

FeedOS™ Developer's Notice

NGM – Feed Update

Reference n°: 20150427 – 25635 – 26167 – 26397

Effective as of: 01 June 2015*

Action required from users: MANDATORY ACTION



* 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
FeedOS™ Developer's Notice: NGM – Feed Update
Reference 20150427 – 25635 – 26167 – 26397
May 07, 2015

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UPDATE OF THE NGM MARKET DATA STREAM

To reflect the changes caused by the introduction of the Order Protection Feature on the NGM Exchange, S&P Capital IQ Real-Time Solutions has decided to enhance the content of FeedOS™.

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. FeedOS Technical Implementation](#)
- [3. Finding the Latest Information.](#)

1. Update Summary

Table 1 Current update summary

Notice Reference	20150427 – 25635 – 26167 – 26397
Exchanges	NGM
Concerned MICs	XNGM, NMTF
Internal Source ID	198
Effective Date	2015-06-01*
Impact	<ul style="list-style-type: none">• Update of the Quotation Tags• Update of the Quotation Context Tags• Changes to the Level1 Market Data Kinematics – Circuit Breaker
Action required	MANDATORY ACTION - see sections: <ul style="list-style-type: none">• 2.1.5. TradingStatus• 2.3. Changes to the Level1 Market Data Kinematics – Circuit Breaker.

2. FeedOS Technical Implementation

Effective Monday, **June 01^{*} 2015**, S&P Capital IQ Real-Time Solutions enhances the quotation and quotation context data, and changes the Level1 Market Data Kinematics to accommodate the new information disseminated on the NGM market data stream, as described below:

- [2.1. Changes to the Quotation Data](#)
- [2.2. Changes to the Quotation Context Data](#)
- [2.3. Changes to the Level1 Market Data Kinematics – Circuit Breaker.](#)

2.1. Changes to the Quotation Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation tags below to accommodate the information disseminated on the NGM market data stream:

Table 2 Quotation tags added on the NGM market data stream

Tag Name	Numeric ID	Type
LastAuctionPrice	9146	Float64
LastAuctionVolume	9147	Float64
LastAuctionImbalanceSide	9151	Char
LastAuctionImbalanceVolume	9152	Float64

Moreover, S&P Capital IQ Real-Time Solutions **updates** the quotation tags below:

Table 3 Quotation tags disseminating updated values on the NGM market data stream

Tag Name	Numeric ID	Type
TradingStatus	9100	Enum
MARKET_NGM_KnockOutBuyback	15040	Char

2.1.1. LastAuctionPrice

The values of the quotation tag **LastAuctionPrice** conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Other Values* to detail the last price:

- in the callback carrying the Level1 event `notif_TradeEventExt()`, for C++
- in the event handler `TradeEventExtEventHandler`, for C#

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, the date and Source IDs may differ. For the actual day when the changes to your custom feed handler will take effect, please contact your FeedOS™ project manager.

- in the callback carrying the Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag **LastAuctionPrice** is described in the following table:

Table 4 LastAuctionPrice – technical implementation in FeedOS

Component	Value	Description
Tag Name	LastAuctionPrice	FeedOS tag name.
Numeric ID	9146	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Float64	Float64 data type.
Format / Possible Values	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , detailing the last auction price.

2.1.2. LastAuctionVolume

The values of the quotation tag **LastAuctionVolume** conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Other Values* to detail the last volume:

- 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.

FeedOS implementation of the tag **LastAuctionVolume** is described in the following table:

Table 5 LastAuctionVolume – technical implementation in FeedOS

Component	Value	Description
Tag Name	LastAuctionVolume	FeedOS tag name.
Numeric ID	9147	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Float64	Float64 data type.
Format / Possible Values	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , detailing the last auction volume.

2.1.3. LastAuctionImbalanceSide

The values of the quotation tag **LastAuctionImbalanceSide** conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the imbalance side of a closing auction:

- 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.

FeedOS implementation of the tag `LastAuctionImbalanceSide` is described below:

Table 6 `LastAuctionImbalanceSide` – technical implementation in FeedOS

Component	Value	Description
Tag Name	<code>LastAuctionImbalanceSide</code>	FeedOS tag name.
Numeric ID	9151	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
Format	<i>[Exchange specific value]</i>	An exchange specific value , detailing the imbalance side of a closing auction.
Possible Values	B	Buy
	S	Sell

2.1.4. LastAuctionImbalanceVolume

The values of the quotation tag `LastAuctionImbalanceVolume` conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the imbalance volume of a closing auction:

- 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.

FeedOS implementation of the values available for the tag `LastAuctionImbalanceVolume` is described below:

Table 7 `LastAuctionImbalanceVolume` – technical implementation in FeedOS

Component	Value	Description
Tag Name	<code>LastAuctionImbalanceVolume</code>	FeedOS tag name.
Numeric ID	9152	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Float64	Float64 data type.
Format / Possible Values	<i>[Exchange specific value]</i>	An exchange specific value , detailing the imbalance volume of a closing auction.

2.1.5. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag `TradingStatus` conveyed on the NGM market data stream are disseminated via FeedOS 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.

FeedOS implementation of the tag TradingStatus is described in the following table (newly added values are in green):

Table 8 TradingStatus – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradingStatus	FeedOS tag name.
Numeric ID	9100	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Enum	Enum data type.
Format	<i>[Exchange Specific value]</i>	An exchange specific value , detailing the characteristics of the trading status.
Possible Values	2	Trading Halt
	5	Price Indication
	15	New Price Indication
	17	Ready to Trade
	18	Not Available for Trading

2.1.6. MARKET_NGM_KnockOutBuyback

The values of the quotation tag MARKET_NGM_KnockOutBuyback conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Other Values* to detail the type of buyback for a knock-out product:

- 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.

FeedOS implementation of the tag MARKET_NGM_KnockOutBuyback is described in the table below (newly added values are in green):

Table 9 MARKET_NGM_KnockOutBuyback – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_NGM_KnockOutBuyback	FeedOS tag name.
Numeric ID	15040	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
Format	<i>[Exchange Specific value]</i>	An exchange specific value , detailing the particular condition applicable to the trade.
Possible Values	D	Circuit breaker dynamic
	S	Circuit breaker static
	U	Sold-out buyback
	V	Distribution
	W	Knock out
	X	Knock out buyback
	Y	Knock out soft
	Z	Under observation

Quotation Data Sample

Below is an example showing the current implementation of the newly added (in green) and updated (in blue) quotation tags:

```
InstrumentStatusL1
-- 252/36064
  BID: 70 0      *NO ORDER*
  ASK: 78 0      *NO ORDER*
  LastPrice      float64{70}
  LastTradeQty   float64{1}
  DailyHighPrice float64{70}
  DailyLowPrice  float64{60}
  DailyTotalVolumeTraded float64{27}
  DailyTotalAssetTraded float64{1796}
  LastTradePrice float64{70}
  LastTradeTimestamp Timestamp{2015-04-29 13:41:44:875}
  InternalDailyOpenTimestamp Timestamp{2015-04-29 13:36:02:283}
  InternalDailyCloseTimestamp Timestamp{2015-04-23 17:00:00:110}
  InternalDailyHighTimestamp Timestamp{2015-04-29 13:38:57:831}
  InternalDailyLowTimestamp Timestamp{2015-04-29 13:36:02:283}
  InternalPriceActivityTimestamp Timestamp{2015-04-29 13:52:15:197}
  TradingStatus  S=PriceIndication
  DailyOpeningPrice float64{60}
  PreviousDailyTotalVolumeTraded float64{38100}
  PreviousDailyTotalAssetTraded float64{1383920}
  PreviousDailyClosingPrice float64{340}
  PreviousBusinessDay Timestamp{2015-04-23}
  CurrentBusinessDay Timestamp{2015-04-29}
  LastAuctionPrice float64{62}
  LastAuctionVolume float64{11}
  LastAuctionImbalanceSide char{B}
  LastAuctionImbalanceVolume float64{30}
  InternalDailyClosingPriceType char{a}
  InternalLastAuctionTimestamp Timestamp{2015-04-29 13:39:49:478}
  PriceActivityMarketTimestamp Timestamp{2015-04-29 13:52:15:194}
  MARKET_NGM_KnockOutBuyback char{S}
```

2.2. Changes to the Quotation Context Data

S&P Capital IQ Real-Time Solutions **updates** the quotation tags below:

Table 10 Quotation tags disseminating updated values on the NGM market data stream

Tag Name	Numeric ID	Type
Trade Condition	277	String

2.2.1. Trade Condition

Each time a trade occurs, the values of the quotation tag **Trade Condition** conveyed on the NGM market data stream are disseminated via FeedOS data stream in *Context*:

- 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.

FeedOS implementation of the tag `TradeCondition` is described in the table below (newly added values are in **green**):

Table 11 TradeCondition – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradeCondition	FeedOS tag name.
Numeric ID	277	FeedOS unique ID broadcast 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	<i>[Exchange Specific Value]</i>	An exchange specific value , detailing the conditions of a trade.
Possible Values	I	Sold Last (Late Reporting)
	AV	Outside Spread
	XAO	Opening auction Trade
	XAC	Closing auction Trade
	XAD	Circuit breaker dynamic auction Trade
	XAS	Circuit breaker static auction Trade
	XB	Knock out buyback trade
	XD	Distribution trade
	X0	Outside Spread Unknown
	XS	Sold out buyback trade

Quotation Context Data Sample

Below is an example showing the current implementation of the updated (in **blue**) quotation tags:

```

"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 13:09:40:960.988 500 1000 ! 0 ! 0 HL
TradeCondition=XAS, Buyer=FID, Seller=FID
VU 13:09:40:960.988 DailyOpeningPrice=500
TE 13:20:03:464.021 * * 200 1000@1 * *
VU 13:20:24:825.393 TradingStatus=2
TE 13:20:24:825.393 * * * * 200 1000@1
TE 13:21:03:181.476 * * 250 1000@1 * *
VU 13:21:03:181.827 LastAuctionPrice=356.01 LastAuctionVolume=1000
LastAuctionImbalanceVolume=? LastAuctionImbalanceSide=?

```

2.3. Changes to the Level1 Market Data Kinematics – Circuit Breaker

Effective 2015-06-01, the Circuit Breakers used to halt the trading each time an extraordinary market volatility occurs will be flagged in the Level1 Market Data by the tag `MARKET_NGM_KnockOutBuyback` (see section 2.1.6. [MARKET_NGM_KnockOutBuyback](#)). Moreover, when the tag `MARKET_NGM_KnockOutBuyback` disseminates the value `D=CircuitBreakerDynamic` or `S=CircuitBreakerStatic`, the `TradingStatus` of the instrument will change to `5=PriceIndication`, as shown in the example below:

VU	04:00:00:100.974	528512640	TradingStatus=21					
VU	04:45:00:143.912	528512640	TradingStatus=5					
SI	05:00:00:103.317	528512640	OPEN	*				
TE	05:00:00:103.317	528512640	*	*	*	*	*	0
VU	05:00:00:103.317	528512640	TradingStatus=17					
VU	08:03:14:268.636	528512640	<code>MARKET_NGM_KnockOutBuyback=D</code>		<code>TradingStatus=5</code>			
VU	08:03:24:369.549	528512640	TradingStatus=17		<code>MARKET_NGM_KnockOutBuyback=?</code>			
TE	08:05:17:918.076	528512640	*	*	4	45@1	!	0
TE	08:05:33:287.851	528512640	*	*	*	*	33	100@1
TE	08:06:00:024.556	528512640	*	*	32	33@1	*	*
VU	08:06:22:611.710	528512640	<code>MARKET_NGM_KnockOutBuyback=S</code>		<code>TradingStatus=5</code>			
TE	08:06:22:611.710	528512640	*	*	33	33@1	*	*
VU	08:06:22:612.046	528512640	LastAuctionPrice=33		LastAuctionVolume=33			
			LastAuctionImbalanceVolume=?		LastAuctionImbalanceSide=?			
TE	08:06:43:852.267	528512640	*	*	33	120@1	*	*
VU	08:06:43:852.267	528512640	LastAuctionVolume=100		LastAuctionImbalanceVolume=20			
			LastAuctionImbalanceSide=B					
TE	08:07:26:108.058	528512640	*	*	*	*	33.01	100@1

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: <https://support.quanthouse.com>.