

S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

NYSE ARCA INTEGRATED – Feed Update

Reference n°: 20140124

Effective as of: **03 February 2014**

Action required from users: **Attention Required (Optional)**



**S&P
CAPITAL IQ**

McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20140124
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UPDATE OF THE NYSE ARCA INTEGRATED MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the NYSE ARCA INTEGRATED 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. Functional Description](#)
- [3. QuantFEED* Technical Implementation](#)
- [4. Finding the Latest Information.](#)

1. Update Summary

Table 1 Current update summary

| | |
|--------------------|--|
| Notice Reference | 20140124 |
| Exchanges | NYSE ARCA INTEGRATED |
| Concerned MICs | XNYS |
| Internal Source ID | 145 |
| Effective Date | 2014-02-03 |
| Impact | <ul style="list-style-type: none">• Update of the Referential Tags• Update of the Quotation Tags• L1 Kinematics Update |
| Action required | Attention Required (Optional) |

2. Functional Description

Effective Monday, **February 03, 2014**, S&P Capital IQ Real-Time Solutions enhances the values of the referential tags CFICode (**NumericID**: 461, **Type**: String) and SecurityType (**NumericID**: 167, **Type**: String) to accommodate the information disseminated on NYSE ARCA INTEGRATED market data stream.

* The red bars highlight content that has been added or changed since the previous release of this document.

S&P Capital IQ Real-Time Solutions also introduces two new referential tags – `operatingMIC` (**NumericID**: 9533, **Type**: `String`) and `segmentMIC` (**NumericID**: 9534, **Type**: `String`) – to reflect the adoption of the ISO 10383:2012 standard by the exchange. This new edition of the ISO standard refines the level of granularity on NYSE ARCA INTEGRATED market data stream, by introducing two levels of MIC codes – *operating* (parent-like) and *market segment* (child-like) MICs.

Moreover, S&P Capital IQ Real-Time Solutions adds two new quotation tags – `InternalDailyClosingPriceType` (**NumericID**: 9155, **Type**: `Char`) and `PreviousInternalDailyClosingPriceType` (**NumericID**: 9156, **Type**: `Char`) – to detail the type of the internal daily closing price on the NYSE ARCA INTEGRATED market data stream.

Furthermore, S&P Capital IQ Real-Time Solutions changes the L1 kinematics by modifying the values disseminated by the quotation tag `LastPrice` (**NumericID**: 9106, **Type**: `Float64`).

Please note that the new kinematics is QuantFEED® and exchange compliant.

3. QuantFEED® Technical Implementation

The following sections describe the technical implementation of the new or updated tags:

- [3.1. CFI Code](#)
- [3.2. Security Type](#)
- [3.3. Operating MIC and Segment MIC](#)
- [3.4. Internal Daily Closing Price Type](#)
- [3.5. Previous Internal Daily Closing Price Type](#)
- [3.6. NYSE ARCA INTEGRATED L1 Kinematics Update.](#)

3.1. CFI Code

The values of the referential tag **CFI Code** conveyed on the NYSE ARCA INTEGRATED market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the standardized identification code of an instrument.

QuantFEED® implementation of the values currently available for the tag `CFIcode` is described in the table below (enhanced values are in [blue](#)):

Table 2 CFIcode – technical implementation in QuantFEED®

| Component | Value | Description |
|------------|----------------------------------|--|
| Tag Name | CFIcode | QuantFEED® tag name. |
| Numeric ID | 461 | QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions's 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 standardized identification code of an instrument. |

Table 2 CFICode – technical implementation in QuantFEED® (Continued)

| Component | Value | Description |
|-----------------|--------|---|
| Possible Values | DBXUXX | Debts – Bonds – Unsecured/unguaranteed |
| | DXXXXX | Debts |
| | EPXXXX | Equities – Preferred Shares |
| | ESXXXX | Equities – Shares – Registered Depository Receipt |
| | ESXXXX | Equities – Shares |
| | EUXXXE | Equities – Units – Exchange Traded Funds |
| | EUXXXX | Equities – Units |
| | EXXXXX | Equities |
| | MRXXXX | Referential Instruments |
| | MXXXXX | Other Instruments |
| | RWXXXX | Rights – Warrants |
| | RXXXXX | Rights |

3.2. Security Type

The values of the referential tag **Security Type** conveyed on the NYSE ARCA INTEGRATED market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the type of security.

QuantFEED® implementation of the values currently available for the tag securitytype is described in the table below (enhanced values are in blue):

Table 3 SecurityType – technical implementation in QuantFEED®

| Component | Value | Description |
|-----------------|----------------------------------|--|
| Tag Name | SecurityType | QuantFEED® tag name. |
| Numeric ID | 167 | QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions's 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 type of security. |
| Possible Values | NONE | Unknown Security Type |
| | CS | Common Stock |
| | ETF | Exchange-Traded Fund |
| | GO | Debentures |
| | MF | Mutual Fund |
| | PS | Preferred Stock |
| | WAR | Warrant |
| | XLINKD | Index Linked Notes |

3.3. Operating MIC and Segment MIC

The values of the referential tags **Operating MIC** and **Segment MIC** conveyed on the NYSE ARCA INTEGRATED market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the parent and child MIC.

QuantFEED® implementation of the values currently available for the tag `operatingMIC` and `segmentMIC` is described in the table below:

Table 4 **OperatingMIC and SegmentMIC – technical implementation in QuantFEED®**

| Component | Value | | Description |
|------------------------|----------------------------------|----------------------------------|--|
| Tag Name | <code>operatingMIC</code> | <code>segmentMIC</code> | QuantFEED® tag name. |
| Numeric ID | 9533 | 9534 | 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 | String data type. |
| Format | <i>[Exchange Specific value]</i> | <i>[Exchange Specific value]</i> | An <i>exchange specific value</i> , specifying the parent and child MICs. |
| Possible Values | XNYS | ARCX | Market places of NYSE Euronext |

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

```
instr # 359/753508 = 753631076
Symbol                string{IWM}
SecurityType           string{CS}
FOSMarketId           ARCX
CFICode               string{EXXXXX}
InternalCreationDate   Timestamp{2014-01-08 15:28:35:685}
InternalModificationDate Timestamp{2014-01-08 15:28:35:685}
InternalSourceId       uint16{145}
LocalCodeStr          string{10187}
OperatingMIC           string{XNYS}
SegmentMIC            string{ARCX}
```

3.4. Internal Daily Closing Price Type

The values of the quotation tag **Internal Daily Closing Price Type** conveyed on the NYSE ARCA INTEGRATED market data stream are disseminated via QuantFEED® 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.

QuantFEED® implementation of the tag `InternalDailyClosingPriceType` is described in the table below:

Table 5 `InternalDailyClosingPriceType` – technical implementation in QuantFEED®

| Component | Value | Description |
|-----------------|--|---|
| Tag Name | <code>InternalDailyClosingPriceType</code> | QuantFEED® tag name. |
| Numeric ID | 9155 | QuantFEED® 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 type of the internal daily closing price. |
| Possible Values | a | Official Close – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day. |
| | e | Last Eligible Price – Execution price of the final trade (subject to trade qualifiers) accepted by the exchange for the main trading session of a given trading day. |

3.5. Previous Internal Daily Closing Price Type

The values of the quotation tag **Previous Internal Daily Closing Price Type** conveyed on the NYSE ARCA INTEGRATED market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the type of the previous 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.

QuantFEED® implementation of the tag `PreviousInternalDailyClosingPriceType` is described in the table below:

Table 6 `PreviousInternalDailyClosingPriceType` – technical implementation in QuantFEED®

| Component | Value | Description |
|-----------------|--|---|
| Tag Name | <code>PreviousInternalDailyClosingPriceType</code> | QuantFEED® tag name. |
| Numeric ID | 9156 | QuantFEED® 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 type of the previous internal daily closing price. |
| Possible Values | a | Official Close – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day. |
| | e | Last Eligible Price – Execution price of the final trade (subject to trade qualifiers) accepted by the exchange for the main trading session of a given trading day. |

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

```
InstrumentStatusL1
-- 359/753508
    BID: 114.31      2200    @2
    ASK: 114.32      100     @1
    LastPrice                float64{114.32}
    LastTradeQty              float64{436856}
    DailyHighPrice            float64{115.48}
    DailyLowPrice             float64{113.27}
    DailyTotalVolumeTraded    float64{11003425}
    DailyTotalAssetTraded     float64{1258194514.66}
    LastTradePrice            float64{113.94}
    LastTradeTimestamp        Timestamp{2014-01-13 21:00:00:874}
    InternalDailyOpenTimestamp Timestamp{2014-01-13 14:30:00:903}
    InternalDailyCloseTimestamp Timestamp{2014-01-13 21:00:01:017}
    InternalDailyHighTimestamp Timestamp{2014-01-13 14:34:52:745}
    InternalDailyLowTimestamp  Timestamp{2014-01-13 20:41:23:951}
    InternalPriceActivityTimestamp Timestamp{2014-01-14 12:57:13:955}
    TradingStatus              21=PreOpen
    LastOffBookTradePrice      float64{114.32}
    LastOffBookTradeQty        float64{300}
    LastOffBookTradeTimestamp  Timestamp{2014-01-14 12:56:57:600}
    DailyOpeningPrice          float64{115.28}
    DailyClosingPrice          float64{113.94}
    PreviousDailyTotalVolumeTraded float64{436856}
    PreviousDailyTotalAssetTraded float64{844006292.45}
    PreviousDailyClosingPrice  float64{113.94}
    PreviousBusinessDay        Timestamp{2014-01-10}
    CurrentBusinessDay          Timestamp{2014-01-13}
    LastAuctionPrice           float64{114.31}
    LastAuctionVolume           float64{2134}
    DailyTotalOffBookVolumeTraded float64{416335}
    DailyTotalOffBookAssetTraded float64{47487055.31}
    LastAuctionImbalanceSide    char{S}
    LastAuctionImbalanceVolume  float64{146}
    InternalLastAuctionTimestamp Timestamp{2014-01-14 12:56:53:248}
    InternalDailyClosingPriceType char{e}
    PreviousInternalDailyClosingPriceType char{a}
    PriceActivityMarketTimestamp Timestamp{2014-01-14 12:57:13:954}
    MARKET_NYSE_TradeCond      string{@FT }
```

3.6. NYSE ARCA INTEGRATED L1 Kinematics Update

The following sections describe the kinematics of the NYSE ARCA INTEGRATED market data stream before and after February 03, 2014:

- [3.6.1. NYSE ARCA INTEGRATED L1 Kinematics before 2014-02-03](#)
- [3.6.2. NYSE ARCA INTEGRATED L1 Kinematics after 2014-02-03.](#)

3.6.1. NYSE ARCA INTEGRATED L1 Kinematics before 2014-02-03

In the L1 kinematics before 2014-02-03, the values of the quotation tag `LastPrice` (NumericID: 9106, Type: Float64) conveyed on the NYSE ARCA INTEGRATED market data stream disseminated any trade price.

3.6.2. NYSE ARCA INTEGRATED L1 Kinematics after 2014-02-03

In the L1 kinematics after 2014-02-03, the values of the quotation tag `LastPrice` (NumericID: 9106, Type: Float64) conveyed on the NYSE ARCA INTEGRATED market data stream will disseminate only the trade prices that are eligible for the Closing Price, as shown below:

```
EV 359/755996          2014-02-17 16:17:37:239 /ServerUTCTime: 2014-02-20 17:05:53:080
content: LastPrice LastTradeQty OtherValues Context
          LastTradeQty = 68
          LastPrice    = 184.305
CONTEXT:
TradeID:      32402
VALUES:
  LastPrice    float64{184.3}
  MARKET_NYSE_TradeCond string{@F I}
```

Moreover, between the Pre-Open and Open phase, the tag `LastPrice` will disseminate no value or unknown, as shown below:

```
EV 359/754435          2014-02-16 14:00:31:145 /ServerUTCTime: 2014-02-21 15:17:20:855
content: LastPrice LastTradeQty OtherValues OffBookTrade Context
          LastTradeQty = 50
          LastPrice    = 32.78
CONTEXT:
TradeID:      424
VALUES:
  LastPrice    UNKNOWN{?}
  MARKET_NYSE_TradeCond string{@ TI}
```

4. 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>.