S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

SHANGHAI

Reference n°: 20150515 – 17860 – 26633 – 26634

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Reference 20150515 – 17860 – 26633 – 26634
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FEEDOS™ SHANGHAI 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 SHANGHAI 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 SHANGHAI market data stream, in terms of:

1.1. Available Markets and Branches

This section details the list of markets and branches available on the SHANGHAI market data stream:

1.1.1. Markets

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

Table 1 List of markets available on the SHANGHAI market data stream

FeedOS Market ID	Market
XSHG	Shanghai Stock Exchange

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

```
MARKETS
market # 58     CC=CN/CHINA/SHANGHAI,DESCR=SHANGHAI STOCK EXCHANGE,WEB=www.sse.com.cn
    MIC = XSHG
    TimeZone = Asia/Shanghai
    Country = CN
    NbMaxInstruments = 2000000
```

1.1.2. Branches

The example below shows the list of branches available on the SHANGHAI market data stream, returned by the command `dumps`. Each branch displays the following details: `FOSMarketID`, `SecurityType`, `CFICode` and `Quantity` (of instruments):

```
BRANCHES
    { XSHG CB    DCXXXX } qty: 190
    { XSHG CORP  DBXGXR } qty: 3076
    { XSHG CORP  DBXXXX } qty: 3764
    { XSHG CORP  DCXXXX } qty: 30
    { XSHG CS    ESXXXX } qty: 1090
    { XSHG GO    DBXXXX } qty: 274
    { XSHG GO    DNXXXX } qty: 388
    { XSHG INDEX TIXXXX } qty: 287
    { XSHG MF    EUXXXX } qty: 752
    { XSHG REPO  DMFXXX } qty: 30
    { XSHG TB    DBXTXX } qty: 698
```

1.2. Types of Instruments

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

- 1.2.1. Equities
- 1.2.2. Bonds
- 1.2.3. Indices.

1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 58/760577 = 122395393
    PriceCurrency               string{CNY}
    Symbol                      string{603718}
    Description                 string{N 海利 }
    SecurityType                string{CS}
    FOSMarketId                 XSHG
    CFICode                     string{ESXXXX}
    RoundLot                    float64{100}
    SecuritySubType             string{ASH}
    InternalCreationDate        Timestamp{2015-05-15 00:40:02:937}
    InternalModificationDate    Timestamp{2015-05-15 00:55:00:748}
    InternalSourceId            uint16{11}
    InternalAggregationId       uint16{11}
    InternalEntitlementId       int32{1082}
    LocalCodeStr                string{603718}
    PriceIncrement_static       float64{0.01}
    OperatingMIC                string{XSHG}
```

1.2.2. Bonds

The sample below illustrates the details of a bond:

```
instr # 58/760558 = 122395374
    PriceCurrency               string{CNY}
    Symbol                      string{122369}
    Description                 string{13 包钢 04}
    SecurityType                string{CORP}
    FOSMarketId                 XSHG
    CouponRate                  float64{4.75}
    IssueDate                   Timestamp{2015-04-21}
    CFICode                     string{DBXGXR}
    RoundLot                    float64{1}
    SecuritySubType             string{CPF}
    DatedDate                   Timestamp{2015-05-11}
    InternalCreationDate        Timestamp{2015-05-11 00:40:02:894}
    InternalModificationDate    Timestamp{2015-05-12 00:55:00:374}
    InternalSourceId            uint16{11}
    InternalAggregationId       uint16{11}
    InternalEntitlementId       int32{1082}
    LocalCodeStr                string{122369}
    PriceIncrement_static       float64{0.01}
    MaturityYear                uint16{2018}
    MaturityMonth               uint8{4}
    MaturityDay                 uint8{21}
    OperatingMIC                string{XSHG}
    FaceValue                   float64{100}
    RateType                    char{X}
    PaymentPeriod               uint16{360}
```

1.2.3. Indices

The sample below illustrates the details of an index:

```
instr # 58/750284 = 122385100
    Symbol                      string{000997}
    Description                 string{ 大消费 }
    SecurityType                string{INDEX}
    FOSMarketId                 XSHG
    CFICode                     string{TIXXXX}
    InternalCreationDate        Timestamp{2015-02-26 03:14:14:316}
    InternalModificationDate    Timestamp{2015-02-26 06:08:48:898}
    InternalSourceId            uint16{11}
    InternalAggregationId       uint16{11}
    InternalEntitlementId       int32{1083}
    LocalCodeStr                string{000997}
    OperatingMIC                string{XSHG}
```

1.3. Specific Referential Tags

The following sections describe additional, specific referential tags available on the SHANGHAI market data stream:

- 1.3.1. OperatingMIC.

1.3.1. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the SHANGHAI 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.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the parent MIC.
Possible Values	`XSHG`	Shanghai Stock Exchange

2. Quotation Data

The following sections describe the characteristics of the quotation data on the SHANGHAI 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 SHANGHAI market data stream:

```
InstrumentStatusL1
-- 58/760558
        BID: 100        200     @1
        ASK: 100.1      6       @1
        LastPrice                       float64{100.05}
        LastTradeQty                    float64{200}
        DailyHighPrice                  float64{100.1}
        DailyLowPrice                   float64{99.8}
        DailyTotalVolumeTraded          float64{1348}
        DailyTotalAssetTraded           float64{134785.4}
        LastTradePrice                  float64{100.05}
        LastTradeTimestamp              Timestamp{2015-05-15 06:13:23:068}
        InternalDailyOpenTimestamp      Timestamp{2015-05-15 01:25:08:506}
        InternalDailyCloseTimestamp     Timestamp{2015-05-15 07:00:04:675}
        InternalPriceActivityTimestamp  Timestamp{2015-05-15 07:00:04:675}
        TradingStatus                   18=NotAvailableForTrading
        TradingSessionId                int8{2}
        SessionTotalOffBookAssetTraded  float64{0}
        SessionTotalOffBookVolumeTraded float64{0}
        PriorSessionsTotalAssetTraded   float64{20559.66}
        PriorSessionsTotalVolumeTraded  float64{206}
        PriorSessionsTotalOffBookAssetTraded    float64{0}
        PriorSessionsTotalOffBookVolumeTraded   float64{0}
        SessionTotalVolumeTraded        float64{1142}
        SessionOpeningPrice             float64{99.81}
        PreviousSessionClosingPrice     float64{99.81}
        SessionTotalAssetTraded         float64{114225.74}
        SessionClosingPrice             float64{100.05}
        DailyOpeningPrice               float64{99.8}
        DailyClosingPrice               float64{100.05}
        PreviousDailyTotalVolumeTraded  float64{1095}
        PreviousDailyTotalAssetTraded   float64{109491.68}
        PreviousDailyClosingPrice       float64{100.1}
        PreviousBusinessDay             Timestamp{2015-05-14}
        CurrentBusinessDay              Timestamp{2015-05-15}
        LastAuctionImbalanceSide        char{N}
        InternalDailyClosingPriceType   char{a}
        PreviousInternalDailyClosingPriceType   char{a}
        InternalLastAuctionTimestamp    Timestamp{2015-05-11 01:25:04:843}
        PriceActivityMarketTimestamp    Timestamp{2015-05-15 07:00:00}
```

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 SHANGHAI 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 `TradingStatus` is described in the following table:

Table 3 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.
Type	`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
	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 SHANGHAI market data stream:

- 2.3.1. Other Values.

2.3.1. Other Values

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

- 2.3.1.1. LastAuctionImbalanceSide
- 2.3.1.2. InternalDailyClosingPriceType.

2.3.1.1. LastAuctionImbalanceSide

The values of the quotation tag **LastAuctionImbalanceSide** conveyed on the SHANGHAI 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 Level1 event `quotNotifTradeEventExt`, for Java.

FeedOS implementation of the tag `LastAuctionImbalanceSide` is described below:

Table 4 LastAuctionImbalanceSide – technical implementation in FeedOS

Component	Value	Description
Tag Name	`LastAuctionImbalanceSide`	FeedOS tag name.
Numeric ID	`9151`	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`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the imbalance side of a closing auction.
Possible Values	`B`	Buy
	`N`	No Imbalance
	`S`	Sell

2.3.1.2. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the SHANGHAI 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 5 InternalDailyClosingPriceType – technical implementation in FeedOS

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

Table 5 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).

2.4. MBL and MBO Data*

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

3. Closing Price

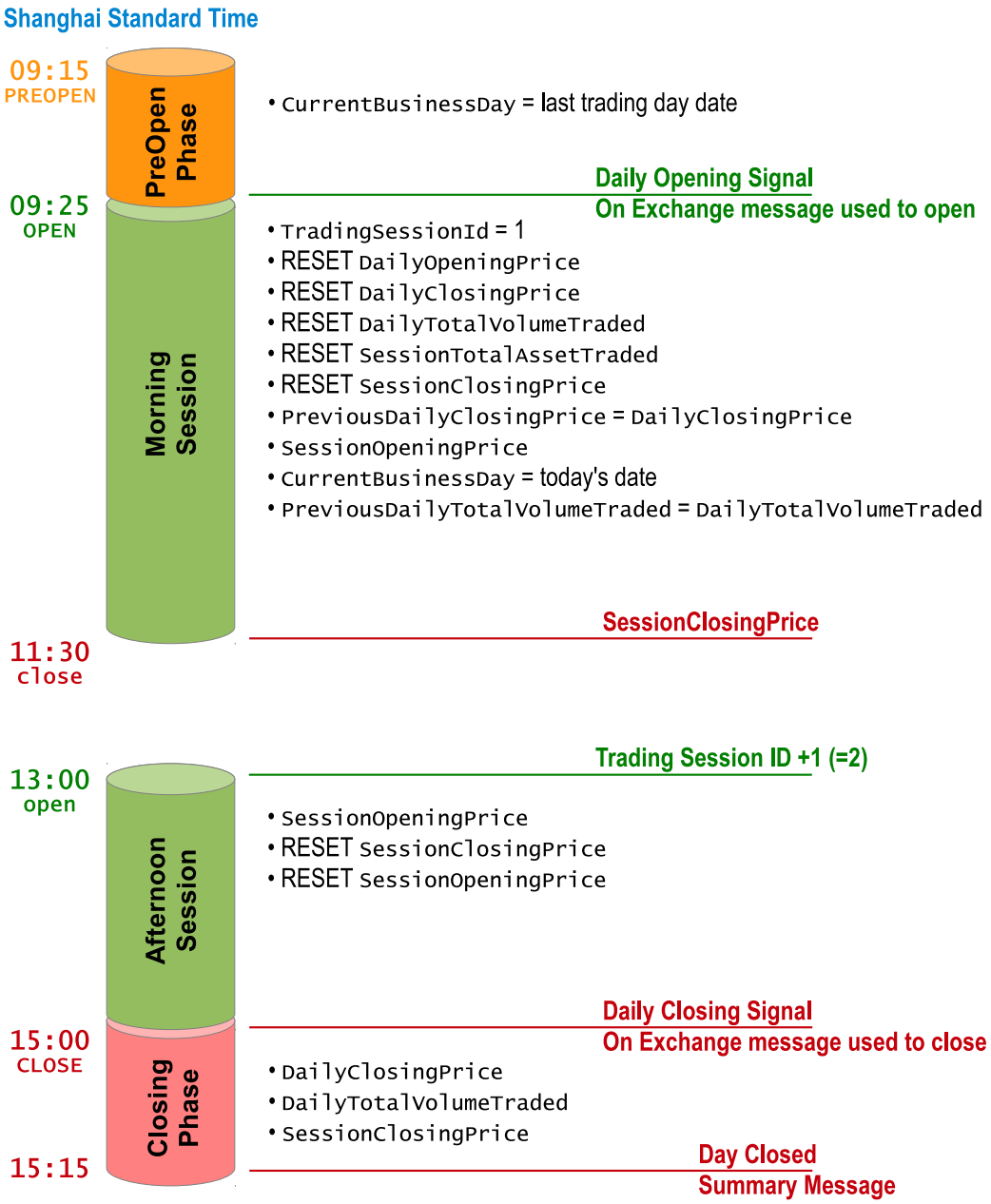
The closing price is provided by the market. If the closing price is not sent by the market, the last trade is used instead. When a stock splits, the closing price is adjusted after the closing. There is no settlement price.

4. Multi-Session Kinematics

The following diagram describes the main trading phases and the update mechanism of the tags on the SHANGHAI market data stream:

* The MBL and 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.

Figure 1 Example of tags update mechanism on the SHANGHAI market data stream



5. Finding the Latest Information

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

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