### **S&P Capital IQ Real-Time Solutions**

# **QuantFEED® Developer's Notice**

## **BATS EUROPE – Feed Update**

Reference n°: 20140908 – 21501 – 22740 (UPDATE 01 TO 20140908 – 21501 – 21503)

Effective as of: 26 September 2014\*

Action required from users: Attention Required



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 – 21501 – 22740 September 12, 2014

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To reflect the changes caused by the dissemination of new values on the BATS EUROPE 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	20140908 – 21501 – 22740 (UPDATE 01 TO 20140908 – 21501 – 21503)	
Exchanges	BATS EUROPE	
Concerned MICs	BATE	
Internal Source ID	20	
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 EUROPE market data stream, as described below:

• 2.1. Changes to the Quotation Context Data.

<sup>\*</sup> 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 EUROPE market data stream:

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

Tag Name	Numeric ID	Туре
OriginFOSMarketIdOf_LastPrice	9350	UInt16
MMTFlagsv2	9901	String
MARKET_BATS_TradeReportFlags	16151	UInt16

S&P Capital IQ Real-Time Solutions removes the quotation context tags below:

Table 3 Quotation context tags no longer disseminated on the BATS EUROPE market data stream

Tag Name	Numeric ID	Туре
MARKET_BATS_ExecutionType	16150	String

### 2.1.1. OriginFOSMarketIdOf\_LastPrice

The values of the quotation tag **OriginFOSMarketIdOf\_LastPrice** conveyed on the BATS EUROPE 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 Levell event quotNotifTradeEventExt, for Java.

QuantFEED\* implementation of the tag OriginFOSMarketIdOf\_LastPrice is described in the table below:

Table 4 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.
Туре	UInt16	UInt16 data type.
Format / Possible Values	[Exchange Specific Value]	An <b>exchange specific value</b> , 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.

## 2.1.2. MMTFlagsV2

The values of the quotation tag **MMTFlagsV2** conveyed on the BATS EUROPE 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.

 $Quant FEED^*\ implementation\ of\ the\ tag\ {\tt MMTF1agsV2}\ is\ described\ in\ the\ table\ below:$ 

Table 5 MMTFlagsV2 – technical implementation in QuantFEED®

Component	Value	Description			
Tag Name	MMTFlagsV2	QuantFEED® tag name.			
Numeric ID	9901	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.			
Туре	String	String data type.			
Format	[Exchange Specific Value] 10-character long	An <b>exchange specific value</b> , detailing the Market Model Typology (version 2) applicable to the trade.			
	MMT Level 1 - MARKET MECHANIS	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 - C	PFFSET 2			
	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)			
	0	Scheduled Opening Auction			
	К	Scheduled Closing Auction			
	I	Scheduled Intraday Auction			
<b>5</b> "	U	Unscheduled Auction			
Possible Values	MMT Level 3 - TRANSACTION TYPE				
	3.1. TRANSACTION CATEGORY -	3.1. TRANSACTION CATEGORY – OFFSET 3			
	Р	Plain-Vanilla Trade			
	D	Dark Trade			
	Т	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			
	3.3. CROSSING TRADE INDICATOR – OFFSET 5				
	X	Crossing Trade			
	-	No Crossing Trade			
	3.4. MODIFICATION INDICATOR – OFFSET 6				
	С	Trade Cancellation			
	A	Trade Amendment			
	-	New Trade			

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

Component	Value	Description	
	3.5. BENCHMARK INDICATOR – OFFSET 7		
	В	Benchmark Trade	
	-	No Benchmark Trade	
	3.6. EX/CUM DIVIDEND INDICATOR – OFFSET 8		
E Ex/cum dividend Trade - No Ex/Cum Dividend Trade		Ex/cum dividend Trade	
		No Ex/Cum Dividend Trade	
Possible Values	MMT Level 4 - PUBLICATION MODE - OFFSET 9		
	-	Immediate Publication	
	1	Non Immediate Publication	
	3.7. OFF BOOK AUTOMATED INDICATOR – OFFSET 10		
	Q	Automated	
	М	Manual	
	-	Not Specified	

### 2.1.3. MARKET\_BATS\_TradeReportFlags

The values of the quotation tag **MARKET\_BATS\_TradeReportFlags** conveyed on the BATS EUROPE 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 Levell 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 the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.	
Туре	UInt16	UInt16 data type.	
Format	[Exchange Specific Value]	BATS Trade Timing Indicator	An <b>exchange specific value</b> , indicating the trade timing indicator.
	45	-	Otherwise
Possible Values	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 (newly added tags are in green and removed tags are in crossed out red):

### **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 07:41:10:428.128 940276563 74.575 23 * * * * f TradeID=37164688553549,

MARKET_BATS_ExecutionType=D
```

### **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 09:13:36:284.531 940274856 2.45 866 * * * * f TradeID=23294231515172,
OriginFOSMarketIdOf_LastPrice=BATE, MMTFlagsV2=45PN-----Q,
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.