

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

## **FeedOS™ Feed Description**

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**CHIX EUROPE**

Reference n°: 20150520 – 23648 – 26694



S&P Capital IQ Real-Time Solutions  
FeedOS™ Feed Description: CHIX EUROPE  
Reference 20150520 – 23648 – 26694  
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# FEEDOS™ CHIX EUROPE 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 CHIX EUROPE 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. Multi-Session Kinematics](#)
- [5. Special Behavior](#)
- [6. Finding the Latest Information.](#)

## 1. Referential Data

The following sections describe the characteristics of the referential data on the CHIX EUROPE 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 CHIX EUROPE market data stream.

#### 1.1.1. Markets

The CHIX EUROPE market data stream broadcasts informations about the following markets:

**Table 1** Markets available on the CHIX EUROPE market data stream

FeedOS Market ID	Market
CHIX	Chi-X Europe

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

```
MARKETS
market # 366      CC=GB/UNITED KINGDOM/LONDON,DESCR=INSTINET CHI-X LTD., WEB=www.instinet.com
MIC = CHIX
TimeZone = Europe/London
Country = GB
NbMaxInstruments = 2000000
```

### 1.1.2. Branches

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

```
BRANCHES
{ CHIX CS  ESXXXA } qty: 7
{ CHIX CS  ESXXXX } qty: 3330
{ CHIX EUCD ESXXXA } qty: 94
{ CHIX MF  EUXXXE } qty: 1224
{ CHIX MF  EUXXXX } qty: 102
{ CHIX NONE EXXXXX } qty: 62
```

## 1.2. Types of Instruments

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

## 1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 366/750016 = 768307648
  PriceCurrency      string{GBX}
  Symbol             string{AAL}
  Description         string{Anglo American PLC}
  MaxFloor           float64{40306350}
  SecurityType       string{CS}
  FOSMarketId        CHIX
  CFICode            string{ESXXX}
  SecuritySubType    string{EQTY}
  SecurityGroup      string{1}
  InternalCreationDate Timestamp{2013-03-02 12:56:20:077}
  InternalModificationDate Timestamp{2015-05-20 05:00:08:795}
  InternalSourceId   uint16{34}
  InternalEntitlementId int32{1007}
  LocalCodeStr       string{AAL}
  ForeignFOSMarketId XLON
  ForeignMarketId     string{XLON}
  ISIN                string{GB00B1XZS820}
  ReutersInstrumentCode string{AAL.CH}
  BloombergTicker     string{AAL IX Equity}
  PriceIncrement_dynamic_TableId uint32{2228329}
  PrimaryReutersInstrumentCode string{AAL.L}
  PrimaryBloombergTicker string{AAL LN Equity}
  UMTF                string{AAL}
  OperatingMIC         string{BCXE}
  SegmentMIC           string{CHIX}
  EMCF_Eligible        bool{True}
  XCLEAR_Eligible      bool{True}
  LCH_Clearnet_Eligible bool{True}
  CCP_Eligible         bool{False}
```

## 1.3. Specific Referential Tags

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

- [1.3.1. SecuritySubType](#)
- [1.3.2. ReutersInstrumentCode](#)
- [1.3.3. EMCF\\_Eligible](#)
- [1.3.4. XCLEAR\\_Eligible](#)
- [1.3.5. LCH\\_Clearnet\\_Eligible](#)
- [1.3.6. CCP\\_Eligible](#)

### 1.3.1. SecuritySubType

The values of the referential tag **SecuritySubType** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to specify additional details about the securities associated with the CFI Codes of the market.

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

**Table 2 SecuritySubType – technical implementation in FeedOS**

Component	Value	Description
<b>Tag Name</b>	SecuritySubType	FeedOS tag name.
<b>Numeric ID</b>	762	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
<b>Type</b>	String	String data type.
<b>Format</b>	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing the securities associated with the market's CFI Codes.
<b>Possible Values</b>	EQTY	Equity Share
	DR	Depository Receipt
	ETF	Exchange Traded Fund

Based on the values conveyed by the tag **SecuritySubType**, S&P Capital IQ Real-Time Solutions sets the values associated with the tags **CFIcode** and **SecurityType**, as described in the table below:

**Table 3 Security Subtype – CFI Code – Security Type affinity**

Security Subtype	CFI Code	Security Type
EQTY	ESXXXX	CS
DR	ESXXXXA	CS
ETF	EUXXXX	MF

### 1.3.2. ReutersInstrumentCode

The values of the referential tag **ReutersInstrumentCode** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to detail the code used by Thomson Reuters to identify financial instruments.

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

**Table 4 ReutersInstrumentCode – technical implementation in FeedOS**

Component	Value	Description
<b>Tag Name</b>	ReutersInstrumentCode	FeedOS tag name.
<b>Numeric ID</b>	9508	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
<b>Type</b>	String	String data type.
<b>Format / Possible Values</b>	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing the code used by Thomson Reuters to identify financial instruments.

### 1.3.3. EMCF\_Eligible

The values of the referential tag **EMCF\_Eligible** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to specify whether an instrument is enabled for clearing with EMCF.

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

**Table 5** **EMCF\_Eligible – technical implementation in FeedOS**

Component	Value	Description
Tag Name	EMCF_Eligible	FeedOS tag name.
Numeric ID	9547	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	Bool	Bool data type.
Format	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing whether an instrument is enabled for clearing with EMCF.
Possible Values	True	EMCF enabled.
	False	Default value, not sent.

### 1.3.4. XCLEAR\_Eligible

The values of the referential tag `XCLEAR_Eligible` conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to specify whether an instrument is enabled for clearing with SIX X-CLEAR.

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

**Table 6** **XCLEAR\_Eligible – technical implementation in FeedOS**

Component	Value	Description
Tag Name	XCLEAR_Eligible	FeedOS tag name.
Numeric ID	9548	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	Bool	Bool data type.
Format	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing whether an instrument is enabled for clearing with SIX X-CLEAR.
Possible Values	True	SIX X-CLEAR enabled.
	False	Default value, not sent.

### 1.3.5. LCH\_Clearnet\_Eligible

The values of the referential tag `LCH_Clearnet_Eligible` conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to specify whether an instrument is enabled for clearing with LCH Clearnet.



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

**Table 7 LCH\_Clearnet\_Eligible – technical implementation in FeedOS**

Component	Value	Description
Tag Name	<code>LCH_Clearnet_Eligible</code>	FeedOS tag name.
Numeric ID	9549	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	Bool	Bool data type.
Format	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing whether an instrument is enabled for clearing with LCH Clearnet.
Possible Values	True	LCH Clearnet enabled.
	False	Default value, not sent.

### 1.3.6. CCP\_Eligible

The values of the referential tag `CCP_Eligible` conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Referential* to specify whether an instrument is enabled for clearing with EuroCCP.

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

**Table 8 CCP\_Eligible – technical implementation in FeedOS**

Component	Value	Description
Tag Name	<code>CCP_Eligible</code>	FeedOS tag name.
Numeric ID	9552	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	Bool	Bool data type.
Format	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , detailing whether an instrument is enabled for clearing with EuroCCP.
Possible Values	True	CCP eligibility and post trade anonymity.
	False	Default value, not sent.

## 2. Quotation Data

The following sections describe the characteristics of the quotation data on the CHIX EUROPE 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 example below shows the possible values of an instrument on the CHIX EUROPE market data stream:

```
InstrumentStatusL1
-- 366/750016
    BID: 1059.5      1994    @6
    ASK: 1060.5      2621    @5
    LastPrice                float64{1060}
    LastTradeQty              float64{912}
    DailyHighPrice            float64{1068}
    DailyLowPrice              float64{1036.5}
    DailyTotalVolumeTraded     float64{325880}
    DailyTotalAssetTraded      float64{343581594}
    LastTradePrice             float64{1060}
    LastTradeTimestamp         Timestamp{2015-05-20 09:16:58:699}
    InternalDailyOpenTimestamp Timestamp{2015-05-20 07:00:00:001}
    InternalDailyCloseTimestamp Timestamp{2015-05-19 15:30:00:002}
    InternalDailyHighTimestamp Timestamp{2015-05-20 07:39:25:475}
    InternalDailyLowTimestamp  Timestamp{2015-05-20 07:05:42:602}
    InternalPriceActivityTimestamp Timestamp{2015-05-20 09:17:01:507}
    TradingStatus              17=ReadyToTrade
    LastOffBookTradePrice       float64{1060}
    LastOffBookTradeQty         float64{281}
    LastOffBookTradeTimestamp   Timestamp{2015-05-20 08:58:31:008}
    DailyOpeningPrice           float64{1058}
    PreviousDailyTotalVolumeTraded float64{1231097}
    PreviousDailyTotalAssetTraded float64{1307731614.5}
    PreviousDailyClosingPrice    float64{1062}
    PreviousBusinessDay          Timestamp{2015-05-19}
    CurrentBusinessDay           Timestamp{2015-05-20}
    DailyTotalOffBookVolumeTraded float64{26402}
    DailyTotalOffBookAssetTraded float64{27700234.25}
    PreviousInternalDailyClosingPriceType char{a}
    PriceActivityMarketTimestamp Timestamp{2015-05-20 09:17:01:507}
    InternalDailyBusinessDayTimestamp Timestamp{2015-05-20 07:00:00:001}
    TradingReferencePrice        float64{1062}
```

For more details about the fields and tags available in quotation data type, and their possible values, see *FeedOS Quotation Tags Guide*.

### 2.1.1. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **TradingStatus** conveyed on the CHIX EUROPE 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 (newly added values are in **green**):

**Table 9 Trading Status of the CHIX EUROPE 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. This is the numeric equivalent of the tag name.	
Type	Enum	Enumeration data type.	
Format	<i>[Exchange Specific Value]</i>	An <b>exchange specific value</b> , as described below, concerning the characteristics of the trading status.	
Possible Values	2	Trading Halt	Whenever an instrument is halted.
	5	Price Indication	07:50-08:00 London Local Time
	15	New Price Indication	Whenever the Price Indication is extended, for price matching. See also the section 4. <a href="#">Multi-Session Kinematics</a> .
	16	Trade Dissemination Time	16:30-16:50 London Local Time
	17	Ready to Trade	08:00-16:30 London Local Time
	18	Not Available for Trading	16:50-07:50 London Local Time

## 2.2. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **TradingStatus** conveyed on the CHIX EUROPE 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 10 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	<i>[Exchange Specific Value]</i>	An <b>exchange specific value</b> , detailing the characteristics of the trading status.
Possible Values	2	Trading Halt
	5	Price Indication
	16	Trade Dissemination Time – 16:30 London Local Time
	17	Ready to Trade – 08:00 London Local Time
	18	Not Available for Trading – 16:50 London Local Time

## 2.3. Specific Quotation Tags

The following section describes specific quotation tags available on the CHIX EUROPE 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 CHIX EUROPE market data stream:

- [2.3.1.1. TradeID](#)
- [2.3.1.2. AggressorSide](#)
- [2.3.1.3. OriginFOSMarketIdOf\\_LastPrice](#)
- [2.3.1.4. MMTFlagsV2](#)
- [2.3.1.5. MARKET\\_BATS\\_AuctionType](#)
- [2.3.1.6. MARKET\\_BATS\\_TradeReportFlags.](#)

#### 2.3.1.1. TradeID

Each time a trade occurs, the values of the quotation tag **TradeID** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Context* to detail the unique ID assigned to the trade entity once it is received or matched by the exchange or central counterparty:

- 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 values currently available for the tag **TradeID** is described in the table below:

**Table 11 TradeID – technical implementation in FeedOS**

Component	Value	Description
Tag Name	TradeID	FeedOS tag name.
Numeric ID	1003	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 / Possible Values	<i>[Exchange Specific value]</i> <i>Expressed in base 10 (previously in base 36).</i>	An <b>exchange specific value</b> , detailing the unique ID assigned to the trade entity once it is received or matched by the exchange or central counterparty.

#### 2.3.1.2. AggressorSide

Each time a trade occurs, the values of the quotation context tag **AggressorSide** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS's 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 12 AggressorSide – technical implementation in FeedOS**

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 data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
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

### 2.3.1.3. OriginFOSMarketIdOf\_LastPrice

The values of the quotation tag **OriginFOSMarketIdOf\_LastPrice** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Context* to identify the market from which the last price originates, if this market is recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions:

- 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.

QuantFEED® implementation of the tag `OriginFOSMarketIdOf_LastPrice` is described in the table below:

**Table 13 OriginFOSMarketIdOf\_LastPrice – technical implementation in FeedOS**

Component	Value	Description
Tag Name	OriginFOSMarketIdOf_LastPrice	FeedOS tag name.
Numeric ID	9350	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	UInt16	UInt16 data type.
Format / Possible Values	<i>[Exchange specific value]</i>	An <b>exchange specific value</b> , identifying the market from which the last price originates, if this market is recorded in the normalized inventory of S&P Capital IQ Real-Time Solutions.

### 2.3.1.4. MMTFlagsV2

The values of the quotation tag **MMTFlagsV2** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Context* to detail the Market Model Typology (version 2) applicable to the trade:

- 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 MMTFlagsV2 is described in the table below:

**Table 14 MMTFlagsV2 – technical implementation in FeedOS**

Component	Value	Description
Tag Name	MMTFlagsV2	FeedOS tag name.
Numeric ID	9901	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] 10-character long</i>	An <i>exchange specific value</i> , detailing the Market Model Typology (version 2) applicable to the trade.
Possible Values	<b>MMT Level 1 - MARKET MECHANISM – OFFSET 1</b>	
	1	Central Limit Order Book
	2	Quote Driven Market
	3	Dark Order Book
	4	Off Book
	<b>MMT Level 2 - TRADING MODE – OFFSET 2</b>	
	1	Undefined Auction
	2	Continuous Trading
	3	At Market Close Trading
	4	Out of Main Session Trading
	5	Trade Reporting (On Exchange)
	6	Trade Reporting (Off Exchange)
	7	Trade Reporting (Systematic Internaliser)
	O	Scheduled Opening Auction
	K	Scheduled Closing Auction
	I	Scheduled Intraday Auction
	U	Unscheduled Auction
	<b>MMT Level 3 - TRANSACTION TYPE</b>	
	<b>3.1. TRANSACTION CATEGORY – OFFSET 3</b>	
	P	Plain-Vanilla Trade
	D	Dark Trade
	T	Technical Trade
	G	Give-up/Give-In Trade
	F	Trade with Conditions
	<b>3.2. NEGOTIATED TRANSACTION INDICATOR – OFFSET 4</b>	
	N	Negotiated Trade
	-	No Negotiated Trade
	<b>3.3. CROSSING TRADE INDICATOR – OFFSET 5</b>	
	X	Crossing Trade
	-	No Crossing Trade
	<b>3.4. MODIFICATION INDICATOR – OFFSET 6</b>	
	C	Trade Cancellation
	A	Trade Amendment
	-	New Trade

Table 14 MMTFlagsV2 – technical implementation in FeedOS (Continued)

Component	Value	Description
<b>3.5. BENCHMARK INDICATOR – OFFSET 7</b>		
Possible Values	B	Benchmark Trade
	-	No Benchmark Trade
<b>3.6. EX/CUM DIVIDEND INDICATOR – OFFSET 8</b>		
	E	Ex/cum dividend Trade
	-	No Ex/Cum Dividend Trade
<b>MMT Level 4 - PUBLICATION MODE – OFFSET 9</b>		
	-	Immediate Publication
	1	Non Immediate Publication
<b>3.7. OFF BOOK AUTOMATED INDICATOR – OFFSET 10</b>		
	Q	Automated
	M	Manual
	-	Not Specified

### 2.3.1.5. MARKET\_BATS\_AuctionType

The values of the quotation tag **MARKET\_BATS\_AuctionType** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Context* to detail the auction type:

- 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\_BATS\_AuctionType** is described in the table below:

Table 15 MARKET\_BATS\_AuctionType – technical implementation in FeedOS

Component	Value	Description
Tag Name	MARKET_BATS_AuctionType	FeedOS tag name.
Numeric ID	14850	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> , detailing the auction type.
Possible Values	C	Closing Auction
	H	Halt Auction
	O	Opening Auction
	V	Volatility Auction

### 2.3.1.6. MARKET\_BATS\_TradeReportFlags

The values of the quotation tag **MARKET\_BATS\_TradeReportFlags** conveyed on the CHIX EUROPE market data stream are disseminated via FeedOS data stream in *Context* to identify the trade timing indicator and BATS Transaction Sub-Category:

- 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.

QuantFEED® implementation of the tag `MARKET_BATS_TradeReportFlags` is described in the table below:

**Table 16** `MARKET_BATS_TradeReportFlags` – technical implementation in FeedOS

Component	Value	Description	
Tag Name	<code>MARKET_BATS_TradeReportFlags</code>	FeedOS tag name.	
Numeric ID	16151	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	UInt16	UInt16 data type.	
Format	<i>[Exchange Specific value]</i>	<b>BATS Trade Timing Indicator</b>	An <i>exchange specific value</i> , indicating the trade timing indicator.
Possible Values	45	-	Otherwise
	49	1	Traded reported as "late"
	50	2	Traded reported as "out of the Main Session"

## 2.3.2. Other Values

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

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

### 2.3.2.1. LastAuctionImbalanceSide

The values of the quotation tag `LastAuctionImbalanceSide` conveyed on the CHIX EUROPE 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 17** `LastAuctionImbalanceSide` – technical implementation in QuantFEED®

Component	Value	Description	
Tag Name	<code>LastAuctionImbalanceSide</code>	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	<i>[Exchange Specific value]</i>	An <i>exchange specific value</i> , detailing the imbalance side of a closing auction.	
Possible Values	B	Buy	
	S	Sell	



### 2.3.2.2. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the CHIX EUROPE 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 (currently disseminated values are in green):

**Table 18 InternalDailyClosingPriceType – technical implementation in FeedOS**

Component	Value	Description
<b>Tag Name</b>	InternalDailyClosingPriceType	FeedOS tag name.
<b>Numeric ID</b>	9155	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
<b>Type</b>	Char	Char data type.
<b>Format</b>	<i>[Internal specific value]</i>	An <b>internal specific value</b> , detailing the type of daily closing price.
<b>Possible Values</b>	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.
	d	<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.

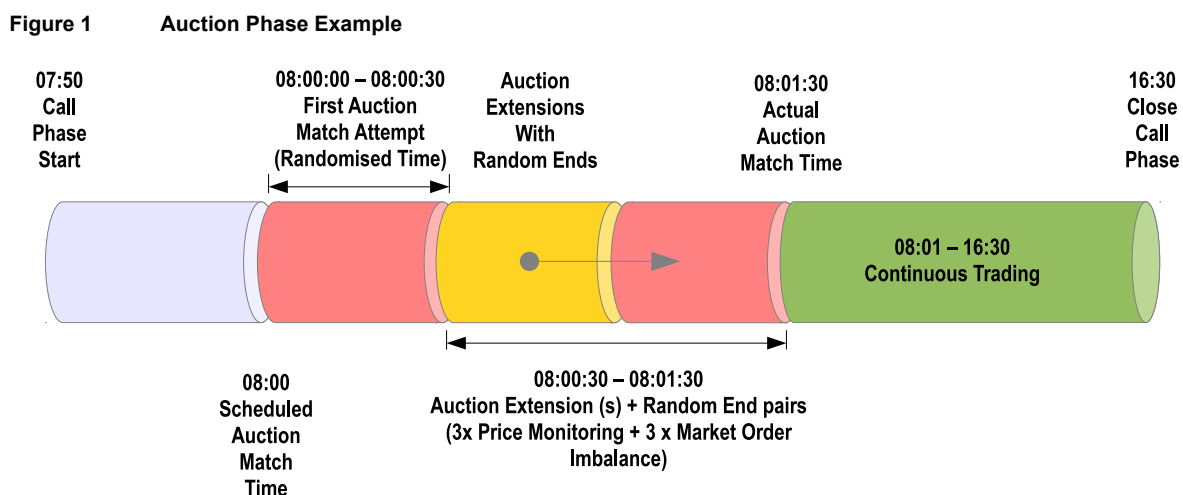
\* The MBL and MBO data may not be included by default in your Level1 data subscription, but sold separately. Depending on your contract, additional terms, conditions and fees may apply. For more details about the subscription options, please contact S&P Capital IQ Real-Time Solutions.

### 3. Official Closing Price

The closing price is the last trade price upon close.

### 4. Multi-Session Kinematics

Effective 2015-01-30, the exchange has introduced Opening and Closing Auctions for the BATS Regulated Market Listed ETF (REGM segment) securities. The auction phases can be extended until the prices are matched, as shown in the following diagram:



### 5. Special Behavior

The following sections describe the special behavior of the CHIX EUROPE market data stream in terms of:

- [5.1. Addition of the AT BEST Prices.](#)

## 5.1. Addition of the AT BEST Prices

Effective 2015-01-30, during an auction, the exchange notifies the AT BEST prices for the BATS Regulated Market Listed ETF (REGM segment) securities available on the CHIX EUROPE market data stream, 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 06:09:00:939.722 768309740 * * ! 0 ! 0
VU 06:09:01:956.007 768309740 InternalDailyClosingPriceType=a
VU 06:09:01:956.007 768309740 TradingStatus=18
VU 07:50:00:072.865 768309740 TradingStatus=5
VU 07:50:00:072.865 768309740 MARKET_BATS_AuctionType=0 LastAuctionImbalanceVolume=0
LastAuctionImbalanceSide=N LastAuctionVolume=? LastAuctionPrice=9.5
TE 07:51:21:842.038 768309740 * * AT_BEST 2000@1 * *
TE 07:51:24:743.920 768309740 * * AT_BEST 2020@2 * *
```

## 6. 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: <https://support.quanthouse.com>.