerUTCTime: 2013-10-02 07:55:29:673.964
content: LastPrice Context
        LastPrice     = 84.75
CONTEXT:
OriginFOSMarketIdOf_LastPrice:  XNAS
     MARKET_NASDAQ_UTP_SaleCondition:          @9--
EV 319/500937          2013-10-02 21:19:59:973 /ServerUTCTime: 2013-10-02 07:55:30:403.100
content: OtherValues
VALUES:
     DailyClosingPrice             float64{84.75}
```

4. Finding the Latest Information

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

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