QuantFEED® Developer's Notice

BATS BXTR – Feed Update

Reference n°: 20140908 – 21506 – 22742 (UPDATE 01 TO 20140908 – 21506 – 21507)

Effective as of: 26 September 2014[*]

Action required from users: Attention Required

S&P CAPITAL IQ
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[*] 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 20140908 – 21506 – 22742
September 12, 2014

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UPDATE OF THE QUOTATION CONTEXT DATA ON THE BATS BXTR MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the BATS BXTR 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	20140908 – 21506 – 22742 (UPDATE 01 TO 20140908 – 21506 – 21507)
Exchanges	BATS BXTR
Concerned MICs	BOTC
Internal Source ID	40
Effective Date	**2014-09-26**[*]
Impact	• Update of the Quotation Context Tags
Action required	**Attention Required**

2. QuantFEED® Technical Implementation

Effective Friday, **September 26[*], 2014**, S&P Capital IQ Real-Time Solutions enhances the quotation context data to accommodate the new information disseminated on the BATS BXTR market data stream, as described below:

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[*]   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.

2.1. 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 BATS BXTR market data stream:

Table 2   **Quotation context tags disseminating updated vales on the BATS BXTR market data stream**

Tag Name	Numeric ID	Type
MMTFlagsV2	9901	String
MARKET_BATS_TradeReportFlags	16151	UInt16

2.1.1. MMTFlagsV2

The values of the quotation tag **MMTFlagsV2** conveyed on the BATS BXTR market data stream are disseminated via QuantFEED® data stream in *Context* to detail the Market Model Typology (version 2) 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 `MMTFlagsV2` is described in the table below:

Table 3   **MMTFlagsV2 – technical implementation in QuantFEED®**

Component	Value	Description
Tag Name	MMTFlagsV2	QuantFEED® tag name.
Numeric ID	9901	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	String	String data type.
Format	*[Exchange Specific Value]* *10-character long*	An **exchange specific value**, detailing the Market Model Typology (version 2) applicable to the trade.
Possible Values	MMT Level 1 - MARKET MECHANISM – OFFSET 1	
	1	Central Limit Order Book
	2	Quote Driven Market
	3	Dark Order Book
	4	Off Book
	MMT Level 2 - TRADING MODE – OFFSET 2	

Table 3   MMTFlagsV2 – technical implementation in QuantFEED® (Continued)

Component	Value	Description
	1	Undefined Auction
	2	Continuous Trading
	3	At Market Close Trading
	4	Out of Main Session Trading
	5	Trade Reporting (On Exchange)
	6	Trade Reporting (Off Exchange)
	7	Trade Reporting (Systematic Internaliser)
	O	Scheduled Opening Auction
	K	Scheduled Closing Auction
	I	Scheduled Intraday Auction
	U	Unscheduled Auction
	MMT Level 3 - TRANSACTION TYPE	
	3.1. TRANSACTION CATEGORY – OFFSET 3	
	P	Plain-Vanilla Trade
	D	Dark Trade
	T	Technical Trade
	G	Give-up/Give-In Trade
	F	Trade with Conditions
	3.2. NEGOTIATED TRANSACTION INDICATOR – OFFSET 4	
	N	Negotiated Trade
	–	No Negotiated Trade
Possible Values	*3.3. CROSSING TRADE INDICATOR – OFFSET 5*	
	X	Crossing Trade
	–	No Crossing Trade
	3.4. MODIFICATION INDICATOR – OFFSET 6	
	C	Trade Cancellation
	A	Trade Amendment
	–	New Trade
	3.5. BENCHMARK INDICATOR – OFFSET 7	
	B	Benchmark Trade
	–	No Benchmark Trade
	3.6. EX/CUM DIVIDEND INDICATOR – OFFSET 8	
	E	Ex/cum dividend Trade
	–	No Ex/Cum Dividend Trade
	MMT Level 4 - PUBLICATION MODE – OFFSET 9	
	–	Immediate Publication
	1	Non Immediate Publication
	3.7. OFF BOOK AUTOMATED INDICATOR – OFFSET 10	
	Q	Automated
	M	Manual
	–	Not Specified

2.1.2. MARKET_BATS_TradeReportFlags

The values of the quotation tag **MARKET_BATS_TradeReportFlags** conveyed on the BATS BXTR market data stream are disseminated via QuantFEED® data stream in *Context* to identify the trade timing indicator and BATS Transaction Sub-Category:

- 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_BATS_TradeReportFlags` is described in the table below:

Table 4   **MARKET_BATS_TradeReportFlags – technical implementation in QuantFEED®**

Component	Value		Description
Tag Name	`MARKET_BATS_TradeReportFlags`		QuantFEED® tag name.
Numeric ID	`16151`		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	`UInt16`		UInt16 data type.
Format	*[Exchange Specific Value]*	**BATS Trade Timing Indicator**	An ***exchange specific value***, indicating the trade timing indicator.
Possible Values	45	–	Otherwise
	49	1	Traded reported as "late"
	50	2	Traded reported as "out of the Main Session"

Quotation Context Data Sample

Below is an example showing the quotation context tags implementation before and after the upgrade (the tags disseminating updated values are in `blue`):

Quotation Context Data before 2014-09-26

```
"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  06:15:00:445.574  418084178  1666.496  75000   *       *       *       *       OHL
TradeID=14203504929066, MMTFlagsV2=46G-----1, MARKET_BATS_TradeReportFlags=uint16{11565}
```

Quotation Context Data after 2014-09-26

```
"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  06:15:00:431.933  418084178  1666.496  75000   *       *       *       *       OHL
TradeID=14203988528196, MMTFlagsV2=46G-----1-, MARKET_BATS_TradeReportFlags=uint16{45}
```

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.