S&P Capital IQ Real-Time Solutions

FeedOS™ Developer's Notice

OPRA - Extended Trading Hours Addition

Reference n°: 20150225 – 23694 – 25531 (UPDATE 01 TO 20150223 – 24895 – 25472)

Effective as of: Starting 18 May 2015*

Action required from users: Attention Required



* 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: OPRA – Extended Trading Hours Addition Reference 20150225 – 23694 – 25531 May 12, 2015

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To reflect the changes caused by the dissemination of new values on the OPRA market data stream, S&P Capital IQ Real-Time Solutions has decided to enhance the content of FeedOS™. The progressive product migration follows the plan below:

Table 1 Progressive migration milestones

Market	Channels	Effective Date
OPRA 3 – Includes all Extended Trading Session Instruments	33-48	2015-05-18
OPRA 1	01-16	2015-05-25
OPRA 2	17-32	2015-05-25

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 2 Current update summary

Notice Reference	20150225 – 23694 – 25531 ⁱ (UPDATE 01 TO 20150223 – 24895 – 25472)	
Exchanges	OPRA	
Concerned MICs	opra	
Internal Source ID	41, 42, 43	
Effective Date	Staring 2015-05-18*	
Impact	Addition of Extended Trading Hours	
Action required	Attention Required	

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

Staring Monday, May 18*, 2015, S&P Capital IQ Real-Time Solutions introduces Early Trading Hours on the OPRA market data stream to reflect the addition of Extended Trading Hours on the Chicago Board Options Exchange (CBOE) for the following products: SPX, SPXW and VIX.

Moreover, the behavior of these products during extended and regular hours represents a single trading session for a single business day (not a multisession behavior), as described in the table below:

Table 3 Extended Trading Hours on CBOE for OPRA (express in UTC)

Business Day	Trading Hours	Time (UTC)	Signal	Trading Status Value
Current/Single	Early Trading Hours	07:00	open	17 – Ready to Trade
		13:15	close	18 - Not Available for Trading
	Regular Trading Hours	13:30	Open	17 – Ready to Trade
		23:00	Close	18 – Not Available for Trading

Caution During the Early Trading Hours, the exchange will send Quotes and Trades. However, the daily statistics, such as Open/High/Low/Close/Cumulated Trading Volumes, will not be available.

The example below shows the instrument kinematics during the entire trading day:

```
"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"
     2015-03-30
                   07:00:00:018.326
                                       504/1531 open *
SI
                                       504/1531 * * * * * * o
TF
    2015-03-30
                   07:00:00:018.326
VU
     2015-03-30
                   07:00:00:018.326
                                       504/1531 TradingSessionId=-1 TradingStatus=17
     2015-03-30
                   13:15:00:018.796
SI
                                       504/1531 close *
     2015-03-30
                   13:15:00:018.796
                                       504/1531 * * * * * * c
VU
     2015-03-30
                   13:15:00:018.796
                                       504/1531 TradingStatus=18
SI
     2015-03-30
                   13:30:00:317.772
                                       504/1531 OPEN *
                                       504/1531 * * * * * * o
TF
    2015-03-30
                   13:30:00:317.772
VU
    2015-03-30
                   13:30:00:317.772
                                       504/1531 TradingStatus=17
     2015-03-30
                   23:00:00:405.171
                                       504/1531 CLOSE *
SI
     2015-03-30
                   23:00:00:405.171
                                       504/1531 * * * * * * C
VU
     2015-03-30
                   23:00:00:405.171
                                       504/1531 TradingStatus=18
```

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: http://support.quanthouse.com.

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