S&P Capital IQ's Real-Time Solutions

QuantFEED® Developer's Notice

TURQUOISE MIT – Feed Update

Reference n°: 20131128

Effective as of: 02 December 2013

Action required from users: Attention Required (Optional)

S&P
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S&P Capital IQ's Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
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UPDATE OF TURQUOISE MIT MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on TURQUOISE MIT 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	20131128
Exchanges	TURQUOISE MIT
Concerned MICs	TRQX
Internal Source ID	19
Effective Date	**2013-12-02**
Impact	• Update of the Referential Tags • Update of the Quotation Tags • Update of the Quotation Context Tags
Action required	**Attention Required (Optional)**

2. Functional Description

Effective Monday, **December 02, 2013**, S&P Capital IQ's Real-Time Solutions introduces a new referential tag — `OperatingMIC` (**NumericID**: `9533`, **Type**: `String`) — to reflect TURQUOISE MIT's adoption of the ISO 10383:2013 standard.

Moreover, the values currently disseminated by the referential tag `MarketSegmentID` (**NumericID**: `1300`, **Type**: `String`) will be replaced.

Also, the quotation tags `TradingStatus` (**NumericID**: `9100`, **Type**: `Enum`), `MARKET_TURQUOISE_DarkBookTradingStatus` (**NumericID**: `14721`, **Type**: `Enum`), `MARKET_TURQUOISE_OffBookReportingTradingStatus` (**NumericID**: `14722`, **Type**: `Enum`) will disseminate a new value — **5 – Price Indication**.

Furthermore, S&P Capital IQ's Real-Time Solutions introduces the quotation context tag `AggressorSide` (**NumericID**: `9356`, **Type**: `Char`) to accommodate the information disseminated on TURQUOISE MIT market data stream.

3. QuantFEED® Technical Implementation

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

- 3.1. Operating MIC
- 3.2. Market Segment ID
- 3.3. Trading Status
- 3.4. Dark Book Trading Status
- 3.5. Off Book Reporting Trading Status
- 3.6. Aggressor Side.

3.1. Operating MIC

The values of the referential tag **Operating MIC** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s data stream in *Referential* to specify the parent 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`	QuantFEED® tag name.
Numeric ID	`9533`	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 data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the parent MIC.
Possible Values	`TRQX`	Parent MIC for all TURQUOISE MIT's branches.

3.2. Market Segment ID

The values of the referential tag **Market Segment ID** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s data stream in *Referential* to specify the ID of the market segment.

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

Table 3 MarketSegmentID – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MarketSegmentID`	QuantFEED® tag name.
Numeric ID	1300	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 data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, detailing the ID of the market segment.
Possible Values	**Values Before 2013-12-02**	**Values After 2013-12-02**
	WBAH	AT
	XBRU	BE
	XSWX	CH
	XVTX	CH
	XPRA	CZ
	XETR	DE
	XCSE	DK
	XLON	EB
	XLUX	EB
	XMCE	ES
	XHEL	FI
	XAMS	FR
	XPAR	FR
	XLON	GB
	XBUD	HU
	XDUB	IE
	MTAA	IT
	XAMS	NL
	XOSL	NO
	XLIS	PT
	XSTO	SE
	ARCX	US
	XNGS	US
	XNMS	US
	XNYS	US

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

```
instr # 428/4352 = 897585408
    PriceCurrency                string{SEK}
    Symbol                       string{CAST}
    Description                  string{Castellum AB}
    MaxFloor                     float64{2154150}
    SecurityType                 string{CS}
    FOSMarketId                  TRQX
    CFICode                      string{ESXXXX}
    SecuritySubType              string{EQ}
    MarketSegmentID              string{SE}
    InternalCreationDate         Timestamp{2013-11-22 09:52:11:142}
    InternalModificationDate     Timestamp{2013-11-22 09:52:11:142}
    InternalSourceId             uint16{22}
    LocalCodeStr                 string{CASTs}
    ForeignFOSMarketId           XSTO
    ForeignMarketId              string{XSTO}
    ISIN                         string{SE0000379190}
    PriceIncrement_dynamic_TableId       uint32{0}
    UMTF                         string{CASTs}
    OperatingMIC                 string{TRQX}
    MARKET_TURQUOISE_Ticker      string{CASTs}
```

3.3. Trading Status

Each time a modification of the trading status occurs, the values of the quotation tag **Trading Status** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s 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.

QuantFEED®'s implementation of the tag `TradingStatus` is described in the following table (newly added values are in **green**):

Table 4 TradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	9100	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	`Enum`	Enum data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the characteristics of the trading status.
Possible Values	2	Trading Halt
	5	**Price Indication**
	17	Ready to Trade
	18	Not Available for Trading

3.4. Dark Book Trading Status

The values of the quotation tag **Dark Book Trading Status** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s data stream in *Other Values* to indicate the trading status:

- 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_TURQUOISE_DarkBookTradingStatus` is described in the table below (newly added values are in **green**):

Table 5 MARKET_TURQUOISE_DarkBookTradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_TURQUOISE_DarkBookTradingStatus`	QuantFEED® tag name.
Numeric ID	`14721`	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	`Enum`	Enum data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating the trading status of the Dark Book.
Possible Values	2	Trading Halt
	5	**Price Indication**
	17	Ready to Trade
	18	Not Available for Trading

3.5. Off Book Reporting Trading Status

Each time a trade occurs, the values of the quotation tag **Off Book Reporting Trading Status** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s data stream in *Other Values* to indicate the off book trading status:

- 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_TURQUOISE_OffBookReportingTradingStatus` is described in the table below (newly added values are in **green**):

Table 6 MARKET_TURQUOISE_OffBookReportingTradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_TURQUOISE_OffBookReporting TradingStatus`	QuantFEED® tag name.
Numeric ID	`14722`	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	`Enum`	Enum data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating the off book trading status.

Table 6 MARKET_TURQUOISE_OffBookReportingTradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Possible Values	2	Trading Halt
	5	**Price Indication**
	17	Ready to Trade
	18	Not Available for Trading

3.6. Aggressor Side

Each time a trade occurs, the values of the quotation context tag **Aggressor Side** conveyed on the TURQUOISE MIT market data stream are disseminated via QuantFEED®'s data stream in *Context*, to indicate whether the aggressor is a buyer or a seller:

- 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®'s implementation of the values currently available for the tag `AggressorSide` is described in the following table:

Table 7 AggressorSide – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`AggressorSide`	QuantFEED® tag name.
Numeric ID	`9356`	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	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating whether the aggressor is a buyer or a seller.
Possible Values	`Space`	No aggressor
	`1`	Buy Side
	`2`	Seller Side

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

```
08:37:14:167.063     16.15    100     *       *       !       0       HL
AggressorSide='1'=Buy, TradeConditionsDictionaryKey=uint32{46137444}
```

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.