S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

ASX DERIVATIVES – Feed Update

Reference n°: 18942 – 20140514

Effective as of: **26 May 2014**

Action required from users: **MANDATORY ACTION**

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 18942 – 20140514
May 14, 2014

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UPDATE OF THE ASX DERIVATIVES MARKET DATA STREAM

To reflect the changes caused by the introduction of volatility controls on index futures contracts on the ASX DERIVATIVES, 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	18942 – 20140514
Exchanges	ASX DERIVATIVES
Concerned MICs	XSFE
Internal Source ID	246
Effective Date	**2014-05-26**
Impact	• Update of the Referential Tags • Update of the Quotation Tags • Update of the Quotation Context Tags
Action required	**MANDATORY ACTION** – see section 3.6. TradingStatus.

2. Functional Description

Effective Monday, **May 26, 2014**, during the night session for the trading date Tuesday, May 27, ASX DERIVATIVES introduces several Volatility Controls – such as *Anomalous Order Threshold (AOT)* and the new Session State '*Regulatory Halt*' – on the following Equity Index Futures contracts:

- ASX SPI 200™ index futures (AP)
- S&P/ASX 200 Resources index futures (AR)
- S&P/ASX 200 Financials-x-A-REIT index futures (AF).

The **Anomalous Order Threshold** (AOT) prevents aggressive orders from entering the market outside an allowed range, based on a Dynamic Reference Price (as described in section 3.4. TradingReferencePrice). The AOT range will initially be set at +/- 0.5% from the AOT reference price (as described in sections 3.2. LowLimitPrice and 3.3. HighLimitPrice). The AOT reference price is a moving average and is recalculated at regular intervals.

The **Regulatory Halt Session State** re-sets the AOT reference price in the event of erroneous trading. If a Regulatory Halt occurs, the Trading Status is set to `5=Price Indication` (as described in section 3.6. TradingStatus) and any spread orders and custom orders related to the halted product are purged.

Subsequently, S&P Capital IQ Real-Time Solutions enhances the content of the referential, quotation and quotation context data to accommodate these changes on the ASX DERIVATIVES market data stream, as detailed below:

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

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 ASX DERIVATIVES market data stream:

Table 2 Referential tags added on the ASX DERIVATIVES market data stream

Tag Name	Numeric ID	Type
`Description`	107	String

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

```
instr # 21/1003070 = 45043262
    PriceCurrency                string{AUD}
    Symbol                       string{IR}
    Description                  string{90 Day Bank Accepted Bill Futures}
    SecurityType                 string{FUT}
    StdMaturity                  string{201412}
    FOSMarketId                  XSFE
    CFICode                      string{FFNXXX}
    RoundLot                     float64{1000000}
    MarketSegmentID              string{SFE}
    InternalCreationDate         Timestamp{2014-05-07 06:42:30:383}
    InternalModificationDate     Timestamp{2014-05-07 06:42:30:383}
    InternalSourceId             uint16{246}
    LocalCodeStr                 string{242170}
    PriceIncrement_static        float64{0.01}
    MaturityYear                 uint16{2014}
    MaturityMonth                uint8{12}
    MBLLayersDesc                string{0,1}
    OperatingMIC                 string{XASX}
    SegmentMIC                   string{XSFE}
```

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 ASX DERIVATIVES market data stream:

Table 3 Quotation tags added on the ASX DERIVATIVES market data stream

Tag Name	Numeric ID	Type
`LowLimitPrice`	1148	Float64
`HighLimitPrice`	1149	Float64
`TradingReferencePrice`	9370	Float64
`SettlementPriceDate`	9380	Timestamp

Moreover, S&P Capital IQ Real-Time Solutions **updates** the values of the quotation tag below:

Table 4 Quotation tags disseminating updated values on the ASX DERIVATIVES market data stream

Tag Name	Numeric ID	Type
`TradingStatus`	9100	String

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

```
VU  06:39:52:003.581  21/13823  TradingStatus=5
SI  06:39:52:003.581  21/13823  CLOSE   *
TE  06:39:52:003.581  21/13823  *       *       *       *       *       *       C
VU  06:39:52:003.581  21/13823  TradingStatus=18

[...]

VU  06:39:59:130.114  21/13823  TradingStatus=17
VU  06:39:59:130.114  21/13823  TradingReferencePrice=5496      LowLimitPrice=5471
HighLimitPrice=5521
SI  06:39:59:130.114  21/13823  OPEN    *
TE  06:39:59:130.114  21/13823  *       *       *       *       *       *       O

[...]

VU  06:40:10:068.794  21/4087  DailySettlementPrice=1.465    SettlementPriceDate=2014-05-28
```

2.3. Changes to the Quotation Context Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation context tag below to accommodate the information broadcast on the ASX DERIVATIVES market data stream:

Table 5 Quotation context tags added on the ASX DERIVATIVES market data stream

Tag Name	Numeric ID	Type
`TradeCondition`	277	String

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

```
VU  06:39:59:114.695  21/13823  TradingStatus=16
TE  06:39:59:114.695  21/13823  5496    9       5496    26@1    5296    1@1     L
TradeCondition=R-X,TradeID=14
```

3. QuantFEED® Technical Implementation

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

- 3.1. Description
- 3.2. LowLimitPrice
- 3.3. HighLimitPrice
- 3.4. TradingReferencePrice
- 3.5. SettlementPriceDate
- 3.6. TradingStatus
- 3.7. TradeCondition.

3.1. Description

The values of the referential tag **Description** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Referential* to characterize an instrument.

QuantFEED® implementation of the values currently available for the tag `Description` is detailed in the table below:

Table 6 Description – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`Description`	QuantFEED® tag name.
Numeric ID	`107`	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 / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, characterizing the instrument.

3.2. LowLimitPrice

The values of the quotation tag **LowLimitPrice** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the low limit of a 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 `LowLimitPrice` is described in the following table:

Table 7 LowLimitPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`LowLimitPrice`	QuantFEED® tag name.
Numeric ID	`1148`	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***, indicating the low limit of a price.

3.3. HighLimitPrice

The values of the quotation tag **HighLimitPrice** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the high limit of a 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 `HighLimitPrice` is described in the following table:

Table 8 HighLimitPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`HighLimitPrice`	QuantFEED® tag name.
Numeric ID	`1149`	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***, indicating the high limit of a price.

3.4. TradingReferencePrice

The values of the quotation tag **TradingReferencePrice** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the reference 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 `TradingReferencePrice` is described in the following table:

Table 9 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 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***, indicating the reference price.

3.5. SettlementPriceDate

The values of the quotation tag **SettlementPriceDate** conveyed on the ASX DERIVATIVES market data stream 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 10 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.

3.6. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **Trading Status** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Other Values*:

- 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 `TradingStatus` is described in the following table (newly added values are in `green`):

Table 11 TradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	9100	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Enum`	Enum data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, detailing the characteristics of the trading status.
Possible Values	5	Price Indication
	16	Trade Dissemination Time
	17	Ready to Trade
	18	Not Available for Trading
	21	Pre-Open

3.7. TradeCondition

The values of the quotation tag **Trade Condition** conveyed on the ASX DERIVATIVES market data stream are disseminated via QuantFEED® data stream in *Context* to identify the a particular condition applicable to the trade:

- 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 `TradeCondition` is described in the table below:

Table 12 TradeCondition – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradeCondition`	QuantFEED® tag name.
Numeric ID	277	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 particular condition applicable to the trade.

Table 12 TradeCondition – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	`<Empty>`	Normal Trade, trade price matches both order prices. Default value, not sent.
	`X`	Crossed
	`Z`	Sweeping Trade, trade price matches resting order
	`Z-X`	Sweeping Trade, trade price matches resting order – Crossed
	`R`	Levelling Trade, trade price may be different than price of resting order(s)
	`R-X`	Levelling Trade, trade price may be different than price of resting order(s) – Crossed
	`1`	Spread-to-Underlying trade (price is based on the order of the underlying future relating to intra, inter or custom matching with an outright order)
	`1-X`	Spread-to-Underlying trade (price is based on the order of the underlying future relating to intra, inter or custom matching with an outright order) – Crossed
	`AA-4`	Intra-Spread-to-Intra-Spread trade (price is based on the near contract's prior day settlement)
	`AA-4-X`	Intra-Spread-to-Intra-Spread trade (price is based on the near contract's prior day settlement) – Crossed
	`3`	Inter-Spread-to-Inter-Spread trade (price is based on the secondary's contract's prior day settlement)
	`3-X`	Inter-Spread-to-Inter-Spread trade (price is based on the secondary's contract's prior day settlement) – Crossed
	`AH`	Custom-to-Custom trade
	`AH-X`	Custom-to-Custom trade – Crossed

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.