S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

OMX NORDIC FIXED INCOME & DERIVATIVES – Feed Update

Reference n°: 20600 – 20972 – 20140602

Effective as of: 09 June 2014

Action required from users: MANDATORY ACTION

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20600 – 20972 – 20140602
June 03, 2014

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UPDATE OF THE OMX NORDIC FIXED INCOME & DERIVATIVES MARKET DATA STREAMS

To reflect the changes caused by the dissemination of new values on the OMX NORDIC FIXED INCOME & DERIVATIVES market data streams, 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	20600 – 20972 – 20140602
Exchanges	OMX NORDIC FIXED INCOME & DERIVATIVES
Concerned MICs	XCSE, XHEL, XSTO
Internal Source ID	216
Effective Date	**2014-06-09**
Impact	• Update of the Referential Tags • Update of the Quotation Tags
Action required	**MANDATORY ACTION**

2. Functional Description

Effective Monday, **June 09, 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 OMX NORDIC FIXED INCOME & DERIVATIVES market data streams, 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 disseminated by the referential tags below to accommodate the information broadcast on the OMX NORDIC FIXED INCOME & DERIVATIVES market data streams:

Table 2 Referential tags added on the OMX NORDIC FIXED INCOME & DERIVATIVES market data streams

Tag Name	Numeric ID	Type
CFICode (see page 4 and page 5)	461	String

Below is an example of the current implementation of the updated (in blue) referential tags:

```
instr # 67/27814 = 140536998
    PriceCurrency                string{DKK}
    Symbol                       string{DSV4G}
    Issuer                       string{DSV}
    Description                  string{DSV}
    SecurityType                 string{FUT}
    StdMaturity                  string{20140718}
    FOSMarketId                  XCSE
    Factor                       float64{100}
    CFICode                      string{FFXPXX}
    RoundLot                     float64{1}
    LotType                      uint8{2}
    MaxTradeVol                  float64{50000}
    SecurityGroup                string{FUTURE DELIVERABLE}
    MarketSegmentID              string{82}
    MarketSegmentDesc            string{DANISH STOCK}
    InternalCreationDate         Timestamp{2014-04-17 16:57:21:373}
    InternalModificationDate     Timestamp{2014-07-02 06:00:10:801}
    LocalCodeStr                 string{DSV4G}
    ISIN                         string{SE0005858545}
    UnderlyingLocalCodeStr       string{DK0060079531}
    MaturityYear                 uint16{2014}
    MaturityMonth                uint8{7}
    MaturityDay                  uint8{18}
    PriceIncrement_dynamic_TableId  uint32{100}
    OperatingMIC                 string{XCSE}
```

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 OMX NORDIC FIXED INCOME & DERIVATIVES market data streams:

Table 3 Quotation tags added on the OMX NORDIC FIXED INCOME & DERIVATIVES market data streams

Tag Name	Numeric ID	Type
`SettlementPriceDate`	9380	Timestamp

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

```
InstrumentStatusL1
-- 430/129455
        BID: 0.4        20
        ASK: 0  0       *NO ORDER*
        LastPrice                       float64{0.4}
        LastTradeQty                    float64{5}
        DailyHighPrice                  float64{0.4}
        DailyLowPrice                   float64{0.4}
        DailyTotalVolumeTraded          float64{10}
        DailyTotalAssetTraded           float64{4}
        LastTradePrice                  float64{0.4}
        LastTradeTimestamp              Timestamp{2014-07-02 07:14:48:333}
        InternalDailyOpenTimestamp      Timestamp{2014-07-02 07:00:00:278}
        InternalDailyCloseTimestamp     Timestamp{2014-07-02 12:56:39:123}
        InternalDailyHighTimestamp      Timestamp{2014-07-02 07:14:34:427}
        InternalDailyLowTimestamp       Timestamp{2014-07-02 07:14:34:427}
        InternalPriceActivityTimestamp  Timestamp{2014-07-02 12:56:39:123}
        TradingStatus                   18=NotAvailableForTrading
        DailyOpeningPrice               float64{0.4}
        DailyClosingPrice               float64{0.4}
        DailySettlementPrice            float64{559.75}
        PreviousBusinessDay             Timestamp{2014-07-01}
        CurrentBusinessDay              Timestamp{2014-07-02}
        PreviousDailySettlementPrice    float64{555}
        OpenInterest                    float64{3381}
        PriceActivityMarketTimestamp    Timestamp{2014-07-02 12:56:39:118}
        SettlementPriceDate             Timestamp{2014-07-02}
        MARKET_OMNET_OMX_TradingStateName       string{EMPC}
```

3. QuantFEED® Technical Implementation

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

- 3.1. CFICode (OMX NORDIC FIXED INCOME)
- 3.2. CFICode (OMX NORDIC DERIVATIVES)
- 3.3. SettlementPriceDate.

3.1. CFICode (OMX NORDIC FIXED INCOME)

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

QuantFEED® implementation of the new values available for the tag `CFICode` is described in the table below (existing values are in `black`, newly added values are in `green`):

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	DBXXXX	Debts - Bonds
	FFNCXX	Futures - Financial Futures - Interest Rates - Cash
	FXXCXX	Futures - Cash
	MMFXXX	Other Instruments - Other Assets - Forwards
	MRCXXX	Other Instruments - Referential Instruments - Currencies
	OCEXCX	Options - Call Options - European - Cash

The following examples show the list of branches available the OMX NORDIC FIXED INCOME market data stream (`FOSMarketID` – `SecurityType` – `CFICode` combinations) before and after 2014-06-09:

Branches of the OMX NORDIC FIXED INCOME before 2014-06-09

```
BRANCHES
    { XCSE CASH DBXXXX } qty: 20
    { XCSE FUT  FXXCXX } qty: 9
    { XCSE GO   DBXXXX } qty: 2236
    { XHEL CASH DBXXXX } qty: 79
    { XHEL GO   DBXXXX } qty: 1033
    { XSTO CASH DBXXXX } qty: 491
    { XSTO FORWARD MMFXXX } qty: 83
    { XSTO FUT  FXXCXX } qty: 45
    { XSTO FUT  MMFXXX } qty: 96
    { XSTO GO   DBXXXX } qty: 5847
    { XSTO NONE MRCXXX } qty: 61
    { XSTO OPT  OCEXCX } qty: 1
```

Branches of the OMX NORDIC FIXED INCOME after 2014-06-09

```
BRANCHES
    { XCSE CASH DBXXXX } qty: 20
    { XCSE FUT  FFNCXX } qty: 6
    { XCSE FUT  FXXCXX } qty: 3
    { XCSE GO   DBXXXX } qty: 2269
    { XHEL CASH DBXXXX } qty: 79
    { XHEL GO   DBXXXX } qty: 1032
    { XSTO CASH DBXXXX } qty: 491
    { XSTO FORWARD      MMFXXX } qty: 83
    { XSTO FUT  FFNCXX } qty: 14
    { XSTO FUT  FXXCXX } qty: 31
    { XSTO FUT  MMFXXX } qty: 96
    { XSTO GO   DBXXXX } qty: 5832
    { XSTO NONE MRCXXX } qty: 61
    { XSTO OPT  OCEXCX } qty: 1
```

3.2. CFICode (OMX NORDIC DERIVATIVES)

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

QuantFEED® implementation of the new values available for the tag `CFICode` is described in the table below (existing values are in `black` and newly added values are in `green`):

Table 5 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	`DYXXXX`	Debts - Money Market Instruments
	`FCECXX`	Futures - Commodities Futures - Extraction Resources - Cash
	`FFICXX`	Futures - Financial Futures - Indices - Cash
	`FFNCXX`	Futures - Financial Futures - Interest Rates - Cash
	`FFSPXX`	Futures - Financial Futures - Stock Equities - Physical
	`FFXPXX`	Futures - Financial Futures - Physical
	`FXXCXX`	Futures - Cash
	`MMFXXX`	Other Instruments - Other Assets - Forwards
	`MMXXXX`	Other Instruments - Other Assets
	`OCANCX`	Options - Call Options - American - Interest Rates - Cash
	`OCASPX`	Options - Call Options - American - Stock Equities - Physical
	`OCEICX`	Options - Call Options - European - Indices - Cash
	`OCENCX`	Options - Call Options - European - Interest Rates - Cash
	`OCEXCX`	Options - Call Options - European - Cash

Table 5 CFICode – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	OCXICX	Options - Call Options - Indices - Cash
	OCXSPX	Options - Call Options - Stock Equities - Physical
	OCXXCX	Options - Call Options - Cash
	OCXXPX	Options - Call Options - Physical
	OPANCX	Options - Put Options - American - Interest Rates - Cash
	OPASPX	Options - Put Options - American - Stock Equities - Physical
	OPEICX	Options - Put Options - European - Indices - Cash
	OPENCX	Options - Put Options - European - Interest Rates - Cash
	OPEXCX	Options - Put Options - European - Cash
	OPXICX	Options - Put Options - Indices - Cash
	OPXSPX	Options - Put Options - Stock Equities - Physical
	OPXXCX	Options - Put Options - Cash
	OPXXPX	Options - Put Options - Physical

The following examples show the list of branches available the OMX NORDIC DERIVATIVES market data stream (`FOSMarketID` – `SecurityType` – `CFICode` combinations) before and after 2014-06-09:

Branches of the OMX NORDIC DERIVATIVES before 2014-06-09

```
BRANCHES
        { XCSE FUT      FFXPXX } qty: 258
        { XCSE FUT      FXXCXX } qty: 14
        { XCSE OPT      OCXXPX } qty: 2023
        { XCSE OPT      OPXXPX } qty: 2024
        { XCSE REPO     DYXXXX } qty: 198
        { XHEL FORWARD  MMFXXX } qty: 164
        { XHEL OPT      OCXXPX } qty: 1010
        { XHEL OPT      OPXXPX } qty: 1006
        { XSTO FORWARD  MMFXXX } qty: 755
        { XSTO FUT      FFICXX } qty: 33
        { XSTO FUT      FFXPXX } qty: 974
        { XSTO FUT      FXXCXX } qty: 385
        { XSTO FUT      MMFXXX } qty: 24
        { XSTO MLEG     MMXXXX } qty: 725
        { XSTO OPT      OCEICX } qty: 1313
        { XSTO OPT      OCEXCX } qty: 560
        { XSTO OPT      OCXICX } qty: 118
        { XSTO OPT      OCXXCX } qty: 155
        { XSTO OPT      OCXXPX } qty: 10955
        { XSTO OPT      OPEICX } qty: 1313
        { XSTO OPT      OPEXCX } qty: 556
        { XSTO OPT      OPXICX } qty: 118
        { XSTO OPT      OPXXCX } qty: 154
        { XSTO OPT      OPXXPX } qty: 10953
        { XSTO REPO     DYXXXX } qty: 1013
```

Branches of the OMX NORDIC DERIVATIVES after 2014-06-09

```
BRANCHES
        { XCSE FUT      FFNCXX } qty: 11
        { XCSE FUT      FFSPXX } qty: 160
        { XCSE FUT      FFXPXX } qty: 98
        { XCSE FUT      FXXCXX } qty: 3
        { XCSE OPT      OCASPX } qty: 1165
        { XCSE OPT      OCXXPX } qty: 847
        { XCSE OPT      OPASPX } qty: 1165
        { XCSE OPT      OPXXPX } qty: 848
        { XCSE REPO     DYXXXX } qty: 198
        { XHEL FORWARD  MMFXXX } qty: 164
        { XHEL OPT      OCASPX } qty: 418
        { XHEL OPT      OCXXPX } qty: 586
        { XHEL OPT      OPASPX } qty: 418
        { XHEL OPT      OPXXPX } qty: 582
        { XSTO FORWARD  MMFXXX } qty: 736
        { XSTO FUT      FCECXX } qty: 162
        { XSTO FUT      FFICXX } qty: 33
        { XSTO FUT      FFNCXX } qty: 13
        { XSTO FUT      FFSPXX } qty: 712
        { XSTO FUT      FFXPXX } qty: 262
        { XSTO FUT      FXXCXX } qty: 169
        { XSTO FUT      MMFXXX } qty: 24
        { XSTO MLEG     MMXXXX } qty: 725
        { XSTO OPT      OCANCX } qty: 119
        { XSTO OPT      OCASPX } qty: 5665
        { XSTO OPT      OCEICX } qty: 1288
        { XSTO OPT      OCENCX } qty: 64
        { XSTO OPT      OCEXCX } qty: 495
        { XSTO OPT      OCXICX } qty: 116
        { XSTO OPT      OCXSPX } qty: 220
        { XSTO OPT      OCXXCX } qty: 36
        { XSTO OPT      OCXXPX } qty: 5039
        { XSTO OPT      OPANCX } qty: 117
        { XSTO OPT      OPASPX } qty: 5664
        { XSTO OPT      OPEICX } qty: 1288
        { XSTO OPT      OPENCX } qty: 63
        { XSTO OPT      OPEXCX } qty: 492
        { XSTO OPT      OPXICX } qty: 116
        { XSTO OPT      OPXSPX } qty: 220
        { XSTO OPT      OPXXCX } qty: 37
        { XSTO OPT      OPXXPX } qty: 5038
        { XSTO REPO     DYXXXX } qty: 1001
```

3.3. SettlementPriceDate

The values of the quotation tag **SettlementPriceDate** conveyed on the OMX NORDIC FIXED INCOME & DERIVATIVES market data streams are disseminated via QuantFEED® data stream in *Other Values* to indicate the date of the 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 `SettlementPriceDate` is described in the following table:

Table 6 SettlementPriceDate – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`SettlementPriceDate`	QuantFEED® tag name.
Numeric ID	`9380`	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Timestamp`	Timestamp data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating the date of the settlement price.

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.