S&P Capital IQ Real-Time Solutions

FeedOS™ Feed Description

MICEX FAST

Reference n°: 20150407 – 24620 – 26203

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Reference 20150407 – 24620 – 26203
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FEEDOS™ MICEX FAST 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 MICEX FAST 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 MICEX FAST market data stream, in terms of:

1.1. Available Markets and Branches

This section details the list of Markets and Branches available on the MICEX FAST market data stream.

1.1.1. Markets

The MICEX FAST market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the MICEX FAST market data stream

FeedOS Market ID	Market
MISX	MICEX STOCK EXCHANGE

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

```
MARKETS
market # 486    CC=RU/RUSSIA/MOSCOW,DESCR=MICEX STOCK EXCHANGE,WEB=www.micex.com
    MIC = MISX
    TimeZone = Europe/Moscow
    Country = RU
    NbMaxInstruments = 2000000
```

1.1.2. Branches

The example below shows the complete list of branches available on the MICEX FAST 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
    { MISX COFP   EUXXXX } qty: 65
    { MISX CORP   DBXXXX } qty: 5365
    { MISX CS     ESXXXX } qty: 1838
    { MISX ETF    EUOXXE } qty: 33
    { MISX EUSOV  DBXTXX } qty: 424
    { MISX FXFWD  TCFXXX } qty: 10
    { MISX FXSPOT TCSXXX } qty: 60
    { MISX FXSWAP TCFXXX } qty: 96
    { MISX GO     DBXXXX } qty: 454
    { MISX INDEX  TIXXXX } qty: 34
    { MISX MF     EUXXXX } qty: 1294
    { MISX PS     EPXXXX } qty: 423
```

1.2. Types of Instruments

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

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

1.2.1. Bonds

The sample below illustrates the details of a bond:

```
instr # 486/1014625 = 1020230497
    PriceCurrency               string{RUB}
    Symbol                      string{SU29006RMFS2}
    Description                 string{OFZ-PD 29006}
    SecurityType                string{EUSOV}
    StdMaturity                 string{20250129}
    FOSMarketId                 MISX
    CouponRate                  float64{0.06313}
    CouponPaymentDate           uint32{20150812}
    CFICode                     string{DBXTXX}
    RoundLot                    float64{1}
    MarketSegmentID             string{PTOB}
    InternalCreationDate        Timestamp{2015-03-23 06:19:15:576}
    InternalModificationDate    Timestamp{2015-03-23 06:19:15:576}
    InternalSourceId            uint16{248}
    InternalAggregationId       uint16{248}
    InternalEntitlementId       int32{1177}
    LocalCodeStr                string{PTOB_SU29006RMFS2}
    ISIN                        string{RU000A0JV4L2}
    PriceIncrement_static       float64{0.0001}
    PriceDisplayPrecision       int16{4}
    MaturityYear                uint16{2025}
    MaturityMonth               uint8{1}
    MaturityDay                 uint8{29}
    OperatingMIC                string{MISX}
    OutstandingSharesBillions   int32{0}
    OutstandingShares           int32{400000000}
    MARKET_MICEX_FaceValue      float64{1000}
```

1.2.2. Equities

The sample below illustrates the details of an equity:

```
instr # 486/1014725 = 1020230597
    PriceCurrency               string{RUB}
    Symbol                      string{RUAL}
    Description                 string{United Company RUSAL Plc}
    SecurityType                string{CS}
    FOSMarketId                 MISX
    CFICode                     string{ESXXXX}
    RoundLot                    float64{100}
    MarketSegmentID             string{EQRP}
    InternalCreationDate        Timestamp{2015-04-02 21:02:01:183}
    InternalModificationDate    Timestamp{2015-04-02 21:02:01:183}
    InternalSourceId            uint16{248}
    InternalAggregationId       uint16{248}
    InternalEntitlementId       int32{1176}
    LocalCodeStr                string{EQRP_RUAL}
    ISIN                        string{JE00B5BCW814}
    PriceIncrement_static       float64{0.01}
    PriceDisplayPrecision       int16{4}
    OperatingMIC                string{MISX}
    OutstandingSharesBillions   int32{15}
    OutstandingShares           int32{193014862}
    MARKET_MICEX_FaceValue      float64{0.01}
```

1.2.3. Indices

The sample below illustrates the details of an index:

```
instr # 486/1008185 = 1020224057
    PriceCurrency               string{RUB}
    Symbol                      string{MICEXTRN}
    Description                 string{MICEX Transport}
    SecurityType                string{INDEX}
    FOSMarketId                 MISX
    CFICode                     string{TIXXXX}
    RoundLot                    float64{1}
    MarketSegmentID             string{TQBR}
    InternalCreationDate        Timestamp{2014-06-07 11:10:16:876}
    InternalModificationDate    Timestamp{2014-12-21 11:53:23:656}
    InternalSourceId            uint16{248}
    InternalAggregationId       uint16{248}
    InternalEntitlementId       int32{1178}
    LocalCodeStr                string{TQBR_MICEXTRN}
    PriceDisplayPrecision       int16{2}
    OperatingMIC                string{MISX}
```

1.2.4. Currencies

The sample below illustrates the details of a currency:

```
instr # 486/1001115 = 1020216987
    PriceCurrency               string{RUB}
    Symbol                      string{USD000UTSTOM}
    Description                 string{USDRUB_TOM - USD/RUB}
    SecurityType                string{FXSPOT}
    FOSMarketId                 MISX
    CFICode                     string{TCSXXX}
    RoundLot                    float64{1}
    MarketSegmentID             string{CNGD}
    InternalCreationDate        Timestamp{2014-06-07 11:08:48:791}
    InternalModificationDate    Timestamp{2014-12-21 11:53:23:629}
    InternalSourceId            uint16{248}
    InternalAggregationId       uint16{248}
    InternalEntitlementId       int32{1179}
    LocalCodeStr                string{CNGD_USD000UTSTOM}
    PriceIncrement_static       float64{0.0001}
    OperatingMIC                string{MISX}
    MARKET_MICEX_FaceValue      float64{1}
```

1.3. Specific Referential Tags

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

- 1.3.1. OperatingMIC
- 1.3.2. MARKET_MICEX_FaceValue.

1.3.1. OperatingMIC

The values of the referential tag **Operating MIC** conveyed on the MICEX FAST 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	`MISX`	Parent MIC for all MICEX FAST branches.

1.3.2. MARKET_MICEX_FaceValue

The values of the referential tag **MARKET MICEX Face Value** conveyed on the MICEX FAST market data stream are disseminated via FeedOS data stream in *Referential* to specify the face value of the security.

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

Table 3 MARKET_MICEX_FaceValue – technical implementation in FeedOS

Component	Value	Description
Tag Name	`MARKET_MICEX_FaceValue`	FeedOS tag name.
Numeric ID	`11401`	FeedOS unique ID disseminated on 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*** (numeric) that provides the face value of the security. It is expressed in the security currency.

2. Quotation Data

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

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

2.1. Quotation Values

The example below shows the possible values of an instrument on the MICEX FAST market data stream:

```
InstrumentStatusL1
-- 486/1013625
        BID: 1198.7     56      @3
        ASK: 1198.8     51      @3
        LastPrice                       float64{1198.9}
        LastTradeQty                    float64{10}
        DailyHighPrice                  float64{1199}
        DailyLowPrice                   float64{1198.6}
        DailyTotalVolumeTraded          float64{1848}
        DailyTotalAssetTraded           float64{2184220.2}
        LastTradePrice                  float64{1198.9}
        LastTradeTimestamp              Timestamp{2015-03-30 12:38:09}
        InternalDailyOpenTimestamp      Timestamp{2015-03-30 06:48:20:984}
        InternalDailyCloseTimestamp     Timestamp{2015-03-30 05:23:28:712}
        InternalDailyHighTimestamp      Timestamp{2015-03-30 06:48:50:900}
        InternalDailyLowTimestamp       Timestamp{2015-03-30 06:48:47:899}
        InternalPriceActivityTimestamp  Timestamp{2015-03-30 12:41:03:326}
        TradingStatus                   17=ReadyToTrade
        SessionVWAPPrice                float64{1198.8}
        DailyOpeningPrice               float64{1198.8}
        PreviousDailyTotalVolumeTraded  float64{0}
        PreviousDailyTotalAssetTraded   float64{0}
        PreviousDailyClosingPrice       float64{1201}
        PreviousBusinessDay             Timestamp{2015-03-30}
        CurrentBusinessDay              Timestamp{2015-03-30}
        InternalDailyClosingPriceType   char{a}
        DailyHighBidPrice               float64{1198.8}
        DailyLowAskPrice                float64{1198.8}
        PriceActivityMarketTimestamp    Timestamp{2015-03-30 12:41:03:325}
        MARKET_MICEX_SecurityTradingStatus      uint16{17}
```

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** in the MICEX FAST 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 table below:

Table 4 TradingStatus of the MICEX FAST 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	`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 MICEX FAST market data stream:

- 2.3.1. Other Values.

2.3.1. Other Values

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

- 2.3.1.1. MARKET_MICEX_SecurityTradingStatus.

2.3.1.1. MARKET_MICEX_SecurityTradingStatus

The values of the quotation tag **MARKET_MICEX_SecurityTradingStatus** conveyed on the MICEX FAST market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the trading status of a MICEX 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 `MARKET_MICEX_SecurityTradingStatus` is described in the table below:

Table 5 MARKET_MICEX_SecurityTradingStatus – technical implementation in FeedOS

Component	Value	Description
Tag Name	`MARKET_MICEX_SecurityTradingStatus`	FeedOS tag name.
Numeric ID	`15070`	FeedOS unique ID broadcast on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`UInt16`	UInt16 data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating the trading status of a MICEX Security.

Table 5 MARKET_MICEX_SecurityTradingStatus – technical implementation in FeedOS (Continued)

Component	Value	Description
Possible Values	2	Break in trading
	17	Normal trading
	18	Not available for trading / Trading closed
	102	Closing auction
	103	Closing period
	106	Dark pool auction
	107	Discrete auction
	118	Opening period
	119	Opening auction period
	120	Trading at Closing auction price

2.4. MBL, MBO and BBO Data*

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

3. Official Closing Price

The closing price is the last trade price upon close. When a stock splits, the closing price is adjusted after the closing. There is no settlement price.

4. Special Behavior

The following sections detail the special behavior of the MICEX FAST market data stream:

- 4.1. RoundLot Use
- 4.2. Update of the Level1 Market Data Kinematics – Opening Auctions.

4.1. RoundLot Use

The Bid/Ask quantities and the `LastQuantity` take into consideration the Round Lot. However, the quantity is no longer multiplied by the Round Lot.

* 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.

4.2. Update of the Level1 Market Data Kinematics – Opening Auctions

In the Level1 Market Data Kinematics **before 2015-04-20**, the Trading Phase is preceded by a Pre-Trading Phase, as shown in the example below:

```
"TE (TradeEvent) : MARKET_TIME INSTRUMENT LAST_PRICE TRADE_QTY BID_PRICE BID_QTY ASK_PRICE
ASK_QTY *CONTENT_MASK* *FLAGS*"
"VU (ValuesUpdate) : SERVER_TIME INSTRUMENT VALUES..."
"SI (TradeEvent) *SIGNAL* : SERVER_TIME INSTRUMENT SIGNAL LAST_PRICE"

VU    06:45:00:086    1020227610   TradingStatus=21 [Pre-Trade]
VU    06:59:59:177    1020227610   TradingStatus=18
VU    06:59:59:710    1020227610   DailyHighBidPrice=5.31 DailyLowAskPrice=5.68
SI    07:00:00:444    1020227610   OPEN *
TE    07:00:00:444    1020227610   * * * * * * O
VU    07:00:00:444    1020227610   TradingStatus=17
TE    07:00:00:730    1020227610   * * 5.25 1@1 6.07 1@1
TE    07:00:00:732    1020227610   * * 5.31 10@1 5.68 1@1
TE    07:02:00:210    1020227610   * * * * 5.67 1@1
```

In the Level1 Market Data Kinematics **after 2015-04-20**, Opening Auctions will be held for some securities on the T+ main trading mode instead of the Opening (Pre-Trade) period (Opening Auctions will also be indicated by the tag `MARKET_MICEX_SecurityTradingStatus`). Opening Auction technology is similar to the Closing Auction technology. The auction consists of three phases:

- Order entry
- Random Auction End – the duration is selected randomly for every security within 0-30 seconds.
- Opening Auction Price calculation and Trade Conclusion (after the random auction end):

```
"TE (TradeEvent) : MARKET_TIME INSTRUMENT LAST_PRICE TRADE_QTY BID_PRICE BID_QTY ASK_PRICE
ASK_QTY *CONTENT_MASK* *FLAGS*"
"VU (ValuesUpdate) : SERVER_TIME INSTRUMENT VALUES..."
"SI (TradeEvent) *SIGNAL* : SERVER_TIME INSTRUMENT SIGNAL LAST_PRICE"

VU    06:45:00:141    1020227610   MARKET_MICEX_SecurityTradingStatus=119 TradingStatus=21
[Pre-Open]
VU    06:45:10:648    1020227610   DailyHighBidPrice=5.48
TE    06:45:10:649    1020227610   * * 5.48 19@1 * *
VU    06:45:10:742    1020227610   LastAuctionPrice=5.48 LastAuctionImbalanceVolume=178700
LastAuctionImbalanceSide=S
TE    06:49:25:886    1020227610   * * 5.48 28@2 * *
VU    06:49:25:887    1020227610   LastAuctionImbalanceVolume=177800
TE    06:49:28:988    1020227610   * * * * 5.48 1853@4
VU    06:49:28:988    1020227610   LastAuctionImbalanceVolume=178700
TE    06:53:21:115    1020227610   * * 5.48 63@3 * *
VU    06:53:21:145    1020227610   LastAuctionImbalanceVolume=175200
TE    06:53:24:216    1020227610   * * * * 5.48 1888@5
VU    06:53:24:219    1020227610   LastAuctionImbalanceVolume=178700%
VU    06:55:01:071    1020227610   MARKET_MICEX_SecurityTradingStatus=18 TradingStatus=18
SI    06:55:01:071    1020227610   OPEN 5.48
TE    06:55:01:071    1020227610   5.48 * * * * * OHL
VU    06:55:01:071    1020227610   DailyTotalVolumeTraded=63 SessionVWAPPrice=5.48
TE    06:55:01:073    1020227610   * * ! O 5.48 1825@5
TE    06:55:01:000    1020227610   5.48 19 * * * * TradeID=245678179
```

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.