S&P Capital IQ's Real-Time Solutions

QuantFEED® Developer's Notice

SWX – **Feed Update**

Reference n°: 20131028

Effective as of: 04 November 2013

Action required from users: MANDATORY



S&P Capital IQ's Real-Time Solutions (QuantHouse*) – QuantFEED* QuantFEED* Developer's Notice Reference 20131028 October 28, 2013

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UPDATE OF SWX MARKET DATA STREAM

To reflect the changes in the trading process on SWX market data stream, S&P Capital IQ's 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	20131028
Exchanges	SWX
Concerned MICs	XSWX, XVTX, LIQU, XQMH
Internal Source ID	29
Effective Date	2013-11-04
Impact	Referential Tags' update Quotation Tags' update Update of the L1 kinematics on Auction Phases: resetting tags LastAuctionPrice and LastAuctionVolume suspending data dissemination via LastPrice and MARKET_SWX_LastAuctionQty
Action required	MANDATORY

2. Functional Description

Effective Monday, **November 04, 2013**, S&P Capital IQ's Real-Time Solutions adds a new referential tag – OperatingMIC (**NumericID:** 9533, **Type:** String) –, and a new quotation tag – TradingReferencePrice (**NumericID:** 9370, **Type:** Float64) –, to accommodate the information disseminated on SWX market data stream.

Furthermore, S&P Capital IQ's Real-Time Solutions introduces a new L1 kinematics that resets the values of the tags LastAuctionPrice (NumericID: 9146, Type: Float64) and LastAuctionVolume (NumericID: 9147, Type: Float64) at the end of the auction phases on SWX market data stream.

Moreover, the tags LastPrice (NumericID: 9106, Type: Float64) and MARKET_SWX_LastAuctionQty (NumericID: 15451, Type: Float64) are no longer disseminated at the end of the same auction phases.

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

3. QuantFEED® Technical Implementation

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

- 3.1. Operating MIC
- 3.2. Trading Reference Price
- 3.3. SWX L1 Kinematics Update.

3.1. Operating MIC

The values of the referential tag **Operating MIC** conveyed on SWX market data stream are disseminated via QuantFEED*'s data stream in *Referential* to reflect SWX's adoption of the ISO 10383:2012 standard and indicate the parent-like MIC.

QuantFEED*'s implementation of the values currently available for the tags OperatingMIC is described in the table below:

Table 2 OperatingMIC – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	OperatingMIC	QuantFEED® tag name.
Numeric ID	9533	QuantFEED® unique ID disseminated on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Туре	String	String data type.
Format	[Exchange Specific Value]	An exchange specific value , specifying the parent MICs.
Possible Values	LIQU	LIQUIDNET SYSTEMS
	ХQМН	SCOACH SWITZERLAND
	XSWX	SIX SWISS EXCHANGE AG

3.2. Trading Reference Price

The values of the quotation tag **Trading Reference Price** are disseminated via QuantFEED*'s data stream in *Other Values* to indicate the superior price limit:

- in the callback carrying the Level1 event notif_TradeEventExt(), for C++
- in the event handler TradeEventExtEventHandler, for C#
- in the callback carrying the Levell event quotNotifTradeEventExt, for Java.

QuantFEED*'s implementation of the tag TradingReferencePrice is described in the following table:

Table 3 TradingReferencePrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	TradingReferencePrice	QuantFEED® tag name.
Numeric ID	9370	QuantFEED® unique ID disseminated on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Туре	Float64	Float64 data type.
Format / Possible values	[Exchange Specific Value]	An exchange specific value , indicating the superior price limit.

Caution	The tag TradingReferencePrice is updated after the market closes, but not during the trading
	phase.

3.3. SWX L1 Kinematics Update

The following sections describe the kinematics of SWX market data stream before and after 2013-11-04:

- 3.3.1. SWX L1 Kinematics Before 2013-11-04
- 3.3.2. SWX L1 Kinematics After 2013-11-04.

3.3.1. SWX L1 Kinematics Before 2013-11-04

At the end of the auction phases, the exchange sends a message to reset the auction values disseminated by QuantFEED*s tags LastPrice (NumericID: 9106, Type: Float64), LastAuctionPrice (NumericID: 9146, Type: Float64), LastAuctionVolume (NumericID: 9147, Type: Float64) and MARKET_SWX_LastAuctionQty (NumericID: 15451, Type: Float64).

In the L1 kinematics before November 04, 2013, S&P Capital IQ's Real-Time Solutions ignores these messages and keeps the tags' values during the entire trading session until a new auction phase occurs, as shown in the sample below:

Sample SWX L1 kinematics before 2013-11-04

```
EV 298/500052
                       2013-10-18 08:33:37:629 /ServerUTCTime: 2013-10-18 08:33:37:630
content: Bid LastPrice OtherValues Context
        BestBid = AT_BEST 510
        LastPrice
                    = 70
CONTEXT:
MARKET_SWX_LastAuctionQty: float64{510}
VALUES:
    LastAuctionPrice float64{70}
LastAuctionVolume float64{510}
                              float64{510}
EV 298/500052 2013-10-18 08:33:55:108 /ServerUTCTime: 2013-10-18 08:33:55:109
content: Bid OtherValues Context
       BestBid = AT_BEST 1010
                                       @3
CONTEXT:
MARKET_SWX_LastAuctionQty:
                              float64{1010}
VALUES:
   LastAuctionVolume
                              float64{1010}
EV 298/500052 2013-10-18 08:34:52:009 /ServerUTCTime: 2013-10-18 08:34:52:010
content: Bid Ask
    BestBid = 62 500
    BestAsk = 70 1499
                                       @1
                              14998
                                      @1
EV 298/500052
                       2013-10-18 08:34:52:005 /ServerUTCTime: 2013-10-18 08:34:52:010
content: TradingStatus OtherValues
VALUES:
    MARKET_SWX_BookCondition int32{3}
TradingStatus 17=ReadyToTrade
EV 298/500052 2013-10-18 08:34:52:005 /ServerUTCTime: 2013-10-18 08:34:52:032
content: LastPrice LastTradeQty
       LastTradeQty = 10
       LastPrice = 70
CONTEXT:
MARKET_SWX_TradingPhase:
                                1
```

3.3.2. SWX L1 Kinematics After 2013-11-04

After November 04, 2013, the values disseminated by the tags LastAuctionPrice and LastAuctionVolume are reset at the end of each auction phase, while those previously sent via LastPrice and MARKET_SWX_LastAuctionQty are no longer disseminated.

The new kinematics ensures that the tags' content is consistent with the data disseminated by the exchange.

Sample SWX L1 kinematics after 2013-11-04

```
EV 298/500052
                        2013-10-18 08:33:37:629 /ServerUTCTime: 2013-10-18 08:33:37:630
content: OtherValues
VALUES:
    LastAuctionPrice
                                float64{70}
    LastAuctionVolume
                                float64{510}
EV 298/500052
                        2013-10-18 08:33:55:108 /ServerUTCTime: 2013-10-18 08:33:55:108
content: Bid
BestBid
EV 298/500052
                      = AT_BEST 1010
                        2013-10-18 08:33:55:108 /ServerUTCTime: 2013-10-18 08:33:55:109
content: OtherValues
VALUES:
    LastAuctionVolume
                                float64{1010}
EV 298/500052 2013-10-18 08:34:52:009 /ServerUTCTime: 2013-10-18 08:34:52:009
content: Bid Ask
BestBid = 62 500 @1
BestAsk = 70 14998 @1
EV 298/500052 2013-10-18 08:34:52:009 /serverUTCTime: 2013-10-18 08:34:52:009
content: OtherValues
VALUES:
    LastAuctionPrice
                                UNKNOWN{?}
    LastAuctionVolume UNKNOWN{?}
298/500052 UNKNOWN{?}
2013-10-18 08:34:52:009 /serverUTCTime: 2013-10-18 08:34:52:010
EV 298/500052
content: TradingStatus OtherValues
VALUES:
    MARKET_SWX_BookCondition int32{3}
    TradingStatus
                               17=ReadyToTrade
EV 298/500052 2013-10-18 08:34:52:005 /ServerUTCTime: 2013-10-18 08:34:52:047
content: LastPrice LastTradeQty Context
        LastTradeQty = 10
        LastPrice = 70
CONTEXT:
MARKET_SWX_TradingPhase:
```

4. Finding the Latest Information

For the latest documentation and product updates, additional support and training, please contact our support services:

- E-mail: support@quanthouse.com
- Web: http://support.quanthouse.com.