

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

## **FeedOS™ Developer's Notice**

---

### **JSE MIT – Feed Update**

Reference n°: 20141028 – 22439 – 22440

**Effective as of: 17 November 2014\***

**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: JSE MIT – Feed Update  
Reference 20141028 – 22439 – 22440  
October 30, 2014

**France Offices**

52 Rue de la Victoire  
75009 Paris  
France  
Tel: +33 (0) 1 73 02 32 11

**US Offices**

55 Water Street, 44th floor  
New York, NY 10041  
United States of America  
Tel: +1-(212)-438-4346

130 East Randolph  
One Prudential Plaza, Suite 2900  
Chicago, IL 60601  
United States of America  
Tel: +1-(312)-233-7129

**UK Office**

20 Canada Square  
Canary Wharf  
London E14 5LH  
United Kingdom  
Tel: +44 (0) 203 107 1676

**Singapore Office**

12 Marina Boulevard  
#23-01 Marina Bay  
Financial Centre Tower 3  
Singapore 018982  
Tel: +65 6530 6546

[www.capitaliq.com](http://www.capitaliq.com)

Copyright © 2014 by Standard & Poor's Financial Services LLC, a part of McGraw Hill Financial.

All rights reserved. S&P CAPITAL IQ is a trademark of Standard & Poor's Financial Services LLC. STANDARD & POOR'S, S&P, GLOBAL CREDIT PORTAL and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P's opinions and analyses do not address the suitability of any security. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.



# UPDATE OF THE JSE MIT MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the JSE MIT market data stream, 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	20141028 – 22439 – 22440
Exchanges	JSE MIT
Concerned MICs	XJSE
Internal Source ID	31
Effective Date	2014-11-17*
Impact	<ul style="list-style-type: none"><li>• Update of the Quotation Tags</li><li>• Trade Cancellation/Correction in Market News</li><li>• CLOSE Kinematics Update on Level1 Market Data</li></ul>
Action required	<b>MANDATORY ACTION</b> – see section <a href="#">2.4. Changes to the Level1 Market Data Kinematics – CLOSE</a> .

## 2. FeedOS Technical Implementation

Effective Monday, **November 17<sup>\*</sup> 2014**, S&P Capital IQ Real-Time Solutions enhances the quotation data, changes the Market News and the Level1 Market Data Kinematics to accommodate the new information disseminated on the JSE MIT market data stream, as described below:

---

\* 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 Data](#)
- [2.3. Changes to the Market News – Trade Cancellation/Correction](#)
- [2.4. Changes to the Level1 Market Data Kinematics – CLOSE.](#)

## 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 JSE MIT market data stream:

**Table 2** Quotation tags added on the JSE MIT market data stream

Tag Name	Numeric ID	Type
<a href="#">InternalDailyClosingPriceType</a>	9155	Char

### 2.1.1. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the JSE MIT market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the type of the internal daily closing price:

- 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 `InternalDailyClosingPriceType` is described in the table below (the values disseminated as of 2014-11-17 are highlighted in **green**):

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

Component	Value	Description
<b>Tag Name</b>	<code>InternalDailyClosingPriceType</code>	FeedOS tag name.
<b>Numeric ID</b>	9155	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
<b>Type</b>	Char	Char data type.
<b>Format</b>	<i>[Internal Specific Value]</i>	An <b>internal specific value</b> , detailing the type of daily closing price, as described below.
<b>Possible Values</b>	0	<b>Undefined</b>
	<b>a</b>	<b>Official Close</b> – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day.
	<b>b</b>	<b>Official Indicative</b> – Exchange has provided an indicative price and marked it as indicative, however no trading activity is observed.

**Table 3 InternalDailyClosingPriceType – technical implementation in QuantFEED® (Continued)**

Component	Value	Description
<b>Possible Values</b>	<b>c</b>	<b>Official Carry Over</b> – Explicit Closing price value from a previous trading day carried forward by the exchange to the given trading day.
	<b>d</b>	<b>Last Price</b> – Final price disseminated by the exchange for the main trading session or dissemination period of a given trading day (for indices).
	<b>e</b>	<b>Last Eligible Price</b> – Execution price of the final trade (subject to trade qualifiers) accepted by the exchange for the main trading session of a given trading day.
	<b>z</b>	<b>Manual</b> – Price disseminated manually (in case of production correction).

## Quotation Data Sample

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

```
InstrumentStatusL1
-- 232/4580
    BID: 1120      3649    @1
    ASK: 1150      9454    @2
    LastPrice      float64{1120}
    LastTradeQty   float64{692}
    DailyHighPrice float64{1170}
    DailyLowPrice  float64{1120}
    DailyTotalVolumeTraded float64{1634}
    DailyTotalAssetTraded float64{1859820}
    LastTradePrice float64{1120}
    LastTradeTimestamp Timestamp{2014-12-29 09:12:02:131}
    InternalDailyOpenTimestamp Timestamp{2014-12-29 07:00:14:096}
    InternalDailyCloseTimestamp Timestamp{2014-12-26 15:01:01:089}
    InternalDailyHighTimestamp Timestamp{2014-12-29 07:35:33:618}
    InternalDailyLowTimestamp Timestamp{2014-12-29 09:12:02:233}
    InternalPriceActivityTimestamp Timestamp{2014-12-29 09:12:02:233}
    TradingStatus   5=PriceIndication
    LastOffBookTradePrice float64{1150}
    LastOffBookTradeQty float64{68790}
    LastOffBookTradeTimestamp Timestamp{2014-12-22 09:03:51:006}
    DailyOpeningPrice float64{1170}
    PreviousDailyTotalVolumeTraded float64{29462}
    PreviousDailyTotalAssetTraded float64{33799844}
    PreviousDailyClosingPrice float64{1102}
    PreviousBusinessDay Timestamp{2014-12-26}
    CurrentBusinessDay Timestamp{2014-12-29}
    LastAuctionPrice float64{0}
    LastAuctionVolume float64{0}
    DailyTotalOffBookVolumeTraded float64{0}
    DailyTotalOffBookAssetTraded float64{0}
    InternalLastAuctionTimestamp Timestamp{2014-12-29 10:00:00:246}
    InternalDailyClosingPriceType char{b}
    MARKET_LSE_SuspendedIndicator char{N}
    MARKET_JSE_MIT_TradingStatusDetails char{u}
```

## 2.2. Changes to the Quotation Context Data

S&P Capital IQ Real-Time Solutions [updates](#) the values of the quotation context tags below:

**Table 4** Quotation context tags disseminating updated values on the JSE MIT market data stream

Tag Name	Numeric ID	Type
<a href="#">MARKET_LSE_MIT_OffBookReportingTradeTypeIndicator</a>	15950	String

### 2.2.1. MARKET\_LSE\_MIT\_OffBookReportingTradeTypeIndicator

The values of the quotation tag **MARKET\_LSE\_MIT\_OffBookReportingTradeTypeIndicator** conveyed on the JSE MIT market data stream are disseminated via FeedOS data stream in *Context* to detail the off book trade type:

- 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\_LSE\_MIT\_OffBookReportingTradeTypeIndicator** is described in the table below (existing values are in black, removed values are in ~~crossed-out-red~~):

**Table 5** MARKET\_LSE\_MIT\_OffBookReportingTradeTypeIndicator – technical implementation in FeedOS

Component	Value	Description
<b>Tag Name</b>	MARKET_LSE_MIT_OffBookReportingTradeTypeIndicator	FeedOS tag name.
<b>Numeric ID</b>	15950	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
<b>Type</b>	String	String data type.
<b>Format</b>	<i>[Exchange Specific Value]</i>	An <b>exchange specific value</b> , detailing the off book trade type, as detailed below.
<b>Possible Values</b>	<del>17</del>	LC – Cancellation of previous day's published Off Book Trade  <b>Note:</b> Trade Cancellation is now notified via Market News – see section 2.3. <a href="#">Changes to the Market News – Trade Cancellation/Correction</a> .
	<del>24</del>	PC – Cancellation of previous day's On Book Trade  <b>Note:</b> Trade Cancellation is now notified via Market News – see section 2.3. <a href="#">Changes to the Market News – Trade Cancellation/Correction</a> .
	2001	BT – Block Trade
	2002	CF – Corporate Finance Trade
	2003	LT – Late Trade
	2004	NX – Namibia Trade
	2005	OD – Delta Trade
	2006	OP – Off Order Book Principal Trade
	2007	OX – Option
	2008	TX – Traded Option Exercised
	2009	PF – Portfolio Trade

**Table 5** MARKET\_LSE\_MIT\_OffBookReportingTradeTypeIndicator – technical implementation in FeedOS

Component	Value	Description
<b>Possible Values</b>	2011	WX – Warrant
	2013	GU – Give Up
	3001	BK – Book Build
	3015	NC – Cancellation of previous day's non-published Off Book Trade.  <b>Note:</b> This trade type will never be published via the market data, it is only valid via the Post Trade Gateway when cancelling a non-published trade.

## 2.3. Changes to the Market News – Trade Cancellation/Correction

Effective 2014-11-17, each time a trade cancellation or trade correction of an on book or off book trade occurs, the event is notified via FeedOS data stream in *Market News*:

- in the callback carrying the Level1 event `notif_MarketNews()`, for C++
- in the event handler `MarketNewsEventHandler`, for C#
- in the callback carrying the Level1 event `quotNotifMarketNewsEvent`, for Java.

This Market News notification replaces some of the values previously disseminated via the quotation context tag `MARKET_LSE_MIT_OffBookReportingTradeTypeIndicator`. For more details about the removed values, see section [2.2. Changes to the Quotation Context Data](#).

Below is an example showing the trade cancellation/correction notification disseminated in the market news:

```
MN    null    null    XJSE    Normal    Trade Cancellation    Trade id: 1084396111134737
Trade date: 20141020 | Trade time: 08:59:25    related_instruments: 232/750529
```

## 2.4. Changes to the Level1 Market Data Kinematics – CLOSE

In the Level1 Market Data Kinematics before 2014-11-17, when the tag MARKET\_JSE\_MIT\_TradingStatusDetails disseminates the value z=Closing Price Publication, the Trading Status is set to 18=Not Available for Trading.

Later on, the exchange simultaneously sends the CLOSE signal and the value b=PostClose of the tag MARKET\_JSE\_MIT\_TradingStatusDetails, as shown below:

```
"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 15:00:19:020.493 486540958 * * 19801 48@1 * *
TE 15:00:19:020.515 486540958 * * * * 19938 420@1
TE 15:00:19:020.515 486540958 * * 19801 17@1 * *
VU 15:00:19:022.447 486540958 MARKET_JSE_MIT_TradingStatusDetails=z TradingStatus=18
TE 15:00:19:029.679 486540958 19801 815 * * * *
TradeConditionsDictionaryKey=uint32{65011844}, MARKET_JSE_MIT_AuctionTypeIndicator=char{C}
TE 15:00:19:576.268 486540958 * * 19800 600@1 * *
SI 15:01:19:001.188 486540958 CLOSE 19801
TE 15:01:19:001.188 486540958 19801 * * * * C
VU 15:01:19:001.188 486540958 MARKET_JSE_MIT_TradingStatusDetails=b
```

In the Level1 Market Data Kinematics after 2014-11-17, the exchange simultaneously sends the CLOSE signal, the value z=Closing Price Publication of the tag MARKET\_JSE\_MIT\_TradingStatusDetails and the Trading Status 18=Not Available for Trading.

Later on, the exchange sends the value b=PostClose of the tag MARKET\_JSE\_MIT\_TradingStatusDetails, as shown below:

```
"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 15:00:19:020.467 486540958 * * 19801 48@1 * *
TE 15:00:19:020.467 486540958 * * * * 19938 420@1
TE 15:00:19:020.478 486540958 * * 19801 17@1 * *
SI 15:00:19:022.222 486540958 CLOSE 19801
TE 15:00:19:022.222 486540958 19801 * * * * C
VU 15:00:19:022.222 486540958 MARKET_JSE_MIT_TradingStatusDetails=z
InternalDailyClosingPriceType=d TradingStatus=18
TE 15:00:19:022.584 486540958 19801 815 * * * * OHL
TradeConditionsDictionaryKey=uint32{23068773}, MARKET_JSE_MIT_AuctionTypeIndicator=char{C}
VU 15:00:19:022.584 486540958 DailyClosingPrice=19801 InternalDailyClosingPriceType=b
TE 15:00:19:576.268 486540958 * * 19800 600@1 * *
TE 15:01:19:001.188 486540958 19801 * * * * C
VU 15:01:19:001.188 486540958 MARKET_JSE_MIT_TradingStatusDetails=b
InternalDailyClosingPriceType=a
```



### 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](mailto:rts-support@spcapitaliq.com)
- Web: <http://support.quanthouse.com>.