S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

ASX TRADE

Reference n°: 20150417 – 24607 – 26323 – 26324

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FEEDOS™ ASX TRADE 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 ASX TRADE market data stream, their possible values and current FeedOS technical implementation.

The topics this feed description covers include:

1. Referential Data

The following sections describe the characteristics of the referential data on the ASX TRADE market data stream, in terms of:

1.1. Available Markets and Branches

This section details the list of Markets and Branches available on the ASX TRADE market data stream.

1.1.1. Markets

The ASX TRADE market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the ASX TRADE market data stream

FeedOS Market ID	Market
XASX	ASX Operations PTY Limited
ASXP	ASX PUREMATCH
ASXB	ASX BOOKBUILD

The following example shows the complete list of markets available on the ASX TRADE market data stream and their IDs, returned by the `dumps` command:

```
MARKETS
market # 20     CC=AU/AUSTRALIA/SYDNEY,DESCR=ASX OPERATIONS PTY LIMITED, WEB=www.asx.com.au
    MIC = XASX
    TimeZone = Australia/Sydney
    Country = AU
    NbMaxInstruments = 2000000
market # 44     CC=AU/AUSTRALIA/SYDNEY,DESCR=ASX - PUREMATCH, WEB=www.asx.com.au/
trading_services/asx-trade.htm,OLD=CANX,SEQNUM=1
    MIC = ASXP
    TimeZone = Australia/Sydney
    Country = AU
    NbMaxInstruments = 2000000
market # 286    CC=AU/AUSTRALIA/SYDNEY,DESCR=ASX BOOKBUILD,
WEB=www.asx.com.au,OLD=CCFX,SEQNUM=1
    MIC = ASXB
    TimeZone = Australia/Sydney
    Country = AU
    NbMaxInstruments = 2000000
```

1.1.2. Branches

The example below shows the complete list of branches available on the ASX TRADE 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
    { XASX CS   ESXXXX } qty: 2391
    { XASX FUT  FXXXXX } qty: 21
    { XASX GO   DBVXXX } qty: 26
    { XASX GO   DBXTXM } qty: 55
    { XASX GO   DBXXXX } qty: 298
    { XASX GO   DCXXXX } qty: 15
    { XASX GO   DMFXXX } qty: 34
    { XASX GO   DMXXXX } qty: 37
    { XASX INDEX  TIXEXX } qty: 32
    { XASX INDEX  TIXXXX } qty: 29
    { XASX MF   EUMMOX } qty: 1
    { XASX MF   EUXXXE } qty: 74
    { XASX MF   MMOXXX } qty: 8
                                                                    (see next page)
```

```
{ XASX MLEG MMXXXX } qty: 1994
{ XASX MLEG SWXXXX } qty: 1
{ XASX OPT  OCADXX } qty: 14751
{ XASX OPT  OCAIXX } qty: 1964
{ XASX OPT  OCASXX } qty: 26084
{ XASX OPT  OCATXX } qty: 25
{ XASX OPT  OCAXXX } qty: 22124
{ XASX OPT  OCEDXX } qty: 37
{ XASX OPT  OCEFXX } qty: 500
{ XASX OPT  OCEIXX } qty: 22
{ XASX OPT  OCESXX } qty: 240
{ XASX OPT  OCEXXX } qty: 6055
{ XASX OPT  OPAIXX } qty: 1693
{ XASX OPT  OPASXX } qty: 25459
{ XASX OPT  OPAXXX } qty: 22124
{ XASX OPT  OPEIXX } qty: 19
{ XASX OPT  OPESXX } qty: 312
{ XASX OPT  OPEXXX } qty: 6055
{ XASX WAR  RWMXCA } qty: 773
{ XASX WAR  RWMXCE } qty: 338
{ ASXP CS   ESXXXX } qty: 10
{ ASXB CS   EMXXXM } qty: 10
```

1.2. Types of Instruments

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

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

1.2.1. Bonds

The sample below illustrates the details of a bond:

```
instr # 20/1567541 = 43510581
    PriceCurrency               string{AUD}
    Symbol                      string{AQHHD}
    Description                 string{APTPIPLNE 3.50% 30 [AQHHD]}
    SecurityType                string{GO}
    FOSMarketId                 XASX
    CouponRate                  float64{3.5}
    CFICode                     string{DBXXXX}
    RoundLot                    float64{1}
    InternalCreationDate        Timestamp{2015-03-25 19:53:25:178}
    InternalModificationDate    Timestamp{2015-03-25 19:53:25:178}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{AQHHD}
    ISIN                        string{XS1205617829}
    PriceIncrement_static       float64{0.001}
    MaturityYear                uint16{2030}
    MaturityMonth               uint8{3}
    MaturityDay                 uint8{22}
    OperatingMIC                string{XASX}
```

1.2.2. Equities

The sample below illustrates the details of an equity:

```
instr # 20/1566890 = 43509930
    PriceCurrency               string{AUD}
    Symbol                      string{SFNN}
    Description                 string{STANFIELD DEF [SFNN]}
    SecurityType                string{CS}
    FOSMarketId                 XASX
    CFICode                     string{ESXXXX}
    RoundLot                    float64{1}
    InternalCreationDate        Timestamp{2015-03-24 19:53:24:405}
    InternalModificationDate    Timestamp{2015-03-25 19:53:24:969}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{SFNN}
    ISIN                        string{AU000000SFNN5}
    PriceIncrement_dynamic_TableId      uint32{16070236}
    OperatingMIC                string{XASX}
```

1.2.3. Indices

The sample below illustrates the details of an index:

```
instr # 20/1060158 = 43003198
    PriceCurrency               string{AUD}
    Symbol                      string{XNT}
    Description                 string{S&P/ASX 200 Net Total Rtn [XNT]}
    SecurityType                string{INDEX}
    FOSMarketId                 XASX
    CFICode                     string{TIXEXX}
    RoundLot                    float64{10}
    InternalCreationDate        Timestamp{2015-03-05 19:53:28:080}
    InternalModificationDate    Timestamp{2015-03-25 19:53:25:071}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{XNT}
    PriceIncrement_static       float64{0.001}
    OperatingMIC                string{XASX}
```

1.2.4. Warrants

The sample below illustrates the details of a warrant:

```
instr # 20/1567534 = 43510574
    PriceCurrency               string{AUD}
    Symbol                      string{MYRSOE.11}
    Description                 string{MYER CTW IW [MYRSOE]}
    SecurityType                string{WAR}
    StrikePrice                 float64{0.7742}
    FOSMarketId                 XASX
    CFICode                     string{RWMXCA}
    RoundLot                    float64{1}
    InternalCreationDate        Timestamp{2015-03-25 19:53:24:118}
    InternalModificationDate    Timestamp{2015-03-25 19:53:24:118}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{MYRSOE.11}
    ISIN                        string{AU000MYRSOE0}
    MaturityYear                uint16{2016}
    MaturityMonth               uint8{6}
    MaturityDay                 uint8{23}
    PriceIncrement_dynamic_TableId      uint32{16060793}
    OperatingMIC                string{XASX}
```

1.2.5. Futures

The sample below illustrates the details of a future:

```
instr # 20/1564279 = 43507319
    PriceCurrency               string{AUD}
    Symbol                      string{XJO16SEPF.6Q}
    Description                 string{FUTR MATURING SEP16 [XJO6Q]}
    SecurityType                string{FUT}
    FOSMarketId                 XASX
    CFICode                     string{FXXXXX}
    RoundLot                    float64{10}
    InternalCreationDate        Timestamp{2015-03-19 19:53:07:701}
    InternalModificationDate    Timestamp{2015-03-25 19:53:08:305}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{XJO16SEPF.6Q}
    ISIN                        string{AU0000XJO6Q6}
    PriceIncrement_static       float64{0.01}
    MaturityYear                uint16{2016}
    MaturityMonth               uint8{9}
    MaturityDay                 uint8{15}
    OperatingMIC                string{XASX}
```

1.2.6. Multilegs

The sample below illustrates the details of a multileg:

```
instr # 20/1308408 = 43251448
    PriceCurrency               string{AUD}
    Symbol                      string{TMC_BEN_D_002}
    SecurityType                string{MLEG}
    StdMaturity                 string{D}
    StrikePrice                 float64{2}
    FOSMarketId                 XASX
    CFICode                     string{MMXXXX}
    NbLegs                      uint8{2}
    InternalCreationDate        Timestamp{2015-03-16 02:27:55:061}
    InternalModificationDate    Timestamp{2015-03-25 02:07:40:792}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{TMC_BEN_D_002}
    PriceIncrement_static       float64{0.005}
    OperatingMIC                string{XASX}
    LegFOSInstrumentCode        uint32{43413874}
    LegFOSInstrumentCode_1      uint32{43428763}
    LegRatioQty                 float64{1}
    LegRatioQty_1               float64{1}
    LegFIXSide                  '2'=Sell
    LegFIXSide_1                '1'=Buy
```

1.2.7. Options

The sample below illustrates the details of an option:

```
instr # 20/1089945 = 43032985
    PriceCurrency               string{AUD}
    Symbol                      string{CBASZW.27}
    Description                 string{CWLTH BANK RBSFE19IW [CBASZW]}
    SecurityType                string{OPT}
    StrikePrice                 float64{4.7548}
    FOSMarketId                 XASX
    CFICode                     string{OCADXX}
    RoundLot                    float64{1}
    InternalCreationDate        Timestamp{2015-03-19 19:53:22:887}
    InternalModificationDate    Timestamp{2015-03-20 05:34:51:500}
    InternalSourceId            uint16{245}
    InternalAggregationId       uint16{245}
    InternalEntitlementId       int32{1006}
    LocalCodeStr                string{CBASZW.27}
    ISIN                        string{AU000CBASZW3}
    MaturityYear                uint16{2019}
    MaturityMonth               uint8{2}
    MaturityDay                 uint8{4}
    PriceIncrement_dynamic_TableId      uint32{16059837}
    OperatingMIC                string{XASX}
```

1.3. Specific Referential Tags

The following sections detail the specific referential tags available on the ASX TRADE market data stream:

- 1.3.1. SegmentMIC

1.3.1. SegmentMIC

The values of the referential tag **SegmentMIC** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Referential* to specify the child MIC.

FeedOS implementation of the values currently available for the tag `SegmentMIC` is described in the table below:

Table 2 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.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the child MIC.
Possible Values	`ASXB`	ASX BookBuild
	`ASXP`	ASX PureMatch

2. Quotation Data

The following sections describe the characteristics of the quotation data on the ASX TRADE market data stream, in terms of:

2.1. Quotation Values

The example below shows the possible values of an instrument on the ASX TRADE market data stream:

```
InstrumentStatusL1
 -- 20/10238
         BID: 9.59       830     @3
         ASK: 9.6        195     @1
         LastPrice                       float64{9.6}
         LastTradeQty                    float64{13}
         DailyHighPrice                  float64{9.94}
         DailyLowPrice                   float64{9.46}
         DailyTotalVolumeTraded          float64{10134}
         DailyTotalAssetTraded           float64{10830.37}
         LastTradePrice                  float64{9.6}
         LastTradeTimestamp              Timestamp{2015-03-25 08:59:41:835}
         InternalDailyOpenTimestamp      Timestamp{2015-03-25 06:30:22:041}
         InternalDailyCloseTimestamp     Timestamp{2015-03-25 06:17:02:796}
         InternalDailyHighTimestamp      Timestamp{2015-03-25 07:07:12:985}
         InternalDailyLowTimestamp       Timestamp{2015-03-25 04:13:33:290}
         InternalPriceActivityTimestamp  Timestamp{2015-03-25 08:59:42:441}
         TradingStatus                   17=ReadyToTrade
         DailyOpeningPrice               float64{9.69}
         PreviousDailyTotalVolumeTraded  float64{9006}
         PreviousDailyTotalAssetTraded   float64{61461.97}
         PreviousDailyClosingPrice       float64{9.63}
         DailySettlementPrice            float64{9.61}
         PreviousBusinessDay             Timestamp{2015-03-24}
         CurrentBusinessDay              Timestamp{2015-03-25}
         LastAuctionImbalanceSide        char{O}
         InternalDailyClosingPriceType   char{d}
         OpenInterest                    float64{7}
         InternalLastAuctionTimestamp    Timestamp{2015-03-25 06:21:27:579}
         PriceActivityMarketTimestamp    Timestamp{2015-03-25 08:59:41:835}
         OpenInterestDate                Timestamp{2015-03-24}
         SettlementPriceDate             Timestamp{2015-03-25 08:00:00:000}
         SettlementPriceType             char{a}
         MARKET_OMNET_OMX_TradingStateName  string{OPEN}
```

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

2.2. Trading Status

Each time a modification of the trading status occurs, the values of the quotation tag **Trading Status** conveyed on the ASX TRADE 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 Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag **Trading Status** is described in the table below:

Table 3 Trading Status of the ASX TRADE market data stream – 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.
Type	`Enum`	Enumeration data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the trading status.
Possible Values	2	Trading Halt
	5	Price Indication
	16	Trade Dissemination Time
	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 ASX TRADE 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 ASX TRADE market data stream:

- 2.3.1.1. Trade Condition

2.3.1.1. Trade Condition

Each time a trade occurs, the values of the quotation tag **Trade Condition** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Context* to detail the conditions of 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.

FeedOS implementation of the tag `TradeCondition` is described in the table below:

Table 4 TradeCondition – technical implementation in FeedOS

Component	Value	Description
Tag Name	`TradeCondition`	FeedOS tag name.
Numeric ID	`277`	FeedOS unique ID disseminated on the 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.
Possible Values	2	Internal Trade / Crossing
	8	Buy Write (Combination)
	10 (2+8)	Internal Trade + Buy Write

2.3.2. Other Values

The following subsections describe the other values available on the ASX TRADE market data stream:

- 2.3.2.1. DailySettlementPrice
- 2.3.2.2. OpenInterest
- 2.3.2.3. InternalDailyClosingPriceType
- 2.3.2.4. SettlementPriceDate
- 2.3.2.5. OpenInterestDate
- 2.3.2.6. SettlementPriceType
- 2.3.2.7. MARKET_OMNET_OMX_TradingStateName.

2.3.2.1. DailySettlementPrice

The values of the quotation tag **DailySettlementPrice** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Other Values* to specify the value of the daily 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.

FeedOS implementation of tag `DailySettlementPrice` is described in the table below:

Table 5 DailySettlementPrice – technical implementation in FeedOS

Component	Value	Description
Tag Name	`DailySettlementPrice`	FeedOS tag name.
Numeric ID	`9133`	FeedOS unique ID disseminated on the 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***, specifying the value of the daily settlement price.

2.3.2.2. OpenInterest

The values of the quotation tag **OpenInterest** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security:

- 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 tag `OpenInterest` is described in the table below:

Table 6 OpenInterest – technical implementation in FeedOS

Component	Value	Description
Tag Name	`OpenInterest`	FeedOS tag name.
Numeric ID	`9150`	FeedOS unique ID disseminated on the 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***, detailing the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security.

2.3.2.3. InternalDailyClosingPriceType

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

Table 7 InternalDailyClosingPriceType – 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.
Type	`Char`	Char data type.
Format	*`[Internal Specific Value]`*	An ***internal specific value***, detailing the type of daily closing price, as described below.

Table 7 InternalDailyClosingPriceType – technical implementation in FeedOS (Continued)

Component	Value	Description
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.
	c	**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).
	e	**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. SettlementPriceDate

The values of the quotation tag **SettlementPriceDate** conveyed on the ASX TRADE market data stream are disseminated via FeedOS 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.

FeedOS implementation of the values currently available for the tag `SettlementPriceDate` is described below:

Table 8 SettlementPriceDate – technical implementation in FeedOS

Component	Value	Description
Tag Name	`SettlementPriceDate`	FeedOS tag name.
Numeric ID	`9380`	FeedOS unique ID disseminated on the 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.

2.3.2.5. OpenInterestDate

The values of the quotation tag **OpenInterestDate** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the date of the derivative contracts that have not been settled in the immediately previous time period for a specific underlying security:

- 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 tag `OpenInterestDate` is described below:

Table 9 OpenInterestDate – technical implementation in FeedOS

Component	Value	Description
Tag Name	`OpenInterestDate`	FeedOS tag name.
Numeric ID	`9382`	FeedOS unique ID disseminated on the 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 derivative contracts that have not been settled in the immediately previous time period for a specific underlying security.

2.3.2.6. SettlementPriceType

The values of the quotation tag **SettlementPriceDate** conveyed on the ASX TRADE market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the type of 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.

FeedOS implementation of the tag `SettlementPriceType` is described in the following table:

Table 10 SettlementPriceType – technical implementation in FeedOS

Component	Value	Description
Tag Name	`SettlementPriceType`	FeedOS tag name.
Numeric ID	`9383`	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Char`	Timestamp data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating the type of settlement price.
Possible Values	`a`	Official Daily Settlement Price

2.3.2.7. MARKET_OMNET_OMX_TradingStateName

Each time a modification of the trading state occurs, the values of the quotation tag **MARKET_OMNET_OMX_TradingStateName** conveyed on the ASX TRADE 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 Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag `MARKET_OMNET_OMX_TradingStateName` is described in the table below:

Table 11 MARKET_OMNET_OMX_TradingStateName – technical implementation in FeedOS

Component	Value	Description	
Tag Name	`MARKET_OMNET_OMX_TradingStateName`	FeedOS tag name.	
Numeric ID	14800	FeedOS unique ID disseminated on the 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 current state of the trade.	
Possible Values	BB_ALLOC	FIXSecurityTradingStatus_NotAvailableForTrading	Book Build Market Allocation
	BB_CLOSE	FIXSecurityTradingStatus_NotAvailableForTrading	Book Build Market Close
	BB_MARKET_ENQUIRE	FIXSecurityTradingStatus_NotAvailableForTrading	Book Build Market Enquire
	BB_MARKET_OPEN	FIXSecurityTradingStatus_ReadyToTrade	Book Build Market Open
	BB_OPEN	FIXSecurityTradingStatus_ReadyToTrade	Book Build Market Open
	BB_PREOPEN	FIXSecurityTradingStatus_PreOpen	Book Build Market Pre-Open
	OPEN_VMB	FIXSecurityTradingStatus_ReadyToTrade	Open Volume Match Book
	WAIT_VMB	FIXSecurityTradingStatus_NotAvailableForTrading	Wait Volume Match Book
	PRE_NR	FIXSecurityTradingStatus_NotAvailableForTrading	The market allows the same order functionality as the PRE_OPEN session state.
	TRADING_HALT	FIXSecurityTradingStatus_TradingHalt	The market allows the same order functionality as the PRE_OPEN session state: • Enquiry • Order Entry • Order Cancellation • Order Amend • Trade Cancellation • Trade Reporting (Reporting of allowable Trade Reports, those that were consummated prior to the Suspend session state and have previously been submitted to Market Control as a consummated trade. Market Control will report these trades on behalf of Participants).
	SUSPEND	FIXSecurityTradingStatus_TradingHalt	The market allows: • Enquiry • Order Cancellation • Trade Reporting (Reporting of allowable Trade Reports, those that were consummated prior to the Suspend session state and have previously been submitted to Market Control as a consummated trade. Market Control will report these trades on behalf of Participants) • Trade Cancellation No matching of orders occurs.

Table 11 MARKET_OMNET_OMX_TradingStateName – technical implementation in FeedOS (Continued)

Component	Value	Description	
Possible Values	ADJUST	FIXSecurityTradingStatus_ NotAvailableForTrading	The market allows: • Enquiry • Order Cancellation • Order Amend (cannot improve position inmarket, eg cannot increase quantities or improve price). • Only available to permissioned users. • Trade Reporting • Trade Cancellation No matching of orders occurs.
	PRE_OPEN	FIXSecurityTradingStatus_ PreOpen	The market allows: • Enquiry • Order Entry • Order Cancellation • Order Amend • Trade Reporting • Trade Cancellation The market may overlap, there is no matching of orders.
	ENQUIRE	FIXSecurityTradingStatus_ NotAvailableForTrading	Enquire only
	ABB_AUCTION	FIXSecurityTradingStatus_ NotAvailableForTrading	The market allows: • Enquiry • Order Entry • Order Cancellation • Order Amend The market may overlap, there is no matching of orders.
	ADJUST_ON	FIXSecurityTradingStatus_ NotAvailableForTrading	All existing order maintenance rules apply.
	CLOSE	FIXSecurityTradingStatus_ NotAvailableForTrading	Enquiry only
	CSPA	FIXSecurityTradingStatus_ TradeDisseminationTime	Phase starts with an auction of overlapping orders, then no trading functions allowed.
	LATE_TRADING	FIXSecurityTradingStatus_ NotAvailableForTrading	The market allows: • Enquiry • Order Cancellation • Order Amend (cannot improve position in market, eg cannot increase quantities or improve price) • Trade Reporting • Trade Cancellation No matching of orders occurs.
	OPEN	FIXSecurityTradingStatus_ ReadyToTrade	The market allows: • Enquiry • Order Entry • Order Cancellation • Order Amend • Trade Reporting • Trade Cancellation Phase starts with an auction of overlapping orders then continuous matching of orders occurs.

Table 11 MARKET_OMNET_OMX_TradingStateName – technical implementation in FeedOS (Continued)

Component	Value	Description	
Possible Values	OPEN_NIGHT-TRADING	FIXSecurityTradingStatus_ ReadyToTrade	The market allows: • Enquiry • Order Entry • Order Cancellation • Order Amend • Trade Reporting • Trade Cancellation. Phase starts with an auction of overlapping orders then continuous matching of orders occurs.
	PRE_CSPA	FIXSecurityTradingStatus_ PriceIndication	The market allows: • Enquiry • Order Cancellation.
	PURGE_ORDERS	FIXSecurityTradingStatus_ NotAvailableForTrading	Orders meeting the purge criteria (too far from market, day only, expiry, ISS changes) will be centrally inactivated. If the order is not reactivated the next day it will then be deleted from the system the following night. The market allows: • Enquiry • Trade Reporting • Trade Cancellation.
	SYSTEM_MAINTENANCE	FIXSecurityTradingStatus_ NotAvailableForTrading	Enquiry only
	OPEN_QUOTE-DISPLAY	FIXSecurityTradingStatus_ NotAvailableForTrading	The market allows: • Enquiry • Order Entry, Cancellation and Amendment by issuers presenting indicative Bids and Offers only by permissioned users of the issuers of the quoted instrument. • Trade Reporting, representing manual matching between the issuer of the quoted instrument and counterparty. • Trade Cancellation. There is no continuous matching of orders in this session state.
	REG_HALT	FIXSecurityTradingStatus_ NotAvailableForTrading	Registration Halt
	INTERNATIONAL_HALT	FIXSecurityTradingStatus_ NotAvailableForTrading	International Halt

2.4. MBL, MBO and BBO Data*

The MBL and MBO book are full depth. The MBO data is naturally crossed during auction and some trade kinematics.

* The MBL, MBO and BBO 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.

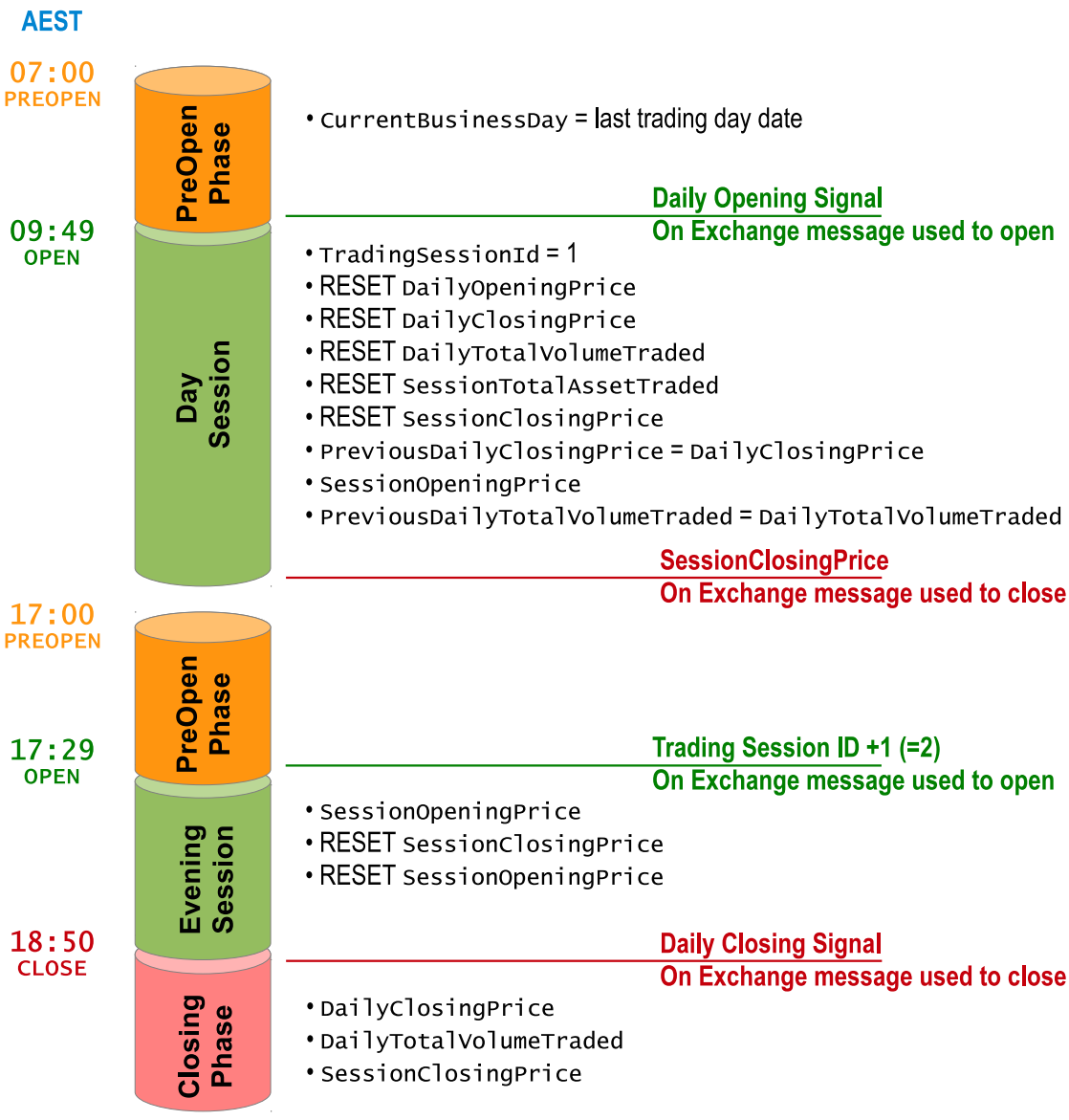
3. Official Closing Price

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

4. Multi-Session Kinematics

The following diagram describes the main trading phases and the update mechanism of the tags on the ASX TRADE market data stream for a future instrument:

Figure 1 Update mechanism of the tags on the ASX TRADE market data stream during a regular trading day for a future instrument



5. Special Behavior

The following sections detail the special behavior of the ASX TRADE market data stream:

- 5.1. Minimum Price Movement Format
- 5.2. Microsecond Timestamp Precision on the Level1 Market Data.

5.1. Minimum Price Movement Format

The format of the minimum price movement of a trading instrument is expressed in dollars, not in cents, as shown in the example below:

```
Price expressed in dollars
TABLE # 16062665

>= 2       :   0.01
>= 0.1     :   0.005
>= 0.001   :   0.001
```

5.2. Microsecond Timestamp Precision on the Level1 Market Data

Effective 2015-04-20, the server timestamps displays 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      11:00:22:091.520     20/1560837       *       *       *       *       12.42    1@1
TE      11:00:22:091.612     20/1560837       *       *       11.75   26@5    *        *
TE      11:00:22:091.612     20/1560837       *       *       *       *       6        942@39
TE      11:00:22:091.868     20/1560837       *       *       13.25   23@4    *        *
```

6. 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.