S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

CME – Feed Update

Reference n°: 20351 – 20908 – 20140603

Effective as of: 23 June 2014*

Action required from users: MANDATORY ACTION

* 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 20351 – 20908 – 20140603
June 13, 2014

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UPDATE OF THE CME MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the CME 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

Table 1 Current update summary

Notice Reference	20351 – 20908 – 20140603
Exchanges	CME
Concerned MICs	XCME, XCBT, XCEC, XNYM
Internal Source ID	15, 16, 17
Effective Date	**2014-06-23***
Impact	• Update of the Referential Tags • Update of the Quotation Tags
Action required	**MANDATORY ACTION** – see section 2.1.1. CFICode

2. QuantFEED® Technical Implementation

Effective Monday, **June 23*, 2014**, S&P Capital IQ Real-Time Solutions enhances the content of the referential and quotation data to accommodate the new information disseminated on the CME market data stream, as described below:

- 2.1. Changes to the Referential Data
- 2.2. Changes to the Quotation Data.

* 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 Referential Data

S&P Capital IQ Real-Time Solutions **introduces** the referential tag below to accommodate the information broadcast on the CME market data stream:

Table 2 Referential tags added on the CME market data stream

Tag Name	Numeric ID	Type
`MarketSegmentID`	1300	String
`MarketSegmentDesc`	1396	String

Moreover, S&P Capital IQ Real-Time Solutions **updates** the values disseminated by the referential tags below to accommodate the information broadcast on the CME market data stream:

Table 3 Referential tags added on the CME market data stream

Tag Name	Numeric ID	Type
`CFICode`	461	String

2.1.1. CFICode

The values of the referential tag **CFICode** conveyed on the CME 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 (existing values are in `black`, removed values are in ~~`crossed out red`~~):

Table 4 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 data stream. This is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the standardized identification code of an instrument, as detailed below.
Possible Values	**CME CBOT (XCBT)**	
	`FCAXSX`	Futures - Commodities Futures - Agriculture, forestry and fishing - Standardized
	`FCMXSX`	Futures - Commodities Futures - Other - Standardized
	`FFDXSX`	Futures - Financial Futures - Debt Instruments - Standardized
	`FFIXSX`	Futures - Financial Futures - Indices - Standardized
	`FMAXSX`	Futures - Other - Agriculture, forestry and fishing - Standardized
	`FMDXSX`	Futures - Other - Debt Instruments - Standardized
	`FMIXSX`	Futures - Other - Indices - Standardized
	`FMMXSX`	Futures - Other - Other - Standardized
	`OCAFPS`	Options - Call Options - American - Futures - Physical - Standardized
	`OCEFPS`	Options - Call Options - European - Futures - Physical - Standardized
	`OMAFXS`	Options - Other - American - Futures - Standardized

Table 4 CFICode – technical implementation in QuantFEED® (Continued)

Component	Value	Description
	~~OMEFXS~~	Options - Other - European - Futures - Standardized
	OMXFXS	Options - Other - Futures - Standardized
	OPAFPS	Options - Put Options - American - Futures - Physical - Standardized
	OPEFPS	Options - Put Options - European - Futures - Physical - Standardized
	CME NYMEX (XCEC, XNYM)	
	FCAXSX	Futures - Commodities Futures - Agriculture, forestry and fishing - Standardized
	FCMXSX	Futures - Commodities Futures - Other - Standardized
	FCXXSX	Futures - Commodities Futures - Standardized
	FMAXSX	Futures - Other - Agriculture, forestry and fishing - Standardized
	FMMXSX	Futures - Other - Other - Standardized
	FMXXSX	Futures - Other - Standardized
Possible Values	FXXXSX	Futures - Standardized
	OCAFPS	Options - Call Options - American - Futures - Physical - Standardized
	~~OCAXPS~~	Options - Call Options - American - Physical - Standardized
	OCEFPS	Options - Call Options - European - Futures - Physical - Standardized
	~~OCEXPS~~	Options - Call Options - European - Physical - Standardized
	OMAFXS	Options - Other - American - Futures - Standardized
	OMEFXS	Options - Other - European - Futures - Standardized
	OMXFXS	Options - Other - Futures - Standardized
	OPAFPS	Options - Put Options - American - Futures - Physical - Standardized
	~~OPAXPS~~	Options - Put Options - American - Physical - Standardized
	OPEFPS	Options - Put Options - European - Futures - Physical - Standardized
	~~OPEXPS~~	Options - Put Options - European - Physical - Standardized

The example below shows the list of branches on the CME market data stream changed by the CFICode refinement, before and after 2014-06-23:

```
CME CBOT

BEFORE 2014-06-23                              AFTER 2014-06-23
{ XCBT MLEG FMAXSX }                           { XCBT MLEG FMAXSX }
{ XCBT MLEG FMDXSX }                           { XCBT MLEG FMDXSX }
{ XCBT MLEG FMIXSX }                           { XCBT MLEG FMIXSX }
{ XCBT MLEG FMMXSX }                           { XCBT MLEG FMMXSX }
{ XCBT MLEG OMAFXS }                           { XCBT MLEG OMAFXS }
{ XCBT MLEG OMEFXS }
{ XCBT MLEG OMXFXS }                           { XCBT MLEG OMXFXS }

CME NYMEX

BEFORE 2014-06-23                              AFTER 2014-06-23
{ XCEC OPT OCAXPS }                            { XCEC OPT OCAFPS }
{ XCEC OPT OCEXPS }                            { XCEC OPT OCEFPS }
{ XCEC OPT OPAXPS }                            { XCEC OPT OPAFPS }
{ XCEC OPT OPEXPS }                            { XCEC OPT OPEFPS }
```

2.1.2. MarketSegmentID

The values of the referential tag **MarketSegmentID** conveyed on the CME market data stream are disseminated via QuantFEED® data stream in *Referential* to detail the ID of the market segment.

QuantFEED® implementation of values currently available for the tag `MarketSegmentID` is described below:

Table 5 MarketSegmentID – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MarketSegmentID`	QuantFEED® tag name.
Numeric ID	`1300`	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 / Possible Values	***[Exchange Specific Value]***	An ***exchange specific value***, detailing the ID of the market segment.

2.1.3. MarketSegmentDesc

The values of the referential tag **MarketSegmentDesc** conveyed on the CME market data stream are disseminated via QuantFEED® data stream in *Referential* to describe the market segment.

QuantFEED® implementation of the values currently available for tag `MarketSegmentDesc` is described below:

Table 6 MarketSegmentDesc – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MarketSegmentDesc`	QuantFEED® tag name.
Numeric ID	`1396`	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 / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, describing the market segment.

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

```
instr # 326/177625 = 683849177
    PriceCurrency                string{USD}
    Symbol                       string{OG}
    Description                  string{GOLDMAN SACHS OPTIONS}
    SecurityType                 string{OPT}
    StrikePrice                  float64{14.4}
    FOSMarketId                  XCEC
    CFICode                      string{OCAXPS}
    MinTradeVol                  float64{1}
    StrikeCurrency               string{USD}
    MatchAlgorithm               string{F}
    MarketSegmentID              string{2}
    MarketSegmentDesc            string{Commodity/Agriculture}
    InternalCreationDate         Timestamp{2014-04-26 10:23:10:982}
    InternalModificationDate     Timestamp{2014-06-10 21:31:03:681}
    InternalSourceId             uint16{15}
    LocalCodeStr                 string{OGM7_C1440}
    PriceIncrement_static        float64{0.1}
    PriceDisplayPrecision        int16{2}
    UnderlyingFOSMarketId        XCEC
    UnderlyingLocalCodeStr       string{GCM7}
    UnderlyingFOSInstrumentCode uint32{683770746}
    MaturityYear                 uint16{2017}
    MaturityMonth                uint8{5}
    MaturityDay                  uint8{25}
```

2.2. Changes to the Quotation Data

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

Table 7 Quotation tags added on the CME market data stream

Tag Name	Numeric ID	Type
`OpenInterest`	9150	Float64
`SettlementPriceType` **NOTE:** In an upcoming release, the tag `SettlementPriceType` (9383, Char) will disseminate the values currently available via the tag `SettlPriceType` (731, UInt8). Moreover, the tag `SettlPriceType` (731, UInt8) will be deprecated.	9383	Char
`PreviousSettlementPriceType`	9384	Char

2.2.1. OpenInterest

The values of the quotation tag **Open Interest** conveyed on the CME market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security:

- 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 values currently available for the tag `OpenInterest` is described in the table below:

Table 8 OpenInterest – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`OpenInterest`	QuantFEED® tag name.
Numeric ID	`9150`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security.

2.2.2. SettlementPriceType

The values of the quotation tag **SettlementPriceDate** conveyed on the CME market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the type of settlement 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 `SettlementPriceType` is described in the following table:

Table 9 SettlementPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`SettlementPriceType`	QuantFEED® tag name.
Numeric ID	9383	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	Timestamp data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, indicating the type of settlement price.
Possible Values	a	Official Daily Settlement Price
	b	Preliminary Settlement Price, subject to change until the Official Daily Settlement Price is published.

Caution	In an upcoming release, the tag `SettlementPriceType` (9383, Char) will disseminate the values currently available via the tag `SettlPriceType` (731, UInt8). Moreover, the tag `SettlPriceType` (731, UInt8) will be removed.

2.2.3. PreviousSettlementPriceType

The values of the quotation tag **PreviousSettlementPriceDate** conveyed on the CME market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the type of the previous settlement 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 `Previousettlementpricetype` is described in the following table:

Table 10 PreviousSettlementPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`PreviousSettlementPriceType`	QuantFEED® tag name.
Numeric ID	9384	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	Timestamp data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, indicating the type of the previous settlement price.
Possible Values	a	Official Daily Settlement Price
	b	Preliminary Settlement Price, subject to change until the Official Daily Settlement Price is published.

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

```
InstrumentStatusL1
-- 309/409829
        BID: 0  0       *NO ORDER*
        ASK: 0  0       *NO ORDER*
        LastPrice                       float64{1.316}
        LastTradeQty                    float64{6}
        DailyTotalVolumeTraded          float64{0}
        DailyTotalAssetTraded           float64{0}
        LastTradePrice                  float64{1.316}
        LastTradeTimestamp              Timestamp{2014-07-02 15:13:05:764}
        InternalDailyOpenTimestamp      Timestamp{2014-07-01 23:00:00:010}
        InternalDailyCloseTimestamp     Timestamp{2014-07-02 22:00:00:012}
        InternalDailyHighTimestamp      Timestamp{2014-07-01 23:00:02:455}
        InternalDailyLowTimestamp       Timestamp{2014-07-01 07:03:44:002}
        InternalPriceActivityTimestamp  Timestamp{2014-07-02 22:00:00:012}
        SettlPriceType                  uint8{100}
        LowLimitPrice                   float64{0}
        TradingStatus                   18=NotAvailableForTrading
        DailyClosingPrice               float64{1.316}
        PreviousDailyTotalVolumeTraded  float64{0}
        PreviousDailyTotalAssetTraded   float64{0}
        PreviousDailyClosingPrice       float64{1.316}
        PreviousBusinessDay             Timestamp{2014-07-01}
        CurrentBusinessDay              Timestamp{2014-07-02}
        PreviousDailySettlementPrice    float64{1.3171}
        OpenInterest                    float64{7}
        SettlementPriceType             char{b}
        PreviousSettlementPriceType     char{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
- Web: http://support.quanthouse.com.