



S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

ADH

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France

52 Rue de la Victoire 75009 Paris France

Tel: +33 (0) 1 73 02 32 11

United States

55 Water Street, 44th floor New York, NY 10041 United States of America Tel: +1-(212)-438-4346

United Kingdom

20 Canada Square Canary Wharf London E14 5LH United Kingdom Tel: +44 (0) 203 107 1676

www.spcapitaliq.com

130 East Randolph One Prudential Plaza, Suite 2900 Chicago, IL 60601 United States of America Tel: +1-(312)-233-7129

Singapore

12 Marina Boulevard #23-01 Marina Bay Financial Centre Tower 3 Singapore 018982

Tel: +65 6530 6546

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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 ADH 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 ADH 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 ADH market data stream:

- 1.1.1. Markets
- 1.1.2. Branches.

1.1.1. Markets

The ADH market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the ADH 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 list of markets available on the ADH market data stream and their IDs, returned by the command dumps:

```
MARKETS
market # 25
               CC=AT/AUSTRIA/VIENNA, DESCR=WIENER BOERSE AG, WEB=www.wienerboerse.at
    MIC = XWBO
    TimeZone = Europe/Vienna
    Country = AT
    NbMaxInstruments = 2000000
market # 66
               CC=CZ/CZECH REPUBLIC/PRAGUE, DESCR=STOCK EXCHANGE PRAGUE CO. LTD; THE,
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 list of branches available on the ADH market data stream, returned by the command dumps. Each branch displays the following details: FOSMarketID, SecurityType, CFICode and Quantity (of instruments):

```
BRANCHES
   { XWBO CS
               EMXXXB } qty: 3
   { XWBO CS EMXXXR } qty: 1
   { XWBO CS ESVTFR } qty: 1
   { XWBO CS ESVUFB } qty: 82
   { XWBO CS
             ESVUFZ } qty: 2
   { XWBO CS ESVXOR } qty: 1
   { XWBO CS ESXXXX } qty: 6
   { XWBO CS EXXXXX } qty: 1
   { XWBO ETF EUXXXX } qty: 18
   { XWBO GO DBFSCB } qty: 2
   { XWBO GO
              DBFSDB } qty: 1
   { XWBO GO
              DBFSFB } qty: 132
   { XWBO GO DBFSGB } qty: 17
   { XWBO GO DBFTAB } qty: 3
   { XWBO GO DBFTBB } qty: 3
   { XWBO GO DBFTFB } qty: 39
   { XWBO GO DBFTGB } qty: 19
   { XWBO GO DBFTTB } qty: 1
   { XWBO GO DBFUAB } qty: 7
   { XWBO GO
              DBFUBB } qty: 1
   { XWBO GO
               DBFUCB } qty: 18
   { XWBO GO
               DBFUFB } qty: 449
   { XWBO GO
               DBFUGB } qty: 62
   { XWBO GO
               DBFUGR } qty: 1
   { XWBO GO
              DBFUQB } qty: 8
   { XWBO GO
              DBVGFB } qty: 23
   { XWBO GO
              DBVGQB } qty: 4
   { XWBO GO
             DBVSCB } qty: 1
   { XWBO GO
              DBVSFB } qty: 117
   { XWBO GO
              DBVSGB } qty: 33
   { XWBO GO
               DBVTAB } qty: 5
               DBVTBB } qty: 8
   { XWBO GO
   { XWBO GO
               DBVTFB } qty: 112
              DBVTGB } qty: 10
   { XWBO GO
   { XWBO GO
               DBVTLB } qty: 1
   { XWBO GO
              DBVUBB } qty: 2
   { XWBO GO
              DBVUCB } qty: 22
   { XWBO GO DBVUFB } qty: 871
   { XWBO GO DBVUGB } qty: 78
   { XWBO GO
             DBVUQB } qty: 28
   { XWBO GO
             DBVUQR } qty: 2
   { XWBO GO
             DBXUFB } qty: 1
   { XWBO GO
               DBXXXX } qty: 495
   { XWBO GO
               DBZSFB } qty: 12
   { XWBO GO
               DBZSGB } qty: 5
               DBZTFB } qty: 2
   { XWBO GO
   { XWBO GO
               DBZTGB } qty: 5
   { XWBO GO
               DBZUAB } qty: 3
   { XWBO GO
               DBZUDB } qty: 8
   { XWBO GO
               DBZUFB } qty: 328
   { XWBO GO
              DBZUGB } qty: 7
   { XWBO GO
               DCFGAB } qty: 1
                                                                           (see next page)
```

```
{ XWBO GO
            DCFGFB } qty: 114
{ XWBO GO
            DCFGGB } qty: 15
{ XWBO GO
            DCFSFB } qty: 2
{ XWBO GO
            DCFTFB } qty: 1
{ XWBO GO
            DCFTGB } qty: 1
{ XWBO GO
            DCFUCB } qty: 1
{ XWBO GO
            DCFUDB } qty: 1
{ XWBO GO
            DCFUFB } qty: 68
{ XWBO GO
            DCFUGB } qty: 16
{ XWBO GO
            DCVGFB } qty: 88
            DCVGGB } qty: 2
{ XWBO GO
{ XWBO GO
            DCVSFB } qty: 3
{ XWBO GO
            DCVTFB } qty: 2
{ XWBO GO
            DCVUFB } qty: 117
{ XWBO GO
            DCVUGB } qty: 8
{ XWBO GO
            DCXXXX } qty: 12
{ XWBO GO
            DCZUQB } qty: 1
{ XWBO GO
            DMXXXX } qty: 71
{ XWBO GO
            DTFUGB } qty: 1
{ XWBO GO
            DTVTFB } qty: 1
{ XWBO GO
            DTVUFB } qty: 1
            DTVUGB } qty: 1
{ XWBO GO
            DTXXXX } qty: 327
{ XWBO GO
{ XWBO GO
            DWXXXX } qty: 2
{ XWBO GO
            DYXXXX } qty: 3
{ XWBO GO
            EMXXXB } qty: 1
{ XWBO INDEX TIXXXX } qty: 162
{ XWBO MF
            EUOISB } qty: 1
{ XWBO MF
            EUXXXB } qty: 5
{ XWBO MF
            EUXXXX } qty: 1
{ XWBO NONE DBFUFB } qty: 378
{ XWBO NONE DBVUAB } qty: 1
{ XWBO NONE DBVUFB } qty: 31
{ XWBO NONE DBXXXX } qty: 138
{ XWBO NONE DBZUFB } qty: 124
{ XWBO NONE DBZUGB } qty: 27
{ XWBO NONE DBZUQB } qty: 541
{ XWBO NONE DMFUFB } qty: 21
{ XWBO NONE DMVUFB } qty: 5
{ XWBO NONE DMXXXX } qty: 156
{ XWBO NONE DMZUFB } qty: 1270
{ XWBO NONE DMZUQB } qty: 1185
{ XWBO NONE DTXXXX } qty: 18
{ XWBO NONE ESVUFB } qty: 7
{ XWBO NONE ESVUFZ } qty: 1
{ XWBO NONE ESXXXX } qty: 2
{ XWBO NONE EUXXXB } qty: 1
{ XWBO NONE MRIXXX } qty: 24
{ XWBO NONE RSXXXB } qty: 1
{ XWBO NONE RWCNCB } qty: 3
{ XWBO NONE RWCNPB } qty: 3
{ XWBO NONE RWINCB } qty: 39
{ XWBO NONE RWINPB } qty: 12
{ XWBO NONE RWMNCB } qty: 2
{ XWBO NONE RWMNPB } qty: 1
                                                                         (see next page)
```

```
{ XWBO NONE RWSNCB } qty: 688
{ XWBO NONE RWSNPB } qty: 222
{ XWBO NONE RWSTCB } qty: 6
{ XWBO NONE RWTNCB } qty: 47
{ XWBO NONE RWTNPB } qty: 56
{ XWBO PS EPNUFB } qty: 1
{ XWBO PS EPNUXB } qty: 6
{ XWBO PS EPXXXX } qty: 1
{ XWBO WAR RWXXXX } qty: 1931
{ XBUD CS EXXXXX } qty: 68
{ XBUD CS MXXXXX } qty: 1
{ XBUD ETF EUXXXX } qty: 168
{ XBUD FUT FXXXXX } qty: 4702
{ XBUD GO DBXXXX } qty: 189
{ XBUD INDEX TIXXXX } qty: 4
{ XBUD NONE DBXXXX } qty: 168
{ XBUD NONE EXXXXX } qty: 8
{ XBUD NONE FXXXXX } qty: 93
{ XBUD NONE MRTXXX } qty: 12
{ XBUD OPT OXAXXX } qty: 2540
{ XBUD OPT OXEXXX } qty: 50180
```

1.2. Types of Instruments

The following sections describe the instruments available on the ADH market data stream, according to their type:

- 1.2.1. Equities
- 1.2.2. Bonds
- 1.2.3. Warrants
- 1.2.4. Indices
- 1.2.5. Futures
- 1.2.6. Options.

1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 25/7403 = 52436203
   PriceCurrency
                                string{EUR}
   Symbol
                                string{ROB}
   Issuer
                                string{3287}
   Description
                                string{ROBECO N.V.}
   SecurityType
                                string{CS}
   FOSMarketId
                                XWBO
   PriceType
                                uint8{2}
   CFICode
                                string{ESXXXX}
   {\tt RoundLot}
                                float64{1}
   SecuritySubType
                                string{UCITS share}
   SecurityGroup
                                string{OLF}
   MarketSegmentID
                                string{C3OTHER}
   MarketSegmentDesc
                                string{other listings}
   InternalCreationDate
                                Timestamp{2014-03-24 07:45:28:451}
   InternalModificationDate
                                Timestamp{2015-07-20 04:00:15:593}
   InternalSourceId
                                uint16{28}
   InternalAggregationId
                                uint16{28}
   InternalEntitlementId
                                int32{1121}
   LocalCodeStr
                                string{8_XVIE_NL0000289783}
   ISIN
                                string{NL0000289783}
   PriceIncrement_dynamic_TableId
                                        uint32{1835111}
   OperatingMIC
                                string{XWBO}
   SegmentMIC
                                string{XVIE}
```

1.2.2. Bonds

The sample below illustrates the details of a bond:

```
instr # 25/12970 = 52441770
   PriceCurrency
                                string{EUR}
   Symbol
                                string{AT0000A0XJ64}
   Issuer
                                string{81607}
   Description
                                string{JP Immo.I 3\,5% bes.Anl. 12-22}
   SecurityType
                                string{GO}
   FOSMarketId
                                XWBO
                                float64{3.5}
   CouponRate
   CouponPaymentDate
                                uint32{20151221}
   PriceType
                                uint8{1}
   CFICode
                                string{DBFSCB}
   RoundLot
                                float64{100000}
   SecuritySubType
                                string{bond}
   MarketSegmentID
                                string{C2CORP}
   MarketSegmentDesc
                                string{corporate standard sector}
   InternalCreationDate
                                Timestamp{2014-03-24 07:45:28:949}
   InternalModificationDate
                                Timestamp{2015-07-20 04:00:17:619}
   InternalSourceId
                                uint16{28}
   InternalEntitlementId
                                int32{1121}
   LocalCodeStr
                                string{8_XVIE_AT0000A0XJ64}
                                string{AT0000A0XJ64}
   ISIN
   MaturityYear
                                uint16{2022}
   MaturityMonth
                                uint8{12}
   MaturityDay
                                uint8{21}
   PriceIncrement_dynamic_TableId
                                        uint32{1835114}
   OperatingMIC
                                string{XWBO}
   SegmentMIC
                                string{XVIE}
   FaceValue
                                float64{100000}
```

1.2.3. Warrants

The sample below illustrates the details of a warrant:

```
instr \# 25/7262 = 52436062
   PriceCurrency
                                string{EUR}
    Symbol 3
                                string{AT0000A166U9}
   Issuer
                                string{7599}
   Description
                                string{RCB Call/GMK Norilsk Ni 14-15}
    SecurityType
                                string{WAR}
   StrikePrice
                                float64{18.20998}
    FOSMarketId
                                XWBO
   PriceType
                                uint8{2}
   CFICode
                                string{RWXXXX}
   RoundLot
                                float64{1}
   SecuritySubType
                                string{warrant}
   StrikeCurrency
                                string{EUR}
    InternalCreationDate
                                Timestamp{2015-04-30 04:00:30:689}
    InternalModificationDate
                                Timestamp{2015-07-23 04:00:30:689}
    InternalSourceId
                                uint16{28}
    InternalMagic
                                string{3390099}
   LocalCodeStr
                                string{9_XVIE_AT0000A166U9}
    ISIN
                                string{AT0000A166U9}
```

1.2.4. Indices

The sample below illustrates the details of an index:

```
instr # 25/1184 = 52429984
                                string{EUR}
   PriceCurrency
                                string{VOX}
   Symbol
                                string{VOENIX}
   Description
   SecurityType
                                string{INDEX}
   FOSMarketId
                                XWBO
   CFICode
                                string{TIXXXX}
   SecuritySubType
                                string{Securities}
                                Timestamp{2014-03-24 07:45:28:308}
   InternalCreationDate
   InternalModificationDate
                                Timestamp{2015-07-20 04:00:24:174}
   InternalSourceId
                                uint16{28}
   InternalAggregationId
                                uint16{28}
   InternalEntitlementId
                                int32{1100}
   LocalCodeStr
                                string{7_XVIE_VOX}
   ISIN
                                string{AT0000496906}
   OperatingMIC
                                string{XWBO}
   SegmentMIC
                                string{XVIE}
```

1.2.5. Futures

The sample below illustrates the details of a future:

```
instr # 112/59048 = 234940072
   PriceCurrency
                                string{TRY}
   Symbol
                                string{WUSD/TRY1531_2016}
   Issuer
                                string{BSE Issuer}
   SecurityType
                                string{FUT}
   FOSMarketId
                                XBUD
   PriceType
                                uint8{2}
                                string{FXXXXX}
   CFICode
   MarketSegmentID
                                string{HU5DERIV}
   MarketSegmentDesc
                                string{Hungarian Derivatives}
   InternalCreationDate
                                Timestamp{2015-07-22 06:48:15:019}
   InternalModificationDate
                                Timestamp{2015-07-23 04:25:01:754}
   InternalSourceId
                                uint16{230}
   InternalAggregationId
                                uint16{28}
   InternalEntitlementId
                                int32{1112}
   LocalCodeStr
                                string{2_XBUD_WUSD/TRY1531_2016}
   TSTN
                                string{HU0005877829}
   MaturityYear
                                uint16{2015}
                                uint8{7}
   MaturityMonth
                                uint8{29}
   MaturityDay
   PriceIncrement_dynamic_TableId
                                        uint32{1835108}
   OperatingMIC
                                string{XBUD}
```

1.2.6. Options

The sample below illustrates the details of an option:

```
instr # 112/59050 = 234940074
   PriceCurrency
                                string{HUF}
   Symbol 3
                                string{MT151000405P_2017}
   Issuer
                                string{BSE Issuer}
   SecurityType
                                string{OPT}
   StrikePrice
                                float64{405}
   FOSMarketId
                                XBUD
   PriceType
                                uint8{2}
   CFICode
                                string{OXAXXX}
   MarketSegmentID
                                string{HU5DERIV}
   MarketSegmentDesc
                                string{Hungarian Derivatives}
                                Timestamp{2015-07-22 06:48:15:718}
   InternalCreationDate
   InternalModificationDate
                                Timestamp{2015-07-23 04:25:01:828}
   InternalSourceId
                                uint16{230}
   InternalAggregationId
                                uint16{28}
   InternalEntitlementId
                                int32{1112}
   LocalCodeStr
                                string{2_XBUD_MT151000405P_2017}
   ISIN
                                string{HU0005878033}
   MaturityYear
                                uint16{2015}
   MaturityMonth
                                uint8{10}
   MaturityDay
                                uint8{16}
   PriceIncrement_dynamic_TableId
                                        uint32{1835108}
   OperatingMIC
                                string{XBUD}
```

1.3. Specific Referential Tags

The following sections describe the specific referential tags available on the ADH market data stream:

- 1.3.1. OperatingMIC
- 1.3.2. SegmentMIC.

1.3.1. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the ADH 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 2 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.
	XBUD	Budapest
Possible Values	XLJU	Ljubljana Stock Exchange
rossible values	XPRA	Prague Cash and Index Market
	XWBO	Vienna

1.3.2. SegmentMIC

The values of the referential tag **SegmentMIC** conveyed on the ADH 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 3 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	Vienna

2. Quotation Data

The following sections describe the characteristics of the quotation data on the ADH 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 examples below shows the possible values of an instrument on the ADH market data stream:

```
InstrumentStatusL1
-- 25/7397
       BID: 0 0
                        *NO ORDER*
       ASK: 0 0
                        *NO ORDER*
                                        float64{1.2}
       LastPrice
                                        float64{2900}
       LastTradeQty
       DailyHighPrice
                                        float64{1.2}
        DailyLowPrice
                                        float64{1.2}
                                        float64{2900}
        DailyTotalVolumeTraded
       DailyTotalAssetTraded
                                        float64{3480}
       LastTradePrice
                                        float64{1.2}
       LastTradeTimestamp
                                        Timestamp{2015-07-22 11:35:24:010}
       InternalDailyOpenTimestamp
                                        Timestamp{2015-07-22 10:30:00:705}
       InternalDailyCloseTimestamp
                                        Timestamp{2015-07-22 15:45:00:887}
       InternalDailyHighTimestamp
                                        Timestamp{2015-07-22 11:35:24:092}
       InternalDailyLowTimestamp
                                        Timestamp{2015-07-22 11:35:24:092}
       InternalPriceActivityTimestamp
                                        Timestamp{2015-07-22 15:45:00:887}
       TradingStatus
                                        21=PreOpen
       DailyOpeningPrice
                                        float64{1.2}
        DailyClosingPrice
                                        float64{1.2}
       PreviousDailyTotalVolumeTraded
                                        float64{0}
        PreviousDailyTotalAssetTraded
                                        float64{0}
        PreviousDailyClosingPrice
                                        float64{1.2}
       PreviousBusinessDay
                                        Timestamp{2015-07-21}
        CurrentBusinessDay
                                        Timestamp{2015-07-22}
        LastAuctionPrice
                                        float64{1.2}
        LastAuctionVolume
                                        float64{2900}
       InternalDailyClosingPriceType
                                        char{a}
        PreviousInternalDailyClosingPriceType
                                                char{a}
                                        Timestamp{2015-07-22 11:34:06:222}
        InternalLastAuctionTimestamp
       MARKET_ADH_OrderbookStateCode
                                        string{2}
```

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 ADH 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 following table:

Table 4 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. This is the numeric equivalent of the tag name.
Туре	Enum	Enum data type.
Format	[Exchange Specific Value]	An exchange specific value , detailing the characteristics of the trading status.
Possible Values	2	Trading Halt
	5	Price Indication
	15	New Price Indication
	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 ADH 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 ADH market data stream:

• 2.3.1.1. MARKET_ADH_TradeType.

2.3.1.1. MARKET_ADH_TradeType

Each time a trade occurs, the values of the quotation tag **MARKET_ADH_TradeType** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Context*:

- 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_ADH_TradeType is described in the table below:

Table 5 MARKET_ADH_TradeType – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_ADH_TradeType	FeedOS tag name.
Numeric ID	16200	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, detailing the trade type.
	6	Continuous Trading (EUREX, XETRA)
	1001	Opening Auction (XETRA)
	1002	Intraday Auction (XETRA)
	1003	Closing Auction (XETRA)
	1004	Between Auctions (not used)
	1006	Volatility Interruption (XETRA)
	1007	Mid-Point Trade (not used)
	1008	PWT Quote (XETRA)
	1009	Auction Trade (EUREX only)
	1010	Single-leg trade out of Double-leg trade (EUREX only)
Possible Values	1100	Regular Trade (TTR)
Possible values	1190	Privately Negotiated Trade (TTR)
	2001	Normal Trade (BSE, BLSE, MSE, BELEX)
	2002	Negotiated Deal (BSE only)
	2003	Spread-Spread Trade (BSE only)
	2004	Determined trade OTC (BSE only)
	2005	Negotiated Deal OTC (BSE only)
	5001	Deal (BVB only)
	5002	Auction (BVB only)
	6001	Block Trade (BLSE, PSE, PXE, MSE, BELEX)
	6002	Transfer (Reported) (BLSE, MSE)
	6003	Regular Trade (PSE / PXE only)

2.3.2. Other Values

The following subsections describe the quotation tags available on the ADH market data stream:

- 2.3.2.1. InternalDailyClosingPriceType
- 2.3.2.2. MARKET_ADH_OrderbookStateCode.

2.3.2.1. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the ADH 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 tag InternalDailyClosingPriceType is described in the table below (the values currently disseminated are highlighted in green):

Table 6 InternalDailyClosingPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	InternalDailyClosingPriceType	FeedOS tag name.
Numeric ID	9155	FeedOS unique ID disseminated on 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.
	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).

2.3.2.2. MARKET_ADH_OrderbookStateCode

Each time a modification of the order book state occurs, the values of the quotation tag MARKET_ADH_OrderbookStateCode conveyed on the ADH 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.

 $FeedOS\ implementation\ of\ the\ tag\ {\tt MARKET_ADH_OrderbookStateCode}\ is\ described\ in\ the\ table\ below:$

Table 7 MARKET_ADH_OrderbookStateCode - technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_ADH_OrderbookStateCode	FeedOS tag name.
Numeric ID	14700	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, detailing the order book state code.
	1	Closed
	2	PreTrading
	6	ContinuousTrading
	32	Open
	1001	Opening Auction
	1002	Intraday Auction
	1003	Closing Auction
	1004	Between Auction
	1006	Volatility Interruption
	1007	Extended Volatility
	1008	Call Phase of Opening Auction
	1009	Pre Order Book Balancing of Opening Auction
	1010	Order Book Balancing of Opening Auction
Possible Values	1011	Call Phase of Intraday Auction
	1012	Pre Order Book Balancing of Intraday Auction
	1013	Order Book Balancing of Intraday Auction
	1014	Call Phase of Closing Auction
	1015	Pre Order Book Balancing of Closing Auction
	1016	Order Book Balancing of Closing Auction
	1017	Initial system state for a new instrument before the first trading day
	1018	Last system state of deleted instrument after the last trading day
	1019	X Pre Call Phase
	1020	X Call Phase
	1021	PreTradeMass
	1022	TradeMass
	1027	Market Halt
	1028	PostTrade

2.4. MBL and MBO Data*

The MBL book has a 10-level depth. The MBO book is full depth.

3. Closing Price

The closing price is the last trade price upon close. The closing price can be sent by the market separately. The settlement price is handled when provided by the market.

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: https://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.