### **S&P Capital IQ Real-Time Solutions**

## **FeedOS™ Feed Description**

#### **XETRA ULTA PLUS Feed**

Reference n°: 20150430 - 20122 - 26342 - 26453



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# FEEDOS™ XETRA ULTRA PLUS DUBLIN FEED DESCRIPTION

As part of S&P Capital IQ Real-Time Solutions FeedOS™ documentation, this feed description provides you with details about the types of data broadcast on the XETRA ULTRA PLUS DUBLIN market data stream, their possible values and current FeedOS technical implementation.

The topics this feed description covers include:

- 1. Referential Data
- 2. Quotation Data
- 3. Official Closing Price
- 4. Special Behavior
- 5. Finding the Latest Information.

## 1. Referential Data

The following sections describe the characteristics of the referential data on the XETRA ULTRA PLUS DUBLIN market data stream, in terms of:

- 1.1. Available Markets and Branches
- 1.2. Types of Instruments
- 1.3. Referential Tags.

#### 1.1. Available Markets and Branches

This section details the list of Markets and Branches available on the XETRA ULTRA PLUS DUBLIN market data stream.

#### 1.1.1. Markets

The XETRA ULTRA PLUS DUBLIN market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the XETRA ULTRA PLUS DUBLIN market data stream

FeedOS Market ID	Market
XDUB	Irish Stock Exchange

The following example shows the complete list of markets available on the XETRA ULTRA PLUS DUBLIN market data stream and their IDs, returned by the dumps command:

#### 1.1.2. Branches

The example below shows the complete list of branches available on the XETRA ULTRA PLUS DUBLIN market data stream for each market, returned by the dumps command. Each branch displays the following details: FOSMarketID, SecurityType, CFICode and Quantity (of instruments):

```
BRANCHES
{ XDUB CS EXXXXX } qty: 58
{ XDUB GO DBZXXX } qty: 6879
```

## 1.2. Types of Instruments

This section describes the instruments available on the XETRA ULTRA PLUS DUBLIN market data stream, according to their type:

- 1.2.1. Equities
- 1.2.2. Bonds.

#### 1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 125/8291 = 262152291
   PriceCurrency
                              string{EUR}
   Symbol
                              string{BIR}
   Description
                              string{BANK OF IRELAND}
   SecurityType
                              string{CS}
   FOSMarketId
                              XDUB
                              string{EXXXXX}
   CFICode
   RoundLot
                              float64{1}
   MinTradeVol
                              float64{1}
   SecuritySubType
                              string{EQU}
   SecurityGroup
                              string{ISE1}
   InternalCreationDate
                              Timestamp{2015-04-28 13:47:39:958}
   InternalModificationDate
                              Timestamp{2015-04-28 13:47:59:791}
   InternalSourceId
                              uint16{158}
   InternalEntitlementId
                              int32{1209}
   LocalCodeStr
                              string{IE0030606259}
                              string{IE0030606259}
   WertpapierKennNummer
                              string{853701}
   PriceIncrement_dynamic_TableId
                                     uint32{10354788}
   OperatingMIC
                    string{XDUB}
   CCP_Eligible
                             bool{True}
                             uint32{4534}
   MARKET_XETRA_ISIX
   MARKET_XETRA_OptimalGatewayLocation string{0001}
   MARKET_XETRA_CCP_Eligible bool{True}
```

#### 1.2.2. Bonds

The sample below illustrates the details of a bond:

```
instr # 125/9402 = 262153402
   PriceCurrency
                               string{EUR}
   Symbol 3
                               string{1I4P}
   Issuer
                               string{0001}
                               string{ABBZER0%05.10.2018}
   Description
   SecurityType
                               string{GO}
   StdMaturity
                               string{201810}
                               XDUB
   FOSMarketId
   CouponPaymentDate
                               uint32{20151005}
   CFICode
                               string{DBZXXX}
                               float64{100000}
   RoundLot
   MinTradeVol
                               float64{100000}
   SecuritySubType
                               string{BON}
                               string{ISED}
   SecurityGroup
   InternalCreationDate
                               Timestamp{2015-04-28 09:17:25:911}
   InternalModificationDate
                               Timestamp{2015-04-28 09:17:45:387}
   InternalSourceId
                               uint16{158}
   InternalEntitlementId
                               int32{1209}
   LocalCodeStr
                               string{XS0810173285}
   ISIN
                               string{XS0810173285}
   PriceIncrement_static
                               float64{0.001}
   MaturityYear
                               uint16{2018}
   MaturityMonth
                               uint8{10}
   MaturityDay
                               uint8{5}
   WertpapierKennNummer
                               string{A1RTBN}
   OperatingMIC
                               string{XDUB}
   CCP_Eligible
                               bool{False}
   MARKET_XETRA_ISIX
                               uint32{483}
   MARKET_XETRA_OptimalGatewayLocation string{0001}
   MARKET_XETRA_CCP_Eligible bool{False}
```

## 1.3. Referential Tags

The following sections describe the specific referential tags available on the XETRA ULTRA PLUS DUBLIN market data stream:

- 1.3.1. SecurityGroup
- 1.3.2. CCP\_Eligible
- 1.3.3. MARKET\_XETRA\_ISIX
- 1.3.4. MARKET\_XETRA\_OptimalGatewayLocation
- 1.3.5. MARKET\_XETRA\_CCP\_Eligible.

#### 1.3.1. SecurityGroup

The values of the referential tag **SecurityGroup** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Referential* to detail the instrument group identifier.

FeedOS implementation of the tag SecurityGroup is described in the table below:

Table 2 SecurityGroup – technical implementation in FeedOS

Component	Value	Description
Tag Name	SecurityGroup	FeedOS tag name.
Numeric ID	1151	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	String	String data type.
Format / Possible Values	[Exchange Specific Name]	An <b>exchange specific name</b> assigned to a group of related securities, which may be concurrently affected by market events and actions.

#### 1.3.2. CCP\_Eligible

The values of the referential tag **CCP\_Eligible** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Referential* to specify whether an instrument is cleared via the CCP or not.

FeedOS implementation of the values currently available for the tag CCP\_Eligible is described in the following table:

Table 3 CCP\_Eligible – technical implementation in FeedOS

Component	Value	Description
Tag Name	CCP_Eligible	FeedOS tag name.
Numeric ID	9552	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	воо1	Bool data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , detailing whether an instrument is cleared via the CCP.
Possible Values	True	CCP eligibility and post trade anonymity.
	False	Default value, not sent.

#### 1.3.3. MARKET\_XETRA\_ISIX

The values of the referential tag **MARKET\_XETRA\_ISIX** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Referential* to uniquely identify an instrument across the system.

FeedOS implementation of the tag MARKET\_XETRA\_ISIX is described in the table below:

Table 4 MARKET\_XETRA\_ISIX – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_ISIX	FeedOS tag name.
Numeric ID	11101	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	UInt32	UInt32 data type.
Format / Possible Values	[Exchange Specific Value]	An <b>exchange specific value</b> , uniquely identifying an instrument across the system.

#### 1.3.4. MARKET\_XETRA\_OptimalGatewayLocation

The values of the referential tag MARKET\_XETRA\_OptimalGatewayLocation conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Referential* to identify the optimal performance gateway location for trading the instrument.

FeedOS implementation of the tag MARKET\_XETRA\_OptimalGatewayLocation is described in the table below:

Table 5 MARKET\_XETRA\_OptimalGatewayLocation – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_OptimalGatewayLocation	FeedOS tag name.
Numeric ID	11102	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	String	String data type.
Format / Possible Values	[Exchange Specific Value]	An <b>exchange specific value</b> , identifying the optimal performance gateway location for trading the instrument.

#### 1.3.5. MARKET\_XETRA\_CCP\_Eligible

The values of the referential tag **MARKET\_XETRA\_CCP\_Eligible** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Referential* to specific whether an instrument is cleared via the CCP or not.

FeedOS implementation of the tag MARKET\_XETRA\_CCP\_Eligible is described in the table below:

Table 6 MARKET\_XETRA\_CCP\_Eligible – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_CCP_Eligible	FeedOS tag name.
Numeric ID	11103	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	Воо1	Bool data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , detailing whether an instrument is cleared via the CCP or not.
Possible Values	True	CCP eligibility and post trade anonymity.
rossible values	False	Default value, not sent.

## 2. Quotation Data

The following sections describe the characteristics of the quotation data on the XETRA ULTRA PLUS DUBLIN market data stream, in terms of:

- 2.1. Quotation Values
- 2.2. TradingStatus
- 2.3. Specific Quotation Tags
- 2.4. MBL and MBO Data.

#### 2.1. Quotation Values

The example below shows the possible values of an instrument on the XETRA ULTRA PLUS DUBLIN market data stream:

```
InstrumentStatusL1
-- 125/8300
       BID: 1.1
                        5000
       ASK: 1.106
                       4347
       LastPrice
                                        float64{1.105}
                                        float64{10000}
       LastTradeQty
                                        float64{1.105}
       DailyHighPrice
       DailyLowPrice
                                        float64{1.104}
       DailyTotalVolumeTraded
                                        float64{431567}
       DailyTotalAssetTraded
                                        float64{476880.422}
       LastTradePrice
                                        float64{1.105}
       LastTradeTimestamp
                                        Timestamp{2015-04-29 09:24:33:489}
       InternalDailyOpenTimestamp
                                        Timestamp{2015-04-29 07:00:10:019}
       InternalDailyCloseTimestamp
                                        Timestamp{2015-04-28 15:31:17:072}
       InternalDailyHighTimestamp
                                        Timestamp{2015-04-28 15:15:35:324}
       InternalDailyLowTimestamp
                                        Timestamp{2015-04-28 14:07:00:792}
       InternalPriceActivityTimestamp
                                        Timestamp{2015-04-29 09:24:50:642}
       TradingStatus
                                        17=ReadyToTrade
                                        float64{1.105}
       DailyOpeningPrice
       PreviousDailyTotalVolumeTraded float64{67361}
       PreviousDailyTotalAssetTraded
                                        float64{7452.528}
       PreviousDailyClosingPrice
                                        float64{1.105}
       PreviousBusinessDay
                                        Timestamp{2015-04-28}
                                        Timestamp{2015-04-29}
        CurrentBusinessDay
       LastAuctionPrice
                                        float64{1.105}
       LastAuctionVolume
                                        float64{252}
       LastAuctionImbalanceSide
                                        char{B}
       LastAuctionImbalanceVolume
                                        float64{5748}
       PreviousInternalDailyClosingPriceType
                                               char{a}
       InternalLastAuctionTimestamp
                                        Timestamp{2015-04-28 15:30:15:127}
        PriceActivityMarketTimestamp
                                        Timestamp{2015-04-29 09:24:50:642}
       MARKET_XETRA_ULTRA_PLUS_InstrumentStatus
                                                        float64{26}
```

For more details about the fields and tags available in quotation data type, and their possible values, see *FeedOS Quotation Tags Guide*.

## 2.2. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **TradingStatus** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS 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 Levell event quotNotifTradeEventExt, for Java.

FeedOS implementation of the tag TradingStatus is described in the table below:

Table 7 Trading Status – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradingStatus	FeedOS tag name.
Numeric ID	9100	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Туре	Enum	Enumeration data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , as described below, concerning the characteristics of the trading status.
	2	Trading Halt
	5	Price Indication
Possible Values	15	New Price Indication
rossible values	17	Ready to Trade
	18	Not Available for Trading
	21	Pre-Open

### 2.3. Specific Quotation Tags

The following sections describe additional, specific quotation tags available on the XETRA ULTRA PLUS DUBLIN market data stream:

- 2.3.1. Trade Conditions
- 2.3.2. Other Values.

#### 2.3.1. Trade Conditions

The following subsections describe the trade conditions on the XETRA ULTRA PLUS DUBLIN market data stream:

- 2.3.1.1. MARKET\_XETRA\_ULTRA\_PLUS\_TradeType
- 2.3.1.2. MARKET\_XETRA\_ULTRA\_PLUS\_TradeTypeIndicator.

#### 2.3.1.1. MARKET\_XETRA\_ULTRA\_PLUS\_TradeType

Each time a trade occurs, the values of the quotation tag **MARKET\_XETRA\_ULTRA\_PLUS\_TradeType** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Context* to detail the trade type:

- 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.

FeedOS implementation of the tag XETRA\_Ultra\_Plus\_Trade\_Type is described in the table below:

Table 8 XETRA\_Ultra\_Plus\_Trade\_Type – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_ULTRA_PLUS_TradeType	FeedOS tag name.
Numeric ID	15900	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Туре	String	String data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , as described below, concerning the characteristics of the trade type.
	4	Last traded price (it indicates the normal trade; by default, not sent).
	9	Price from the subscription period
Possible Values	10	BEST price
	11	Midpoint order trade
	25	Price determined with Bundesbank participation

#### 2.3.1.2. MARKET\_XETRA\_ULTRA\_PLUS\_TradeTypeIndicator

Each time a trade occurs, the values of the quotation tag **MARKET\_XETRA\_ULTRA\_PLUS\_TradeTypeIndicator** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Context* to detail the type of trade:

- 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.

FeedOS implementation of the tag MARKET\_XETRA\_ULTRA\_PLUS\_TradeTypeIndicator is described in the table below:

Table 9 MARKET\_XETRA\_ULTRA\_PLUS\_TradeTypeIndicator – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_ULTRA_PLUS_TradeType Indicator	FeedOS tag name.
Numeric ID	15901	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	Char	Char data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , detailing the type of trade.
	A	Auction
	С	Continuous Trading
	E	End-of-Day Auction
Possible Values	F	Closing Auction
Possible values	L	Liquidity Interruption
	М	Mini Auction
	0	Opening Auction
	V	Volatility / Interruption in Continuous Trading

#### 2.3.2. Other Values

The following subsections describe the other values available on the XETRA ULTRA PLUS DUBLIN market data stream:

- 2.3.2.1. LastAuctionImbalanceSide
- 2.3.2.2. LastAuctionImbalanceVolume
- 2.3.2.3. InternalDailyClosingPriceType
- 2.3.2.4. MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus.

#### 2.3.2.1. LastAuctionImbalanceSide

The values of the quotation tag **LastAuctionImbalanceSide** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the imbalance side of a closing auction:

- 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.

FeedOS implementation of the values available for the tag LastAuctionImbalanceSide is described below:

Table 10 LastAuctionImbalanceSide – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	LastAuctionImbalanceSide	FeedOS tag name.
Numeric ID	9151	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	Char	Char data type.
Format	[Exchange Specific Value]	An <b>exchange specific value</b> , detailing the imbalance side of a closing auction.
Possible Values	1	Buy
rossible values	2	Sell

#### 2.3.2.2. LastAuctionImbalanceVolume

The values of the quotation tag **LastAuctionImbalanceVolume** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the imbalance volume of a closing auction:

- 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.

FeedOS implementation of the values available for the tag LastAuctionImbalanceVolume is described below:

Table 11 LastAuctionImbalanceVolume – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	LastAuctionImbalanceVolume	FeedOS tag name.
Numeric ID	9152	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions 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, detailing the imbalance volume of a closing auction.

#### 2.3.2.3. Internal Daily Closing Price Type

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS 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.

FeedOS implementation of the values available for the tag InternalDailyClosingPriceType is described in the table below (the values currently disseminated are highlighted in green):

Table 12 InternalDailyClosingPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	InternalDailyClosingPriceType	FeedOS tag name.
Numeric ID	9155	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Туре	Char	Char data type.
Format	[Internal Specific Value]	An <i>internal specific value</i> , detailing the type of daily closing price, as described below.
Possible Values	0	Undefined
	a	Official Close – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day.
	b	Official Indicative – Exchange has provided an indicative price and marked it as indicative, however no trading activity is observed.
	С	Official Carry Over – Explicit Closing price value from a previous trading day carried forward by the exchange to the given trading day.
	d	Last Price – Final price disseminated by the exchange for the main trading session or dissemination period of a given trading day (for indices).
	е	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.
	z	Manual – Price disseminated manually (in case of production correction).

#### 2.3.2.4. MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus

Each time a change of the instrument status occurs, the values of the quotation tag **MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus** conveyed on the XETRA ULTRA PLUS DUBLIN market data stream are disseminated via FeedOS 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 Levell event quotNotifTradeEventExt, for Java.

FeedOS implementation of the tag MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus is described in the table below:

Table 13 MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_ULTRA_PLUS_Instrument Status	FeedOS tag name.
Numeric ID	14480	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Туре	Float64	Float64 data type.
Format	[Exchange Specific Value]	An exchange specific value, as described below, concerning the status of the instrument.
	0	Start
	1	Pre Trading
	2	Pre-call
	3	Crossing Period
	4	Closing Crossing Period
	5	Opening Auction Call
	6	Intra Day Auction Call
	7	Closing Auction Call
	8	End Auction Call
	9	Auction Call
	10	Opening Auction IPO Call
	11	Opening Auction IPO Freeze
Possible Values	12	Intra Day Auction IPO Call
	13	Intra Day Auction IPO Freeze
	14	IPO
	15	Quote Driven IPO Freeze
	16	Opening Auction Pre-Orderbook Balancing
	17	Intra Day Auction Pre-Orderbook Balancing
	18	Closing Auction Pre-Orderbook Balancing
	19	End-of-day Auction Pre-Orderbook Balancing
	20	Pre-Orderbook Balancing of Quote Driver Auction
	21	Opening Auction Orderbook Balancing
	22	Intra Day Auction Orderbook Balancing
	23	Closing Auction Orderbook Balancing
	24	End-of-day Auction Orderbook Balancing

Table 13 MARKET\_XETRA\_ULTRA\_PLUS\_InstrumentStatus – technical implementation in FeedOS (Continued)

Component	Value	Description
Possible Values	25	Orderbook Balancing
	26	Continuous Trading
	27	In Between Auctions
	28	Post Trading
	29	End of Trading
	30	Halt
	31	Suspend
	32	Volatility Interruption
	35	Add
	36	Delete
	38	Call Unfreeze
	39	Continuous Auction Pre-Call
	40	Continuous Auction Call
	41	Continuous Auction Freeze
	51	Knocked Out
	52	Knocked Out / Revoked
	53	Midpoint Book Freeze
	54	Midpoint Book Unfreeze

## 2.4. MBL and MBO Data\*

The MBL book has a 10-level depth. There is no MBO.

## 3. Official Closing Price

Usually, the exchange sends the closing price. If the closing price is not sent, the last trade is used instead. There is no settlement price.

## 4. Special Behavior

The following sections describe the special behavior of the XETRA ULTRA PLUS DUBLIN market data stream in terms of:

• 4.1. Microsecond Timestamp Precision on the Level1 Market Data.

<sup>\*</sup> The MBL and MBO data may not be included by default in your Level1 data subscription, but sold separately. Depending on your contract, additional terms, conditions and fees may apply. For more details about the subscription options, please contact S&P Capital IQ Real-Time Solutions.

## 4.1. Microsecond Timestamp Precision on the Level1 Market Data

Effective **2014-06-23**, the server timestamps will display microsecond units on the Level1 Market Data, as shown in the example below (highlighted in green):

```
"TE (TradeEvent) : MARKET_TIME INSTRUMENT LAST_PRICE TRADE_QTY BID_PRICE BID_QTY ASK_PRICE ASK_QTY *CONTENT_MASK* *FLAGS*"

TE 19:55:07:508.521 262152291 * * * * 1.27 700@2
TE 20:00:48:238.168 262152291 * * * * 1.22 100@1
TE 20:00:48:240.254 262152291 * * * * 1.31 100@1
```

## 5. Finding the Latest Information

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

- E-mail: rts-support@spcapitaliq.com
- Web: https://support.quanthouse.com.