S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

BATS BXTR – Quotation Context Tags Update

Reference n°: 21154 – 21155 – 20140616

Effective as of: 23 June 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 21154 – 21155 – 20140616
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UPDATE OF THE QUOTATION CONTEXT TAGS 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
- 2. QuantFEED® Technical Implementation
- 3. Finding the Latest Information.

1. Update Summary

Table 1 Current update summary

Notice Reference	21154 – 21155 – 20140616
Exchanges	BATS BXTR
Concerned MICs	BOTC
Internal Source ID	40
Effective Date	**2014-06-23***
Impact	• Update of the Quotation Context Tags
Action required	**Attention Required**

2. QuantFEED® Technical Implementation

Effective Monday, **June 23*, 2014**, S&P Capital IQ Real-Time Solutions enhances the content of the quotation context data to accommodate the new information disseminated on the BATS BXTR market data stream, as described below:

- 2.1. Changes to the Quotation Context Data.

* 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 **introduces** the quotation context tags below to accommodate the information disseminated on the BATS BXTR market data stream:

Table 2 Quotation context tags added on the BATS BXTR market data stream

Tag Name	Numeric ID	Type
`OriginFOSMarketIdOf_LastPrice`	9350	UInt16
`OriginOf_LastPrice`	9351	String
`MMTFlagsV2`	9901	String
`MARKET_BATS_TradeReportFlags`	16151	UInt16

2.1.1. OriginFOSMarketIdOf_LastPrice

The values of the quotation tag **OriginFOSMarketIdOf_LastPrice** conveyed on the BATS BXTR market data stream are disseminated via QuantFEED® data stream in *Context* to identify the market from which the last price originates, if this market is recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions:

- 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 `OriginFOSMarketIdOf_LastPrice` is described in the table below:

Table 3 OriginFOSMarketIdOf_LastPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`OriginFOSMarketIdOf_LastPrice`	QuantFEED® tag name.
Numeric ID	`9350`	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`UInt16`	UInt16 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, identifying the market from which the last price originates, if this market is recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions. **NOTE:** This tag disseminates values only when the tag OriginOf_LastPrice is not conveyed on the BATS BXTR market data stream.

2.1.2. OriginOf_LastPrice

The values of the quotation tag **OriginOf_LastPrice** conveyed on the BATS BXTR market data stream are disseminated via QuantFEED® data stream in *Context* to identify the market from which the last price originates, if this market is not recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions:

- 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 `OriginOf_LastPrice` is described in the table below:

Table 4 OriginOf_LastPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`OriginOf_LastPrice`	QuantFEED® tag name.
Numeric ID	9351	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 data type.
Format / Possible Values	*[Exchange Specific Value]*	An ***exchange specific value***, identifying the market from which the last price originates, if this market is not recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions. **NOTE:** This tag disseminates values only when the tag OriginFOSMarketIdOf_LastPrice is not conveyed on the BATS BXTR market data stream.

2.1.3. 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 5 MMTFlagsV2 – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MMTFlagsV2`	QuantFEED® tag name.
Numeric ID	9901	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 data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, detailing the Market Model Typology (version 2) applicable to the trade.
Possible Values	**MMT Level 1 - MARKET MECHANISM**	
	1	Central Limit Order Book
	2	Quote Driven Market
	3	Dark Order Book
	4	Off Book
	MMT Level 2 - TRADING MODE	
	2	Continuous Trading
	3	At Market Close Trading
	4	Out of Main Session Trading
	5	Trade Reporting (On Exchange)
	6	Trade Reporting (Off Exchange)

Table 5 MMTFlagsV2 – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	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	
	TRANSACTION CATEGORY	
	P	Plain-Vanilla Trade
	D	Dark Trade
	T	Technical Trade
	G	Give-up/Give-In Trade
	F	Trade with Conditions
	NEGOTIATED TRANSACTION INDICATOR	
	N	Negotiated Trade
	-	No Negotiated Trade
	CROSSING TRADE INDICATOR	
	X	Crossing Trade
	-	No Crossing Trade
	MODIFICATION INDICATOR	
	C	Trade Cancellation
	A	Trade Amendment
	-	New Trade
	BENCHMARK INDICATOR	
	B	Benchmark Trade
	-	No Benchmark Trade
	EX/CUM DIVIDEND INDICATOR	
	E	Ex/cum dividend Trade
	-	No Ex/Cum Dividend Trade
	MMT Level 4 - PUBLICATION MODE	
	-	Immediate Publication
	1	Non Immediate Publication

2.1.4. 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 6 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 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**	**BATS Transaction Sub-Category**	An ***exchange specific value***, indicating the trade timing indicator and BATS Transaction Sub-Category.
Possible Values	20529	1	P	Traded reported as "late", preliminary NAV trade
	20017	1	N	Traded reported as "late", NAV trade
	11569	1	-	Traded reported as "late", otherwise
	20530	2	P	Traded reported as "out of the Main Session", preliminary NAV trade
	20018	2	N	Traded reported as "out of the Main Session", NAV trade
	11570	2	-	Traded reported as "out of the Main Session", otherwise
	20525	-	P	Otherwise, preliminary NAV trade
	20013	-	N	Otherwise, NAV trade
	11565	-	-	Otherwise, otherwise

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

```
EV 199/751766          2014-07-18 09:16:37:773.094 /ServerUTCTime: 2014-07-18 09:16:37:774
content: LastPrice LastTradeQty Context
        LastTradeQty  = 2000
        LastPrice     = 506.3
CONTEXT:
TradeID:        19845724605193
        OriginOf_LastPrice:     BLOX
        MMTFlagsV2:     32D------
        MARKET_BATS_TradeReportFlags:   uint16{11565}

***

EV 199/753082          2014-07-18 11:50:41:917.156 /ServerUTCTime: 2014-07-18 11:50:41:918
content: LastPrice LastTradeQty Context
        LastTradeQty  = 3029
        LastPrice     = 1875
CONTEXT:
TradeID:        19845724649659
        OriginFOSMarketIdOf_LastPrice:  LIQU
        MMTFlagsV2:     32D------
        MARKET_BATS_TradeReportFlags:   uint16{11565}
```

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.