

**S&P Capital IQ Real-Time Solutions**

## **FeedOS™ Feed Description**

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### **DIRECT EDGE**

Reference n°: 20150519 – 21251 – 26662



S&P Capital IQ Real-Time Solutions  
FeedOS™ Feed Description: DIRECT EDGE  
Reference 20150519 – 21251 – 26662  
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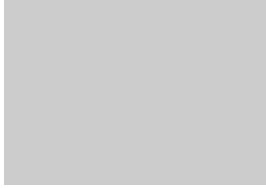
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# FEEDOS™ DIRECT EDGE FEED DESCRIPTION

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 DIRECT EDGE market data stream, their possible values and current FeedOS technical implementation.

The topics this feed description covers include:

- [1. Referential Data](#)
- [2. Quotation Data](#)
- [3. Official Closing Price](#)
- [4. Special Behavior](#)
- [5. Finding the Latest Information.](#)

## 1. Referential Data

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

- [1.1. Available Markets and Branches](#)
- [1.2. Types of Instruments](#)
- [1.3. Specific Referential Tags.](#)

### 1.1. Available Markets and Branches

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

- [1.1.1. Markets](#)
- [1.1.2. Branches.](#)

### 1.1.1. Markets

The DIRECT EDGE market data stream broadcasts informations about the following markets:

**Table 1 Markets available on the DIRECT EDGE market data stream**

FeedOS Market ID	Market
EDGA	Direct Edge A
EDGX	Direct Edge X

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

```
MARKETS
market # 149    CC=US/UNITED STATES OF AMERICA/NEW YORK,DESCR=DIRECT EDGE A,
WEB=www.directedge.com
  MIC = EDGA
  TimeZone = America/New_York
  Country = US
  NbMaxInstruments = 2000000
market # 157    CC=US/UNITED STATES OF AMERICA/NEW YORK,DESCR=DIRECT EDGE X,
WEB=www.directedge.com
  MIC = EDGX
  TimeZone = America/New_York
  Country = US
  NbMaxInstruments = 2000000
```

### 1.1.2. Branches

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

```
BRANCHES
{ EDGA CS    ESXXXX } qty: 7950
{ EDGA NONE  EUXXXX } qty: 1
{ EDGA PS    EPXXXX } qty: 498
{ EDGA WAR   RWXXXX } qty: 43
{ EDGX CS    ESXXXX } qty: 7950
{ EDGX NONE  EUXXXX } qty: 1
{ EDGX PS    EPXXXX } qty: 498
{ EDGX WAR   RWXXXX } qty: 43
```

## 1.2. Types of Instruments

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

- [1.2.1. Equities](#)
- [1.2.2. Warrant.](#)

### 1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 149/12959 = 312488607
  PriceCurrency      string{USD}
  Symbol             string{CNLMW}
  SecurityType       string{CS}
  FOSMarketId        EDGA
  CFICode            string{ESXXXX}
  RoundLot           float64{100}
  MinTradeVol        float64{1}
  InternalCreationDate Timestamp{2015-01-07 12:51:27:752}
  InternalModificationDate Timestamp{2015-01-07 12:51:27:752}
  InternalSourceId    uint16{36}
  InternalAggregationId uint16{36}
  LocalCodeStr        string{CNLMW}
  ForeignFOSMarketId  XNAS
  ForeignMarketId     string{XNAS}
```

### 1.2.2. Warrant

The sample below illustrates the details of a warrant:

```
instr # 157/12920 = 329265784
  PriceCurrency      string{USD}
  Symbol             string{ASB+}
  SecurityType       string{WAR}
  FOSMarketId        EDGX
  CFICode            string{RWXXXX}
  RoundLot           float64{100}
  MinTradeVol        float64{1}
  SecurityGroup       string{3}
  InternalCreationDate Timestamp{2015-01-10 09:36:58:226}
  InternalModificationDate Timestamp{2015-01-10 09:36:58:226}
  InternalSourceId    uint16{36}
  InternalAggregationId uint16{36}
  InternalEntitlementId int32{1117}
  LocalCodeStr        string{ASB+}
  PriceIncrement_dynamic_TableId uint32{2359396}
  UMTF               string{ASB+}
  OperatingMIC        string{EDGE}
  SegmentMIC          string{EDGX}
```

## 1.3. Specific Referential Tags

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

- [1.3.1. OperatingMIC](#)
- [1.3.2. SegmentMIC](#)

### 1.3.1. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the DIRECT EDGE 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	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , specifying the parent MIC.
Possible Values	EDGE	Direct Edge

### 1.3.2. SegmentMIC

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

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

**Table 3      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	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , specifying the child MIC.
Possible Values	EDGA	EDGA Exchange
	EDGX	EDGX Exchange

## 2. Quotation Data

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

```
InstrumentStatusL1
-- 157/12920
    BID: 2.65      0      *NO ORDER*
    ASK: 3.1       0      *NO ORDER*
    LastPrice      float64{2.72}
    LastTradeQty   float64{700}
    DailyTotalVolumeTraded float64{0}
    DailyTotalAssetTraded float64{0}
    LastTradePrice float64{2.72}
    LastTradeTimestamp Timestamp{2015-04-15 18:44:13:895}
    InternalDailyOpenTimestamp Timestamp{2015-05-18 12:00:00:653}
    InternalDailyCloseTimestamp Timestamp{2015-05-18 20:01:00:429}
    InternalDailyHighTimestamp Timestamp{2015-04-15 17:51:36:098}
    InternalDailyLowTimestamp Timestamp{2015-04-15 17:51:36:098}
    InternalPriceActivityTimestamp Timestamp{2015-05-18 23:30:00:716}
    TradingStatus  18=NotAvailableForTrading
    LastOffBookTradePrice float64{2.4}
    LastOffBookTradeQty float64{100}
    LastOffBookTradeTimestamp Timestamp{2015-02-09 15:03:36:196}
    RegSH0Action    1=NoPriceTest
    PreviousDailyTotalVolumeTraded float64{2100}
    PreviousDailyTotalAssetTraded float64{5712}
    PreviousDailyClosingPrice float64{2.72}
    PreviousBusinessDay Timestamp{2015-04-15}
    CurrentBusinessDay Timestamp{2015-05-18}
    DailyTotalOffBookVolumeTraded float64{0}
    DailyTotalOffBookAssetTraded float64{0}
    InternalDailyClosingPriceType char{d}
    PriceActivityMarketTimestamp Timestamp{2015-05-18 20:00:00}
```

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 **Trading Status** conveyed on the DIRECT EDGE 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 4      TradingStatus – technical implementation in FeedOS**

Component	Value	Description
Tag Name	TradingStatus	FeedOS tag name.
Numeric ID	9100	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Enum	Enum data type.
Format	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , detailing the characteristics of the trading status.
Possible Values	17	Ready to Trade
	18	Not Available for Trading

## 2.3. Specific Quotation Tags

The following sections describe specific quotation tags available on the DIRECT EDGE 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 DIRECT EDGE market data stream:

- [2.3.1.1. AggressorSide.](#)

#### 2.3.1.1. AggressorSide

Each time a trade occurs, the values of the quotation context tag **AggressorSide** conveyed on the DIRECT EDGE market data stream are disseminated via FeedOS data stream in *Context*, to indicate whether the aggressor is a buyer or a seller:

- 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 `AggressorSide` is described in the following table:

**Table 5      AggressorSide – technical implementation in QuantFEED®**

Component	Value	Description
Tag Name	AggressorSide	FeedOS tag name.
Numeric ID	9356	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.

**Table 5 AggressorSide – technical implementation in QuantFEED® (Continued)**

Component	Value	Description
Format	<i>[Exchange Specific Value]</i>	An <b>exchange specific value</b> , indicating whether the aggressor is a buyer or a seller.
Possible Values	Space	No aggressor
	1	Buy Side
	2	Seller Side

## 2.3.2. Other Values

The following subsections describe the other values on the DIRECT EDGE market data stream:

- [2.3.2.1. RegSHOAction](#)
- [2.3.2.2. InternalDailyClosingPriceType](#).

### 2.3.2.1. RegSHOAction

Each time a short sale price restriction occurs, the values of the quotation tag **RegSHOAction** conveyed on the DIRECT EDGE 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 **RegSHOAction** is described in the table below:

**Table 6 RegSHOAction – technical implementation in FeedOS**

Component	Value	Description
Tag Name	RegSHOAction	FeedOS tag name.
Numeric ID	9113	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	Enum	Enum data type.
Format	<i>[Exchange Specific Value]</i>	An <b>exchange specific value</b> , detailing the short sale restriction status.
Possible Values	1	Short sale restriction deactivated – No Price Test.
	2	Short sale restriction activated – Price Test in effect.
	3	Short sale restriction continued – Price Test remains in effect.

### 2.3.2.2. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the DIRECT EDGE 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	<i>[Internal Specific Value]</i>	An <b>internal specific value</b> , detailing the type of daily closing price, as described below.
Possible Values	0	<b>Undefined</b>
	a	<b>Official Close</b> – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day.
	b	<b>Official Indicative</b> – Exchange has provided an indicative price and marked it as indicative, however no trading activity is observed.
	c	<b>Official Carry Over</b> – Explicit Closing price value from a previous trading day carried forward by the exchange to the given trading day.
	<b>d</b>	<b>Last Price</b> – Final price disseminated by the exchange for the main trading session or dissemination period of a given trading day (for indices).
	e	<b>Last Eligible Price</b> – 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	<b>Manual</b> – 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. Official Closing Price

The closing price is the last trade price provided by the market. There is no settlement price.

\* The MBL and MBO 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. Special Behavior

The following sections describe the special behavior of the DIRECT EDGE market data stream in terms of:

- [4.1. Level1 Market Data Kinematics – OPEN & CLOSE.](#)

### 4.1. Level1 Market Data Kinematics – OPEN & CLOSE

In the Level1 Market Data Kinematics **before 2015-01-12**, the exchange sent the OPEN signal for all the instruments, including those on halt.

Moreover, the exchange sent the CLOSE signal for all instruments at 20:00 New York Time, as shown in the example below:

TE	2015-02-18	13:00:00:509	329263255	*	*	!	0	!	0
SI	2015-02-18	13:00:00:509	329263255	<b>OPEN</b>		*			
TE	2015-02-18	13:00:00:509	329263255	*	*	*	*	*	0
VU	2015-02-18	13:00:00:509	329263255	TradingStatus=17					
TE	2015-02-18	13:00:01:086	329263255	*	*	*	*	72.36	100@1
TE	2015-02-18	13:00:01:086	329263255	*	*	52.5	300@1	*	*
TE	2015-02-18	13:00:01:086	329263255	*	*	55.5	100@1	*	*
TE	2015-02-19	01:00:00:082	329263255	*	*	62	300@1	*	*
TE	2015-02-19	01:00:00:082	329263255	*	*	!	0	*	*
SI	2015-02-19	01:00:00:555	329263255	<b>CLOSE</b>		65.54			
TE	2015-02-19	01:00:00:555	329263255	65.54	*	*	*	*	C
VU	2015-02-19	01:00:00:555	329263255	TradingStatus=18					

In the Level1 Market Data Kinematics **after 2015-01-12**, the exchange no longer sends the OPEN signal for halted instruments, as shown below:

VU	2015-02-18	09:22:26:844	330010630	RegSHOAction=2		TradingStatus=2			
VU	2015-02-18	09:22:31:153	330010630	RegSHOAction=1					
SI	2015-02-18	09:22:32:367	330010630	<b>OPEN</b>		*			
TE	2015-02-18	09:22:32:367	330010630	*	*	*	*	*	0
VU	2015-02-18	09:22:32:367	330010630	RegSHOAction=1		TradingStatus=17			
VU	2015-02-18	09:22:37:821	330010630	TradingStatus=2					
VU	2015-02-18	09:23:17:246	330010630	TradingStatus=17					
SI	2015-02-18	10:22:03:385	330010630	<b>CLOSE</b>		*	Pourquoi ce timestamp ?		
TE	2015-02-18	10:22:03:385	330010630	*	*	*	*	*	C
VU	2015-02-18	10:22:03:385	330010630	TradingStatus=18					
VU	2015-02-18	13:01:00:463	330010630	TradingStatus=2					
TE	2015-02-19	00:30:00:729	330010630	*	*	!	0	!	0
TE	2015-02-20	00:30:00:902	330010630	*	*	!	0	!	0
TE	2015-02-20	00:30:00:890	330010630	*	*	!	0	!	0

Moreover, the exchange will send the CLOSE signal for all instruments at 16:01 New York Time, 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..."

TE  2015-02-18 00:30:00:184.234  330011060  *  *  !  0  !  0
VU  2015-02-18 11:00:00:008.543  330011060  RegSHOAction=1
SI  2015-02-18 13:00:00:009.544  330011060  OPEN  *
TE  2015-02-18 13:00:00:009.623  330011060  *  *  *  *  *  *  0
VU  2015-02-18 13:00:00:009.625  330011060  RegSHOAction=1  TradingStatus=17
VU  2015-02-18 15:50:27:620.657  330011060  TradingStatus=2
VU  2015-02-18 15:55:27:620.985  330011060  TradingStatus=17
TE  2015-02-18 15:58:43:709.325  330011060  *  *  10.54  500@1  *  *
TE  2015-02-18 15:59:24:323.458  330011060  *  *  !  0  *  *
SI  2015-02-18 21:01:00:663.034  330011060  CLOSE  *
TE  2015-02-18 21:01:00:663.132  330011060  *  *  *  *  *  *  C
TE  2015-02-19 00:30:00:744.125  330011060  *  *  !  0  !  0
VU  2015-02-19 01:00:00:757.584  330011060  TradingStatus=18
```

## 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](mailto:rts-support@spcapitaliq.com)
- Web: <http://support.quanthouse.com>.