

S&P Capital IQ Real-Time Solutions

FeedOS™ Developer's Notice

MICEX FAST – Feed Update

Reference n°: 20150414 – 24620 – 26274 (UPDATE 01 TO 20150330 – 24620 – 25970)

Effective as of: 01 June 2015*

Action required from users: MANDATORY ACTION



* For the actual day when the changes to your custom feed handler take effect, please contact your QuantFEED® project manager.

S&P Capital IQ Real-Time Solutions
FeedOS™ Developer's Notice: MICEX FAST – Feed Update
Reference 20150414 – 24620 – 26274
April 14, 2015

France Offices

52 Rue de la Victoire
75009 Paris
France
Tel: +33 (0) 1 73 02 32 11

US Offices

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

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

UK Office

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

Singapore Office

12 Marina Boulevard
#23-01 Marina Bay
Financial Centre Tower 3
Singapore 018982
Tel: +65 6530 6546

www.capitaliq.com

Copyright © 2015 by Standard & Poor's Financial Services LLC, a part of McGraw Hill Financial.

All rights reserved. S&P CAPITAL IQ is a trademark of Standard & Poor's Financial Services LLC. STANDARD & POOR'S, S&P, GLOBAL CREDIT PORTAL and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P's opinions and analyses do not address the suitability of any security. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

UPDATE OF THE MICEX FAST MARKET DATA STREAM

To reflect the changes caused by the new version 4.0 of the FAST UDP Multicast Marketdata service for the MOSCOW EXCHANGE Equity and FX markets, S&P Capital IQ Real-Time Solutions has decided to enhance the content of FeedOS.

This developer's notice contains late-breaking information about the implementation of this modification in your applications, which may not be included otherwise in the published documentation. The topics this notice covers include:

- [1. Update Summary](#)
- [2. FeedOS Technical Implementation](#)
- [3. Finding the Latest Information.](#)

1. Update Summary

Table 1 Current update summary

Notice Reference	20150414 – 24620 – 26274 ⁱ (UPDATE 01 TO 20150330 – 24620 – 25970)
Exchanges	MICEX FAST
Concerned MICs	MISX
Internal Source ID	248
Effective Date	2015-06-01*
Impact	<ul style="list-style-type: none">• Update of the Quotation Tags• Changes to the Level 1 Market Data Kinematics
Action required	MANDATORY ACTION - see sections: <ul style="list-style-type: none">• 2.2. Update of the Level1 Market Data Kinematics – Opening Auctions.

i. The red bars in the left margin highlight content that has been added or changed since the previous release of this document.

2. FeedOS Technical Implementation

Effective Monday, **June 01^{*} 2015**, S&P Capital IQ Real-Time Solutions enhances the referential, quotation and quotation context data, and updates the Level1Market Data Kinematics to accommodate the information disseminated on the MICEX FAST market data stream, as described below:

- [2.1. Changes to the Quotation Data](#)
- [2.2. Update of the Level1 Market Data Kinematics – Opening Auctions.](#)

2.1. Changes to the Quotation Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation tags below to accommodate the information disseminated on the MICEX FAST market data stream:

Table 2 Quotation tags added on the MICEX FAST market data stream

Tag Name	Numeric ID	Type
MARKET_MICEX_SecurityTradingStatus	15070	UInt16

2.1.1. 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 3 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	<i>[Exchange specific value]</i>	An exchange specific value , indicating the trading status of a MICEX Security.
Possible Values	2	Break in trading
	17	Normal trading
	18	Not available for trading / Trading closed
	102	Closing auction
	103	Closing period

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, the date and Source IDs may differ. For the actual day when the changes to your custom feed handler will take effect, please contact your FeedOS™ project manager.

Table 3 MARKET_MICEX_SecurityTradingStatus – technical implementation in FeedOS (Continued)

Component	Value	Description
Possible Values	106	Dark pool auction
	107	Discrete auction
	118	Opening period
	119	Opening auction period
	120	Trading at Closing auction price

Quotation Data Sample

Below is an example showing the current implementation of the newly added (in **green**) quotation tags:

```
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}
```

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

In the Level1 Market Data Kinematics **before 2015-06-01**, 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 * * * * * 0
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 2015-06-01**, 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 * * ! 0 5.48 1825@5
TE 06:55:01:000 1020227610 5.48 19 * * * * TradeID=245678179
```

3. 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>.