



S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

RAPID ADH (VIENNA, BUDAPEST CASH)

Reference n°: 20150724 - 26364 - 26832 - 27163

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FEEDOS™ RAPID ADH (VIENNA, BUDAPEST CASH) FEED DESCRIPTION

As part of the S&P Capital IQ Real-Time Solutions FeedOS[™] documentation, this feed description provides you with details about the types of data broadcast on the RAPID ADH (VIENNA, BUDAPEST CASH) 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. Closing Price
- 4. Finding the Latest Information.

1. Referential Data

The following sections describe the characteristics of the referential data on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream, in terms of:

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

1.1. Available Markets and Branches

This section details the list of Markets and Branches available on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream.

1.1.1. Markets

The RAPID ADH (VIENNA, BUDAPEST CASH) market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream

FeedOS Market ID	Market	
XWBO	Wiener Boerse A.G.	
XPRA	Prague Stock Exchange	
XBUD	Budapest Stock Exchange	
XLJU	Ljubljana Stock Exchange	

The following example shows the complete list of markets available on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream and their IDs, returned by the dumps command:

```
MARKETS
market # 25
                CC=AT/AUSTRIA/VIENNA, DESCR=WIENER BOERSE AG, WEB=www.wienerboerse.at
    MIC = XWBO
   TimeZone = Europe/Vienna
    Country = AT
    NbMaxInstruments = 2000000
            CC=CZ/CZECH REPUBLIC/PRAGUE, DESCR=STOCK EXCHANGE PRAGUE CO. LTD; THE,
market # 66
WEB=www.pse.cz
   MIC = XPRA
   TimeZone = Europe/Prague
    Country = CZ
    NbMaxInstruments = 2000000
market # 112
               CC=HU/HUNGARY/BUDAPEST, DESCR=BUDAPEST STOCK EXCHANGE, WEB=www.fornax.hu
    MIC = XBUD
    TimeZone = Europe/Budapest
    Country = HU
    NbMaxInstruments = 2000000
market # 230 CC=SI/SLOVENIA/LJUBLJANA, DESCR=LJUBLJANA STOCK EXCHANGE; INC.,
WEB=www.ljse.si
    MIC = XLJU
   TimeZone = Europe/Ljubljana
    Country = SL
    NbMaxInstruments = 2000000
```

1.1.2. Branches

The example below shows the complete list of branches available on the RAPID ADH (VIENNA, BUDAPEST CASH) 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
   { XWBO CORP DBVXXX } qty: 220
   { XWBO CORP DBXXXX } qty: 285
   { XWBO CORP DBZXXX } qty: 70
   { XWBO CS EXXXXX } qty: 123
   { XWBO ETF EUXXXE } qty: 3
   { XWBO ETF EUXXXX } qty: 15
   { XWBO GO DBVTXX } qty: 4
   { XWBO GO DBVXXX } qty: 1309
   { XWBO GO DBXTXX } qty: 25
   { XWBO GO DBXXXX } qty: 2125
   { XWBO GO DBZXXX } qty: 212
   { XWBO TINT DBXTXX } qty: 220
   { XWBO WAR RWXCCX } qty: 1553
   { XWBO WAR RWXCPX } qty: 757
   { XWBO WAR RWXXCX } qty: 17
   { XWBO WAR RWXXXX } qty: 4604
   { XBUD CORP DBFXXX } qty: 107
   { XBUD CORP DBVXXX } qty: 22
   { XBUD CS ESXXXX } qty: 76
   { XBUD GO DBFTXX } qty: 17
   { XBUD GO DBVTXX } qty: 5
   { XBUD MBS DBFSXX } qty: 24
   { XBUD MBS DBVSXX } qty: 3
   { XBUD MF EUCXXX } qty: 137
   { XBUD MF EUOXXX } qty: 28
   { XBUD TB DBFTFX } qty: 8
   { XBUD WAR RWXXXX } qty: 135
```

1.2. Types of Instruments

This following section describe the instruments available on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream, according to their type:

- 1.2.1. Bonds
- 1.2.2. Equities
- 1.2.3. Warrants.

1.2.1. Bonds

The sample below illustrates the details of a bond:

```
instr # 25/13811 = 52442611
   PriceCurrency
                                string{USD}
   Symbol
                                string{IACAP LIQU.NOTES S.32 DUE 2035}
   Issuer
                                string{IACS}
   Description
                                string{IACAP LIQU.NOTES S.32 DUE 2035}
   SecurityType
                                string{CORP}
   StdMaturity
                                string{203507}
   FOSMarketId
                                XWBO
                                string{DBVXXX}
   CFICode
   RoundLot
                                float64{1000}
   MinTradeVol
                                float64{1000}
   SecuritySubType
                                string{BON}
   SecurityGroup
                                string{CBS}
   MarketSegmentID
                                string{VIL}
                                Timestamp{2015-07-20 04:01:30:253}
   InternalCreationDate
   InternalModificationDate
                                Timestamp{2015-07-23 04:15:00:251}
   InternalSourceId
                                uint16{240}
   InternalAggregationId
                                uint16{240}
   InternalEntitlementId
                                int32{1121}
   LocalCodeStr
                                string{XS1246650862}
                                string{XS1246650862}
   ISIN
   PriceIncrement_static
                                float64{0.01}
   MaturityYear
                                uint16{2035}
   MaturityMonth
                                uint8{7}
   MaturityDay
                                uint8{5}
   OperatingMIC
                                string{XWBO}
   SegmentMIC
                                string{XVIE}
    MARKET_XETRA_ISIX
                                uint32{3040}
    MARKET_XETRA_OptimalGatewayLocation string{0001}
```

1.2.2. Equities

The sample below illustrates the details of an equity:

```
instr \# 25/6274 = 52435074
    PriceCurrency
                                  string{EUR}
    Symbol
                                  string{WPAG}
    Description
                                  string{WP AG}
    SecurityType
                                  string{CS}
    FOSMarketId
                                 XWBO
    CFICode
                                 string{EXXXXX}
    RoundLot
                                 float64{1}
    MinTradeVol
                                 float64{1}
                              float64{1}
string{EQU}
    SecuritySubType
   SecurityGroup string{MIDC}
MarketSegmentID string{VIM}
InternalCreationDate Timestamp{2015-04-10 04:02:00:941}
    InternalModificationDate Timestamp{2015-07-23 04:15:00:656}
    InternalSourceId
                                 uint16{240}
   Internal Aggregation Id
Internal Entitlement Id
                                 uint16{240}
                                 int32{1121}
                                 string{AT0000A1DDL3}
    LocalCodeStr
    ISIN
                                 string{AT0000A1DDL3}
    PriceIncrement_dynamic_TableId
                                          uint32{15728740}
    OperatingMIC
                    string{XWBO}
    SegmentMIC
                                 string{XVIE}
    MARKET_XETRA_ISIX uint32{567}
    MARKET_XETRA_OptimalGatewayLocation string{0001}
```

1.2.3. Warrants

The sample below illustrates the details of a warrant:

```
instr # 25/13803 = 52442603
   PriceCurrency
                                string{GBP}
   Symbol
                                string{SOUND OIL CALL 15-20}
   Description
                                string{SOUND OIL CALL 15-20}
   SecurityType
                                string{WAR}
   StdMaturity
                                string{202005}
   StrikePrice
                                float64{0.24}
   FOSMarketId
                                XWBO
   CFICode
                                string{RWXCCX}
   RoundLot
                                float64{1}
                                float64{1}
   MinTradeVol
   SecuritySubType
                                string{WAR}
   SecurityGroup
                                string{WA07}
   MarketSegmentID
                                string{VIW}
   InternalCreationDate
                                Timestamp{2015-07-17 04:01:31:207}
   InternalModificationDate
                                Timestamp{2015-07-23 04:15:00:759}
   InternalSourceId
                                uint16{240}
   InternalAggregationId
                                uint16{240}
   InternalEntitlementId
                                int32{1121}
   LocalCodeStr
                                string{GB00BY4JQH96}
   ISIN
                                string{GB00BY4JQH96}
   MaturityYear
                                uint16{2020}
   MaturityMonth
                                uint8{5}
   MaturityDay
                                uint8{22}
   PriceIncrement_dynamic_TableId
                                        uint32{15728745}
   OperatingMIC
                                string{XWBO}
   SegmentMIC
                                string{XVIE}
   MARKET_XETRA_ISIX
                               uint32{2654}
   MARKET_XETRA_OptimalGatewayLocation string{0001}
```

1.3. Specific Referential Tags

The following sections describe additional, specific referential tags available on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream:

- 1.3.1. SecurityGroup
- 1.3.2. OperatingMIC
- 1.3.3. SegmentMIC
- 1.3.4. MARKET_XETRA_ISIX
- 1.3.5. MARKET_XETRA_OptimalGatewayLocation.

1.3.1. SecurityGroup

The values of the referential tag **Security Group** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream are disseminated via FeedOS data stream in *Referential* to indicate an exchange specific name assigned to a group of related securities which may be concurrently affected by market events and actions.

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

Table 2 SecurityGroup – technical implementation in FeedOS

Component	Value	Description
Tag Name	SecurityGroup FeedOS tag name.	
Numeric ID	1151	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	String	String data type.
Format / Possible Values	[Exchange Specific Value]	An exchange specific value , indicating an exchange specific name assigned to a group of related securities which may be concurrently affected by market events and actions.

The table below shows the possible combinations of Security Types and CFI Codes, based on the instrument Security Group, before and after 2015-06-22:

Table 3 Possible Security Type and CFI Code combinations within Security Groups

Security Group	rity Group Values before 2015-06-22		Values before 2015-06-22		after 2015-06-22
AOD	CS	EXXXXX	cs	EXXXXX	
ATX	CORP CORP CS	DBXXXX DBZXXX EXXXXX	CS ETF GO GO WAR WAR	EXXXXX EUXXXX DBXXXX DBZXXX RWXCCX RWXCPX RWXXXX	
B01A	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B01S	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B03A	CORP CORP CORP	DBVXXX DBXXXX DBZXXX	GO GO	DBVXXX DBXXXX DBZXXX	
B03S	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B04A	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B05A	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B05S	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
B07A	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	
B07S	CORP	DBVXXX	GO	DBVXXX	
	CORP	DBXXXX	GO	DBXXXX	
	CORP	DBZXXX	GO	DBZXXX	

Table 3 Possible Security Type and CFI Code combinations within Security Groups (Continued)

Security Group	Values before 2015-06-22	Values after 2015-06-22
	CORP DBVXXX	GO DBVXXX
B09A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
	CORP DBVXXX	GO DBVXXX
B09S	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
	CORP DBVXXX	GO DBVXXX
B11A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
B11S	CORP DBVXXX	GO DBVXXX
5110	CORP DBXXXX	GO DBXXXX
	CORP DBVXXX	GO DBVXXX
B12A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
B.10.1	CORP DBVXXX	GO DBVXXX
B13A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
B13S	CORP DBVXXX	GO DBVXXX
	CORP DBVXXX	GO DBVXXX
B15A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
B15S	CORP DBXXXX	GO DBXXXX
	CORP DBVXXX	GO DBVXXX
B17A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
	CORP DBVXXX	GO DBVXXX
B17S	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
	CORP DBVXXX	GO DBVXXX
B19A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
B21A	CORP DBVXXX	GO DBVXXX
D2 17 (CORP DBXXXX	GO DBXXXX
	CORP DBVXXX	GO DBVXXX
B23A	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
BAC1	CORP DBVXXX	GO DBVXXX
	CORP DBXXXX	GO DBXXXX
	CORP DBVXXX	GO DBVXXX
BNCA	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
BNCS	CORP DBVXXX	GO DBVXXX
	CORP DBXXXX	GO DBXXXX
	CORP DBZXXX	GO DBZXXX
BOST		WAR RWXXXX
BSC1	CORP DBVXXX	GO DBVXXX
2001	CORP DBXXXX	GO DBXXXX

Table 3 Possible Security Type and CFI Code combinations within Security Groups (Continued)

Security Group	Values be	efore 2015-06-22	Values	after 2015-06-22
СВА	CORP CORP CORP	DBVXXX DBXXXX DBZXXX	CORP CORP CORP GO GO	DBVXXX DBXXXX DBZXXX DBVXXX DBXXXX DBXXXX
CBNS			WAR	RWXXXX
CBON			WAR	RWXXXX
CBS	CORP CORP CORP	DBVXXX DBXXXX DBZXXX	CORP CORP CORP WAR	DBVXXX DBXXXX DBZXXX RWXXXX
CCE1			WAR	RWXXXX
CCE2			WAR	RWXXXX
CDIS			WAR	RWXXXX
CDIZ			WAR	RWXXXX
CEA0			WAR WAR	RWXXCX RWXXXX
CEAP	CORP CORP	DBVXXX DBXXXX	GO GO	DBVXXX DBXXXX
CEB1			WAR WAR WAR	RWXCCX RWXCPX RWXXXX
CEB2			WAR	RWXXXX
CEB3			WAR	RWXXXX
CEB4			WAR	RWXXXX
CEB5			WAR	RWXXXX
CINV			WAR	RWXXXX
CNU1			WAR	RWXXXX
COL	CORP CS	DBVXXX EXXXXX	CS GO WAR	EXXXXX DBVXXX RWXXXX
COTH			WAR	RWXXXX
CPC2	CORP	DBXXXX	GO	DBXXXX
СРСТ	CORP CORP	DBVXXX DBXXXX	G0 G0	DBVXXX DBXXXX
CTD	CS	EXXXXX	CS WAR	EXXXXX RWXXXX
СТР	cs	EXXXXX	CS WAR	EXXXXX RWXXXX
ETF			ETF ETF	EUXXXE EUXXXX
FOAO			ETF	EUXXXX
GOVB	CORP CORP	DBVXXX DBXXXX	GO GO	DBVTXX DBXTXX
GSTR	CORP	DBXXXX	TINT	DBXTXX
GTB	CORP	DBZXXX	GO	DBZXXX

Table 3 Possible Security Type and CFI Code combinations within Security Groups (Continued)

Security Group	Values I	pefore 2015-06-22	Values	after 2015-06-22
MIDA	CS	EXXXXX	CS	EXXXXX
MIDC	cs	EXXXXX	CS WAR	EXXXXX RWXXXX
OLD	CORP CORP CORP CS	DBVXXX DBXXXX DBZXXX EXXXXX	CORP CORP CS ETF GO GO WAR WAR	DBVXXX DBXXXX DBZXXX EXXXXX EUXXXX DBVXXX DBVXXX RWXCCX RWXCCX RWXCPX RWXXXX
OLF	CS	EXXXXX	CS	EXXXXX
SNCS			WAR	RWXCCX
WA01			WAR WAR	RWXCCX RWXCPX
WA03			GO	DBXXXX
WA03			WAR WAR	RWXCCX RWXCPX
WA04			GO	DBXXXX
WA04			WAR WAR	RWXCCX RWXCPX
WA05			GO	DBXXXX
WA05			WAR WAR	RWXCCX RWXCPX
WA08			GO	DBXXXX
WA08			WAR	RWXCCX
WA11			GO GO	DBVXXX DBXXXX
WA11			WAR WAR	RWXCCX RWXCPX
WA12			GO	DBXXXX
WA12			WAR WAR	RWXCCX RWXCPX

1.3.2. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream are disseminated via FeedOS data stream in *Referential* to specify the parent MIC.

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

Table 4 OperatingMIC – technical implementation in FeedOS

Component	Value	Description
Tag Name	OperatingMIC	FeedOS tag name.
Numeric ID	9533	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	String	String data type.
Format	[Exchange Specific Value]	An exchange specific value, specifying the parent MIC.
Possible Values	XWBO	Parent MIC for all Wiener Börse's branches.
	XBUD	Parent MIC for all udapest Stock Exchange's branches.

1.3.3. SegmentMIC

The values of the referential tag **SegmentMIC** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream are disseminated via FeedOS data stream in *Referential* to specify the child MIC.

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

Table 5 SegmentMIC – technical implementation in FeedOS

Component	Value	Description
Tag Name	SegmentMIC	FeedOS tag name.
Numeric ID	9534	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	String	String data type.
Format	[Exchange Specific Value]	An exchange specific value, specifying the child MIC.
Possible Values	XVIE	Child MIC for all Wiener Börse's branches.

1.3.4. MARKET_XETRA_ISIX

The values of the referential tag **MARKET_XETRA_ISIX** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 6 MARKET_XETRA_ISIX – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_ISIX	FeedOS tag name.
Numeric ID	11101	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	UInt32	UInt32 data type.
Format / Possible Values	[Exchange Specific Value]	An exchange specific value , uniquely identifying an instrument across the system.

1.3.5. MARKET_XETRA_OptimalGatewayLocation

The values of the referential tag **MARKET_XETRA_OptimalGatewayLocation** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 7 MARKET_XETRA_OptimalGatewayLocation – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_XETRA_OptimalGatewayLocation	FeedOS tag name.
Numeric ID	11102	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	String	String data type.
Format / Possible Values	[Exchange Specific Value]	An exchange specific value , identifying the optimal performance gateway location for trading the instrument.

2. Quotation Data

The following sections describe the characteristics of the quotation data on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 RAPID ADH (VIENNA, BUDAPEST CASH) market data stream:

```
InstrumentStatusL1
-- 25/13195
       BID: 0.31
                       10000
                                @1
                       10000
       ASK: 0.35
                                @1
       LastPrice
                                        float64{0.31}
       InternalDailyOpenTimestamp
                                        Timestamp{2015-07-23 07:15:05:268}
       InternalDailyCloseTimestamp
                                        Timestamp{2015-07-22 21:00:00:183}
       InternalDailyHighTimestamp
                                        Timestamp{2015-07-22 15:25:26:662}
       InternalDailyLowTimestamp
                                        Timestamp{2015-07-22 15:25:26:662}
       InternalPriceActivityTimestamp
                                      Timestamp{2015-07-23 14:08:59:921}
       TradingStatus
                                        5=PriceIndication
       PreviousDailyClosingPrice
                                        float64{0.31}
       PreviousBusinessDay
                                        Timestamp{2015-07-22}
       CurrentBusinessDay
                                        Timestamp{2015-07-23}
       PreviousInternalDailyClosingPriceType char{d}
       MARKET_XETRA_ULTRA_PLUS_InstrumentStatus
                                                        float64{39}
       MARKET_ADH_OrderbookStateCode
                                        string{1}
```

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 RAPID ADH (VIENNA, BUDAPEST CASH) 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 8 TradingStatus – technical implementation in FeedOS

Component	Value	Description
Tag Name	TradingStatus	FeedOS tag name.
Numeric ID	9100	FeedOS unique ID disseminated 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 exchange specific value , detailing the characteristics of the trading status.

Table 8 TradingStatus – technical implementation in FeedOS (Continued)

Component	Value	Description
	2	Trading Halt
	5	Price Indication
Possible	15	New Price Indication
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 RAPID ADH (VIENNA, BUDAPEST CASH) 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 available on the RAPID ADH (VIENNA, BUDAPEST CASH) 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

The values of the quotation tag MARKET_XETRA_ULTRA_PLUS_TradeType conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 MARKET_XETRA_ULTRA_PLUS_TradeType is described in the table below:

Table 9 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 disseminated 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 exchange specific value , as described below, concerning the characteristics of the trade type.	

Table 9 XETRA Ultra Plus Trade Type – technical implementation in FeedOS (Continued)

Component	Value	Description	
Possible Values	4	Last traded price (it indicates the normal trade; by default, not sent).	
	9	Price from the subscription period	
	10	BEST price	
	11	Midpoint order trade	
	25	Price determined with Bundesbank participation	

2.3.1.2. MARKET_XETRA_ULTRA_PLUS_TradeTypeIndicator

The values of the quotation context tag **MARKET_XETRA_ULTRA_PLUS_TradeTypeIndicator** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 10 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 IQ		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 exchange trade.		An exchange specific value , detailing the type of trade.	
	Α	Auction	
	С	Continuous Trading	
	E End-of-Day Auction		
Possible Values	F	Closing Auction	
rossible 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 RAPID ADH (VIENNA, BUDAPEST CASH) market data stream:

- 2.3.2.1. LastAuctionImbalanceSide
- 2.3.2.2. InternalDailyClosingPriceType
- 2.3.2.3. XETRA_Ultra_Plus_InstrumentStatus.

2.3.2.1. LastAuctionImbalanceSide

The values of the quotation tag **LastAuctionImbalanceSide** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 tag LastAuctionImbalanceSide is described in the table below:

Table 11 LastAuctionImbalanceSide – technical implementation in FeedOS

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 exchange specific value , detailing the imbalance side of a closing auction.	
Possible	1	Buy	
Values	2	Sell	

2.3.2.2. Internal Daily Closing Price Type

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the RAPID ADH (VIENNA, BUDAPEST CASH) 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 Levell 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 Internal Daily Closing Price Type – technical implementation in FeedOS

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.	

Table 12 InternalDailyClosingPriceType – technical implementation in FeedOS (Continued)

Component	Value	Description	
	0	Undefined	
Possible Values	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).	

2.3.2.3. XETRA_Ultra_Plus_InstrumentStatus

Each time a change of the instrument status occurs, the values of the quotation tag **XETRA_Ultra_Plus_InstrumentStatus** tag in the RAPID ADH (VIENNA, BUDAPEST CASH) market data stream are disseminated via FeedOS data stream in *Other Values*:

- in the callback carrying the Levell 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_InstrumentStatus is described in the table below:

Table 13 XETRA_Ultra_Plus_InstrumentStatus – technical implementation in FeedOS

Component	Value	Description	
Tag Name	MARKET_XETRA_ULTRA_PLUS _InstrumentStatus	FeedOS tag name.	
Numeric ID	14480	FeedOS unique ID disseminated 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.	Trading Status' Mapping
	0	Start	18 - NotAvailableForTrading
	1	Pre Trading	15 - NewPriceIndication
	2	Pre-call	18 - NotAvailableForTrading
Possible	3	Crossing Period	5 - PriceIndication
Values	4	Closing Crossing Period	5 - PriceIndication
	5	Opening Auction Call	21 - PreOpen
	6	Intra Day Auction Call	5 - PriceIndication
	7	Closing Auction Call	5 - PriceIndication

Table 13 XETRA_Ultra_Plus_InstrumentStatus – technical implementation in FeedOS (Continued)

Component	Value	Description		
	8	End Auction Call	5 - PriceIndication	
	9	Auction Call	5 - PriceIndication	
	10	Opening Auction IPO Call	21 - PreOpen	
	11	Opening Auction IPO Freeze	2 - TradingHalt	
	12	Intra Day Auction IPO Call	5 - PriceIndication	
	13	Intra Day Auction IPO Freeze	2 - TradingHalt	
	14	IPO	5 - PriceIndication	
	15	Quote Driven IPO Freeze	2 - TradingHalt	
	16	Opening Auction Pre-Orderbook Balancing	21 - PreOpen	
	17	Intra Day Auction Pre-Orderbook Balancing	5 - PriceIndication	
	18	Closing Auction Pre-Orderbook Balancing	5 - PriceIndication	
	19	End-of-day Auction Pre-Orderbook Balancing	5 - PriceIndication	
	20	Pre-Orderbook Balancing of Quote Driver Auction	5 - PriceIndication	
	21	Opening Auction Orderbook Balancing	21 - PreOpen	
	22	Intra Day Auction Orderbook Balancing	5 - PriceIndication	
	23	Closing Auction Orderbook Balancing	5 - PriceIndication	
Possible	24	End-of-day Auction Orderbook Balancing	5 - PriceIndication	
Values	25	Orderbook Balancing	5 - PriceIndication	
	26	Continuous Trading	17 - ReadyToTrade	
	27	In Between Auctions	15 - New Price Indication	
	28	Post Trading	15 - NewPriceIndication	
	29	End of Trading	18 - NotAvailableForTrading	
	30	Halt	2 - TradingHalt	
	31	Suspend	2 - TradingHalt	
	32	Volatility Interruption	5 - PriceIndication	
	35	Add	18 - NotAvailableForTrading	
	36	Delete	18 - NotAvailableForTrading	
	38	Call Unfreeze	17 - ReadyToTrade	
	39	Continuous Auction Pre-Call	5 - PriceIndication	
	40	Continuous Auction Call	5 - PriceIndication	
	41	Continuous Auction Freeze	2 - TradingHalt	
	51	Knocked Out	18 - NotAvailableForTrading	
	52	Knocked Out / Revoked	5 - PriceIndication	
	53	Midpoint Book Freeze	17 - ReadyToTrade	
	54	Midpoint Book Unfreeze	17 - ReadyToTrade	

2.4. MBL and MBO Data*

The MBL book has a 20-level depth. The MBO book is full depth.

3. Closing Price

The closing price is provided by the market. If the closing price is not sent by the market, the last trade is used instead. There is no settlement price.

4. 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: support@quanthouse.com
- Web: http://support.quanthouse.com.

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.