

FeedOS™ Developer's Notice

BME – Feed Update

Reference n°: 20150410 – 24895 – 26207 (UPDATE 01 TO 20150223 – 24895 – 25472)

Effective as of: 27 April 2015*

Action required from users: Attention Required



* 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: BME – Feed Update
Reference 20150410 – 24895 – 26207
April 10, 2015

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UPDATE OF THE BME MARKET DATA STREAM

To improve the quality of the market data disseminated on the BME 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 | 20150410 – 24895 – 26207 ⁱ (UPDATE 01 TO 20150223 – 24895 – 25472) |
| Exchanges | BME |
| Concerned MICs | XMCE, XMEF |
| Internal Source ID | 89, 222 |
| Effective Date | 2015-04-27* |
| Impact | <ul style="list-style-type: none">• Update of the Referential Tags• Update of the Quotation Tags |
| Action required | Attention Required |

i. The red bars in the left margin highlight content that has been added or changed since the previous release of this document.

2. FeedOS Technical Implementation

Effective Monday, **April 27^{*} 2015**, S&P Capital IQ Real-Time Solutions enhances the referential and quotation data to accommodate the new information disseminated on the BME market data stream, as described below:

- [2.1. Changes to the Referential Data](#)
- [2.2. Changes to the Quotation Data.](#)

2.1. Changes to the Referential Data

S&P Capital IQ Real-Time Solutions **updates** the values of the referential tags below to accommodate the information disseminated on the BME market data stream:

Table 2 Referential tags disseminating updated values on the BME market data stream

| Tag Name | Numeric ID | Type |
|------------------------------|------------|--------|
| SecurityType | 167 | String |
| CFI Code | 461 | String |

2.1.1. SecurityType

The values of the referential tag **SecurityType** conveyed on the BME market data stream are disseminated via FeedOS data stream in *Referential* to specify the type of security.

FeedOS implementation of the tag **SecurityType** is described in the table below:

Table 3 SecurityType – technical implementation in FeedOS

| Component | Value | Description |
|--------------------------|----------------------------------|--|
| Tag Name | SecurityType | FeedOS tag name. |
| Numeric ID | 167 | 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 | String | String data type. |
| Format / Possible Values | <i>[Exchange specific value]</i> | An exchange specific value , detailing the type of security. |

2.1.2. CFI Code

The values of the referential tag **CFI Code** conveyed on the BME market data stream are disseminated via FeedOS data stream in *Referential* to specify the standardized identification code of an instrument.

* 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.

FeedOS implementation of the tag CFICode is described in the table below :

Table 4 CFICode – technical implementation in FeedOS

| Component | Value | Description |
|--------------------------|----------------------------------|--|
| Tag Name | CFICode | FeedOS tag name. |
| Numeric ID | 461 | 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 | String | String data type. |
| Format / Possible Values | <i>[Exchange Specific Value]</i> | An exchange specific value , detailing the standardized identification code of an instrument. |

The list below shows the possible combinations of securityTypes and CFICodes, before and after the migration day (please note that additional combinations may be available, as the exchange could introduce new instruments):

BEFORE 2015-04-27

```
{ XMCE CS ESXXXX }
{ XMCE CS EXXXXX }
{ XMCE INDEX TIXXXX }
{ XMCE INX MRXXXX }
{ XMCE MF EUXXXX }
{ XMCE MLEG FMDPSX }
{ XMCE MLEG FMEXNX }
{ XMCE MLEG FMICXX }
{ XMCE MLEG FMSCXX }
{ XMCE MLEG FMSPSX }
{ XMCE MLEG FMSPXX }
{ XMCE RIGHTS RXXXXX }
{ XMEF FUT FCECSB }
{ XMEF FUT FCECSE }
{ XMEF FUT FCECSK }
{ XMEF FUT FCECSM }
{ XMEF FUT FCECSW }
{ XMEF FUT FCECSX }
{ XMEF FUT FFDPSX }
{ XMEF FUT FFICSX }
{ XMEF FUT FFMC SX }
{ XMEF FUT FFSCSX }
{ XMEF FUT FFSPSX }
{ XMEF FUT FXXXXX }
{ XMEF FUT SCECSB }
{ XMEF FUT SCECSD }
{ XMEF FUT SCECSE }
{ XMEF FUT SCECSK }
{ XMEF FUT SCECSM }
{ XMEF MLEG FFD PSS }
{ XMEF MLEG FFICSS }
{ XMEF MLEG FFSCXS }
{ XMEF MLEG FFSPXS }
{ XMEF MLEG FMDPSX }
{ XMEF MLEG FMDPXX }
{ XMEF MLEG FMEXNX }
{ XMEF MLEG FMIC SX }
{ XMEF MLEG FMICXX }
{ XMEF MLEG FM MCXX }
{ XMEF MLEG FM SC SX }
```

AFTER 2015-04-27

```
{ XMCE CS ESXXXX }
{ XMCE CS RXXXXX }
{ XMCE CS EXXXXX }
{ XMCE INDEX TIXXXX }
{ XMCE INX MRXXXX }
{ XMCE MF EUXXXX }
{ XMCE MLEG FMDPSX }
{ XMCE MLEG FMEXNX }
{ XMCE MLEG FMICXX }
{ XMCE MLEG FMSCXX }
{ XMCE MLEG FMSPSX }
{ XMCE MLEG FMSPXX }
{ XMCE RIGHTS RXXXXX }
{ XMEF FUT FCECSB }
{ XMEF FUT FCECSE }
{ XMEF FUT FCECSK }
{ XMEF FUT FCECSM }
{ XMEF FUT FCECSW }
{ XMEF FUT FCECSX }
{ XMEF FUT FFDPSX }
{ XMEF FUT FFICSX }
{ XMEF FUT FFMC SX }
{ XMEF FUT FFSCSX }
{ XMEF FUT FFSPSX }
{ XMEF FUT FXXXXX }
{ XMEF FUT SCECSB }
{ XMEF FUT SCECSD }
{ XMEF FUT SCECSE }
{ XMEF FUT SCECSK }
{ XMEF FUT SCECSM }
{ XMEF FUT SCECSM }
{ XMEF MLEG FFD PSS }
{ XMEF MLEG FFICSS }
{ XMEF MLEG FFSCXS }
{ XMEF MLEG FFSPXS }
{ XMEF MLEG FMDPSX }
{ XMEF MLEG FMDPXX }
{ XMEF MLEG FMEXNX }
{ XMEF MLEG FMIC SX }
{ XMEF MLEG FMICXX }
{ XMEF MLEG FM MCXX }
{ XMEF MLEG FM SC SX }
```

(see next page)

BEFORE 2015-04-27

```
{ XMEF MLEG FMSCXX }
{ XMEF MLEG FMSPSX }
{ XMEF MLEG FMSPXX }
{ XMEF MLEG MCXXXX }
{ XMEF OPT OCASPS }
{ XMEF OPT OCEICS }
{ XMEF OPT OCESPS }
{ XMEF OPT OPASPS }
{ XMEF OPT OPEICS }
{ XMEF OPT OPESPS }
{ XMEF OPT OXXXXX }
```

AFTER 2015-04-27

```
{ XMEF MLEG FMSCSX }
{ XMEF MLEG FMSCXX }
{ XMEF MLEG FMSPSX }
{ XMEF MLEG FMSPXX }
{ XMEF MLEG MCXXXX }
{ XMEF OPT OCASPS }
{ XMEF OPT OCEICS }
{ XMEF OPT OCESPS }
{ XMEF OPT OPASPS }
{ XMEF OPT OPEICS }
{ XMEF OPT OPESPS }
{ XMEF OPT OXXXXX }
```

(Continued)

Referential Data Sample

Below are several examples showing the current implementation of the updated (in [blue](#)) referential tags:

```
instr # 238/10512 = 499132688
  PriceCurrency      string{EUR}
  Symbol             string{VOU}
  Issuer             string{F}
  Description         string{VOUSSE CORP, SOCIEDAD ANONIMA}
  SecurityType       string{CS}
  FOSMarketId        XMCE
  ContractMultiplier float64{1}
  CFIcode           string{RXXXXX}
  RoundLot           float64{1}
  MinTradeVol        float64{1}
  SecurityGroup       string{EE}
  MarketSegmentID    string{2}
  InternalCreationDate Timestamp{2015-04-02 05:01:08:458}
  InternalModificationDate Timestamp{2015-04-02 05:01:08:960}
  InternalSourceId    uint16{89}
  InternalAggregationId uint16{89}
  InternalEntitlementId int32{1012}
  LocalCodeStr        string{ES0176406066}
  ISIN                string{ES0176406066}
  PriceDisplayPrecision int16{2}
  PriceIncrement_dynamic_TableId uint32{5832813}
  OperatingMIC         string{BMEX}
  CCP_Eligible         bool{False}
  DynamicVariationRange float64{0}
  StaticVariationRange float64{5}
```

2.2. Changes to the Quotation Data

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

Table 5 Quotation tags added on the BME market data stream

| Tag Name | Numeric ID | Type |
|--|------------|---------|
| <code>StaticTradingReferencePrice</code> | 9396 | Float64 |
| <code>MARKET_BME_HaltReason</code> | 14922 | UInt8 |

2.2.1. StaticTradingReferencePrice

The values of the quotation tag `StaticTradingReferencePrice` conveyed on the BME market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the price of the last auction session:

- 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 `StaticTradingReferencePrice` is described in the table below:

Table 6 `StaticTradingReferencePrice` – technical implementation in QuantFEED®

| Component | Value | Description |
|--------------------------|--|--|
| Tag Name | <code>StaticTradingReferencePrice</code> | FeedOS tag name. |
| Numeric ID | 9396 | 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 exchange specific value , indicating the price of the last auction session. |

2.2.2. MARKET_BME_HaltReason

The values of the quotation tag `MARKET_BME_HaltReason` conveyed on the BME market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the reason of the trading halt:

- 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_BME_HaltReason is described in the table below:

Table 7 MARKET_BME_HaltReason – technical implementation in QuantFEED®

| Component | Value | Description |
|-----------------|----------------------------------|--|
| Tag Name | MARKET_BME_HaltReason | FeedOS tag name. |
| Numeric ID | 14922 | 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 | UInt8 | UInt8 data type. |
| Format | <i>[Exchange specific value]</i> | An exchange specific value , indicating the reason of the trading halt. |
| Possible Values | 100 | Halted by Regulator |
| | 101 | Halted by Market Surveillance |
| | 102 | Knock-out |
| | 103 | Knock-in pending |

Quotation Data Sample

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

```
InstrumentStatusL1
-- 238/1130
    BID: 0 0      *NO ORDER*
    ASK: 0 0      *NO ORDER*
    LastPrice      float64{0.48}
    LastTradeQty   float64{1925}
    DailyHighPrice float64{0.48}
    DailyLowPrice  float64{0.48}
    DailyTotalVolumeTraded float64{1925}
    DailyTotalAssetTraded float64{924}
    LastTradePrice float64{0.48}
    LastTradeTimestamp Timestamp{2015-03-19 09:43:41:150}
    InternalDailyOpenTimestamp Timestamp{2015-03-19 08:00:27:133}
    InternalDailyCloseTimestamp Timestamp{2015-03-18 16:39:00:050}
    InternalDailyHighTimestamp Timestamp{2015-03-19 09:42:00:443}
    InternalDailyLowTimestamp Timestamp{2015-03-19 08:00:27:140}
    InternalPriceActivityTimestamp Timestamp{2015-03-19 09:52:19:523}
    TradingStatus  2=TradingHalt
    LastOffBookTradePrice float64{0.63}
    LastOffBookTradeQty float64{347554}
    LastOffBookTradeTimestamp Timestamp{2015-03-18 14:48:09:620}
    DailyOpeningPrice float64{0.48}
    DailyClosingPrice float64{0.48}
    PreviousDailyTotalVolumeTraded float64{15344}
    PreviousDailyTotalAssetTraded float64{6811.36}
    PreviousDailyClosingPrice float64{0.46}
    PreviousBusinessDay Timestamp{2014-02-25}
    CurrentBusinessDay Timestamp{2014-02-26}
    LastAuctionPrice float64{0.5}
    StaticTradingReferencePrice float64{75.3}
    LastAuctionVolume float64{2875}
    DailyTotalOffBookVolumeTraded float64{0}
    DailyTotalOffBookAssetTraded float64{0}
    InternalDailyClosingPriceType char{a}
    InternalLastAuctionTimestamp Timestamp{2015-03-19 08:00:12:143}
    MARKET_BME_HaltReason uint8{100}
```

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>.