S&P Capital IQ's Real-Time Solutions

QuantFEED® Feed Description

CEF Core Feed

Reference n°: 20130903

S&P Capital IQ's Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Feed Description
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TABLE OF CONTENTS

QUANTFEED® CEF CORE FEED DESCRIPTION

As part of S&P Capital IQ's Real-Time Solutions's QuantFEED® documentation, this feed description provides you with details about the types of data broadcast on the CEF Core market data stream, their possible values and current QuantFEED® technical implementation.

The topics this feed description covers include:

1. Referential Data

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

1.1. Available Markets and Branches

This section details the list of Markets and Branches available on CEF Core market data stream.

1.1.1. Markets

The CEF Core market data stream broadcasts informations about the following markets:

Table 1 List of markets available on CEF Core market data stream

QuantFEED® Market ID	Market
XETR	Xetra Deutsche Börse
XFRA	Xetra 2 Deutsche Börse
XDUB	Irish Stock Exchange

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

```
MARKETS
market # 89     CC=DE/GERMANY/FRANKFURT AM MAIN,DESCR=DEUTSCHER KASSENVEREIN AG GRUPPE
DEUTSCHE BOERSE,WEB=www.deutsche-boerse.com
    MIC = XETR
    TimeZone =
    Country =
    NbMaxInstruments = 1000000
market # 92     CC=DE/GERMANY/FRANKFURT AM MAIN,DESCR=DEUTSCHE BOERSE AG,WEB=www.deutsche-
boerse.com
    MIC = XFRA
    TimeZone =
    Country =
    NbMaxInstruments = 1000000
market # 125    CC=IE/IRELAND/DUBLIN,DESCR=IRISH STOCK EXCHANGE,WEB=www.ise.ie
    MIC = XDUB
    TimeZone =
    Country =
    NbMaxInstruments = 1000000
```

1.1.2. Branches

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

```
BRANCHES
    { XETR NONE DBXXXX } qty: 849
    { XETR NONE EUXXXX } qty: 1015
    { XETR NONE EXXXXX } qty: 1673
    { XETR NONE MRIXXX } qty: 7563
    { XETR NONE RSXXXX } qty: 5
    { XETR NONE XXXXXX } qty: 1
    { XETR WAR  RWXXXX } qty: 425
    { XFRA NONE DBXXXX } qty: 27325
    { XFRA NONE EUXXXX } qty: 3935
    { XFRA NONE EXXXXX } qty: 12694
    { XFRA NONE MRIXXX } qty: 36
    { XFRA NONE RSXXXX } qty: 13
    { XFRA NONE XXXXXX } qty: 1
    { XFRA WAR  RWXXXX } qty: 538
    { XDUB NONE DBXXXX } qty: 787
    { XDUB NONE EUXXXX } qty: 16
    { XDUB NONE EXXXXX } qty: 360
    { XDUB NONE MRIXXX } qty: 16
    { XDUB NONE RSXXXX } qty: 2
    { XDUB WAR  RWXXXX } qty: 16
```

1.2. Types of Instruments

This section gives you examples of instruments' characteristics on CEF Core market data stream, according to their type:

1.2.1. Debts

The sample below illustrates the details of a debt:

```
instr # 89/400246 = 187046774
    PriceCurrency               string{EUR}
    Symbol                      string{PIHC}
    Description                 string{PORSCHE INTL FIN. 06/16}
    SecurityType                string{NONE}
    FOSMarketId                 XETR
    CFICode                     string{DBXXXX}
    InternalCreationDate        Timestamp{2011-06-27 05:15:05:839}
    InternalModificationDate    Timestamp{2012-07-30 16:30:00:590}
    InternalSourceId            uint16{51}
    LocalCodeStr                string{DE000A0GMHG2}
    ISIN                        string{DE000A0GMHG2}
    PriceIncrement_static       float64{0.005}
    WertpapierKennNummer        string{A0GMHG}
```

1.2.2. Equities

The sample below illustrates the details of an equity:

```
instr # 89/6178 = 186652706
    PriceCurrency               string{EUR}
    Symbol                      string{UIM4}
    Description                 string{UBS-ETF-MSCI EMU A}
    SecurityType                string{NONE}
    FOSMarketId                 XETR
    CFICode                     string{EUXXXX}
    InternalCreationDate        Timestamp{2011-06-27 05:15:05:844}
    InternalModificationDate    Timestamp{2012-07-30 16:30:08:336}
    InternalSourceId            uint16{51}
    LocalCodeStr                string{LU0147308422}
    ISIN                        string{LU0147308422}
    WertpapierKennNummer        string{633611}
    PriceIncrement_dynamic_TableId      uint32{3342437}
    MARKET_XETRA_SegmentCode    string{Exchange Traded Funds (XTFs)}
```

1.2.3. Rights

The sample below illustrates the details of a right:

```
instr # 89/401037 = 187047565
    PriceCurrency               string{EUR}
    Symbol                      string{VXIM}
    Description                 string{BARCLAYS EXCH.-TR.ZT. 19}
    SecurityType                string{WAR}
    FOSMarketId                 XETR
    CFICode                     string{RWXXXX}
    InternalCreationDate        Timestamp{2011-06-27 05:15:05:837}
    InternalModificationDate    Timestamp{2012-07-30 16:30:06:423}
    InternalSourceId            uint16{51}
    LocalCodeStr                string{DE000BC1C7R4}
    ISIN                        string{DE000BC1C7R4}
    WertpapierKennNummer        string{BC1C7R}
    PriceIncrement_dynamic_TableId      uint32{3342437}
```

1.2.4. Indices

The sample below illustrates the details of an index:

```
instr # 89/6935 = 186653463
    Symbol                      string{TDXP}
    Description                 string{TECDAX TR}
    SecurityType                string{NONE}
    FOSMarketId                 XETR
    CFICode                     string{MRIXXX}
    InternalCreationDate        Timestamp{2011-06-27 07:00:25:009}
    InternalModificationDate    Timestamp{2012-07-30 16:30:23:534}
    InternalSourceId            uint16{51}
    LocalCodeStr                string{DE0007203275}
    ISIN                        string{DE0007203275}
    WertpapierKennNummer        string{720327}
```

2. Quotation Data

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

- 2.1. Quotation Values
- 2.2. Trading Status
- 2.3. Specific Quotation Tags.

2.1. Quotation Values

The example below shows the possible values of an instrument on CEF Core market data stream:

```
InstrumentStatusL1
-- 89/9255
        BID: 9.255      2202
        ASK: 9.258      94
        LastPrice                       float64{9.255}
        LastTradeQty                    float64{1950}
        DailyHighPrice                  float64{9.28}
        DailyLowPrice                   float64{9.147}
        DailyTotalVolumeTraded          float64{1971516}
        DailyTotalAssetTraded           float64{18188209.597}
        LastTradePrice                  float64{9.255}
        LastTradeTimestamp              Timestamp{2012-07-31 09:17:24:210}
        InternalDailyOpenTimestamp      Timestamp{2012-07-31 07:00:21:129}
        InternalDailyCloseTimestamp     Timestamp{2012-07-30 16:30:15:594}
        InternalDailyHighTimestamp      Timestamp{2012-07-31 08:37:34:489}
        InternalDailyLowTimestamp       Timestamp{2012-07-31 07:09:49:751}
        InternalPriceActivityTimestamp  Timestamp{2012-07-31 09:17:38:292}
        TradingStatus                   17=ReadyToTrade
        DailyOpeningPrice               float64{9.196}
        PreviousDailyTotalVolumeTraded  float64{13928875}
        PreviousDailyTotalAssetTraded   float64{127915705.351}
        PreviousDailyClosingPrice       float64{9.198}
        PreviousBusinessDay             Timestamp{2012-07-30}
        CurrentBusinessDay              Timestamp{2012-07-31}
        LastAuctionPrice                float64{9.196}
        LastAuctionVolume               float64{113010}
        InternalLastAuctionTimestamp    Timestamp{2012-07-31 07:00:01:538}
        InternalCrossIndicator          bool{False}
        MARKET_CEF_LastTradeTradingPhase    char{C}
```

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

2.2. Trading Status

Each time a modification of the trading status occurs, the values of the quotation tag **Trading Status** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's 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.

QuantFEED® implementation of the tag **Trading Status** is described in the table below:

Table 2 CEF Trading Status – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	`9100`	QuantFEED® unique ID broadcast on S&P Capital IQ's 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	`2`	Trading Halt
	`5`	Price Indication
	`17`	Ready to Trade
	`18`	Not Available for Trading
	`21`	Pre-Open
	`23`	Fast Market

2.3. Specific Quotation Tags

The following sections describe additional quotation tags available on CEF Core market data stream:

2.3.1. Trade Conditions on Dublin

The following subsections describe the trade conditions on Dublin:

2.3.1.1. Dublin Index Type Indicator

Each time a change of the index tick occurs, the values of the specific quotation tag **Index Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Index Type Indicator** is described in the table below:

Table 3 Index Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_IndexTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15150`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the index type.
Possible Values	`I`	Indicative
	`R`	Representative
	`A`	Official
	`U`	Not Verified

2.3.1.2. Dublin Last Auction Quantity

Each time a change of the auction quantity occurs, the values of the quotation tag **Last Auction Quantity** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Last Auction Quantity** is described in the table below:

Table 4 Last Auction Quantity – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastAuctionQty`	QuantFEED® tag name.
Numeric ID	`15151`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, detailing the last auction quantity.

2.3.1.3. Dublin Trade Type Indicator

Each time a change of the trade occurs, the values of the specific quotation tag **Trade Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Trade Type Indicator** is described in the table below:

Table 5 Trade Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_TradeTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15400`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the trade type.
Possible Values	`M (77)`	Market Trade (Crossing)
	`X (88)`	Exchange Trade
	`P (80)`	Last Midpoint Order Price

2.3.2. Other Values on Dublin

The following subsections describe the other values available on Dublin:

- 2.3.2.1. Dublin Last Trade Trading Phase

2.3.2.1. Dublin Last Trade Trading Phase

The values of the specific quotation tag **Last Trade Trading Phase** conveyed on the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the specific trading phase of the last traded instrument:

- 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_CEF_LastTradeTradingPhase` is described in the table below:

Table 6 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastTradeTradingPhase`	QuantFEED® tag name.
Numeric ID	`14900`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the specific trading phase of the last traded instrument.

Table 6 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	O	Opening Auction / Opening IPO Auction
	A	Auction / Intraday IPO Auction / Continuous Auction / Midpoint Crossing
	F	Closing Auction / Vwap Crossing
	E	End-of-Day Auction
	C	Continuous Trading
	V	Volatility Interruption in Continuous Trading
	S	Special Auction
	B	Trade with Bundesbank participation
	U	Price from Subscription period

2.3.3. Trade Conditions on Frankfurt

The following subsections describe the trade conditions on Frankfurt:

- 2.3.3.1. Frankfurt Index Type Indicator
- 2.3.3.2. Frankfurt Last Auction Quantity
- 2.3.3.3. Frankfurt Trade Type Indicator.

2.3.3.1. Frankfurt Index Type Indicator

Each time a change of the index tick occurs, the values of the specific quotation tag **Index Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Index Type Indicator** is described in the table below:

Table 7 Index Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_IndexTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15150`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the index type.
Possible Values	`I`	Indicative
	`R`	Representative
	`A`	Official
	`U`	Not Verified

2.3.3.2. Frankfurt Last Auction Quantity

Each time a change of the auction quantity occurs, the values of the quotation tag **Last Auction Quantity** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Last Auction Quantity** is described in the table below:

Table 8 Last Auction Quantity – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastAuctionQty`	QuantFEED® tag name.
Numeric ID	`15151`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, detailing the last auction quantity.

2.3.3.3. Frankfurt Trade Type Indicator

Each time a change of the trade occurs, the values of the specific quotation tag **Trade Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Trade Type Indicator** is described in the table below:

Table 9 Trade Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_TradeTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15400`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the trade type.
Possible Values	`M (77)`	Market Trade (Crossing)
	`S (83)`	Xetra Best Trade
	`X (88)`	Exchange Trade
	`P (80)`	Last Midpoint Order Price

2.3.4. Other Values on Frankfurt

The following subsections describe the other values available on Frankfurt:

- 2.3.4.1. Frankfurt Last Trade Trading Phase

2.3.4.1. Frankfurt Last Trade Trading Phase

The values of the specific quotation tag **Last Trade Trading Phase** conveyed on the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the specific trading phase of the last traded instrument:

- 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_CEF_LastTradeTradingPhase` is described in the table below:

Table 10 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastTradeTradingPhase`	QuantFEED® tag name.
Numeric ID	14900	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the specific trading phase of the last traded instrument.
Possible Values	O	Opening Auction / Opening IPO Auction
	A	Auction / Intraday IPO Auction / Continuous Auction / Midpoint Crossing
	F	Closing Auction / Vwap Crossing
	E	End-of-Day Auction
	C	Continuous Trading
	V	Volatility Interruption in Continuous Trading
	S	Special Auction
	B	Trade with Bundesbank participation
	U	Price from Subscription period

2.3.5. Trade Conditions on XETRA Cash Level 1

The following subsections describe the trade conditions on XETRA Cash Level 1:

- 2.3.5.1. XETRA Cash Level 1 Index Type Indicator
- 2.3.5.2. XETRA Cash Level 1 Last Auction Quantity
- 2.3.5.3. XETRA Cash Level 1 Trade Type Indicator.

2.3.5.1. XETRA Cash Level 1 Index Type Indicator

Each time a change of the index tick occurs, the values of the specific quotation tag **Index Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Index Type Indicator** is described in the table below:

Table 11 Index Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_IndexTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15150`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the index type.
Possible Values	`I`	Indicative
	`R`	Representative
	`A`	Official
	`U`	Not Verified

2.3.5.2. XETRA Cash Level 1 Last Auction Quantity

Each time a change of the auction quantity occurs, the values of the quotation tag **Last Auction Quantity** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Last Auction Quantity** is described in the table below:

Table 12 Last Auction Quantity – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastAuctionQty`	QuantFEED® tag name.
Numeric ID	`15151`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, detailing the last auction quantity.

2.3.5.3. XETRA Cash Level 1 Trade Type Indicator

Each time a change of the trade occurs, the values of the specific quotation tag **Trade Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Trade Type Indicator** is described in the table below:

Table 13 Trade Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_TradeTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15400`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the trade type.
Possible Values	`[empty]`	No entry
	`M (77)`	Market Trade (Crossing)
	`S (83)`	Xetra Best Trade
	`X (88)`	Exchange Trade
	`P (80)`	Last Midpoint Order Price

2.3.6. Other Values on XETRA Cash Level 1

The following subsections describe the other values available on XETRA Cash Level 1:

2.3.6.1. XETRA Cash Level 1 Last Trade Trading Phase

The values of the specific quotation tag **Last Trade Trading Phase** conveyed on the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the specific trading phase of the last traded instrument:

- 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_CEF_LastTradeTradingPhase` is described in the table below:

Table 14 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastTradeTradingPhase`	QuantFEED® tag name.
Numeric ID	`14900`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the specific trading phase of the last traded instrument.

Table 14 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	O	Opening Auction / Opening IPO Auction
	A	Auction / Intraday IPO Auction / Continuous Auction / Midpoint Crossing
	F	Closing Auction / Vwap Crossing
	E	End-of-Day Auction
	C	Continuous Trading
	V	Volatility Interruption in Continuous Trading
	S	Special Auction
	B	Trade with Bundesbank participation
	U	Price from Subscription period

2.3.7. Trade Conditions on XETRA STOXX Index

The following subsections describe the trade conditions on XETRA STOXX Index:

- 2.3.7.1. XETRA STOXX Index – Index Type Indicator.

2.3.7.1. XETRA STOXX Index – Index Type Indicator

Each time a change of the index tick occurs, the values of the specific quotation tag **Index Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Index Type Indicator** is described in the table below:

Table 15 Index Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_IndexTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15150`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the index type.
Possible Values	**For Segment '14'**	
	A	Official
	I	Indicative
	M	End of Month Price
	R	Representative
	U	Not Verified
	For Segment '1' at '23'	
	SPACE	Regular Index

2.3.8. Other Values on XETRA STOXX Index

The following subsections describe the other values available on XETRA STOXX Index:

- 2.3.8.1. XETRA STOXX Index Last Trade Trading Phase

2.3.8.1. XETRA STOXX Index Last Trade Trading Phase

The values of the specific quotation tag **Last Trade Trading Phase** conveyed on the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the specific trading phase of the last traded instrument:

- 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_CEF_LastTradeTradingPhase` is described in the table below:

Table 16 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastTradeTradingPhase`	QuantFEED® tag name.
Numeric ID	14900	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the specific trading phase of the last traded instrument.
Possible Values	O	Opening Auction / Opening IPO Auction
	A	Auction / Intraday IPO Auction / Continuous Auction / Midpoint Crossing
	F	Closing Auction / Vwap Crossing
	E	End-of-Day Auction
	C	Continuous Trading
	V	Volatility Interruption in Continuous Trading
	S	Special Auction
	B	Trade with Bundesbank participation
	U	Price from Subscription period

2.3.9. Trade Conditions on XETRA Selected Indices

The following subsections describe the trade conditions on XETRA Selected Indices:

- 2.3.9.1. XETRA Selected Indices – Index Type Indicator.

2.3.9.1. XETRA Selected Indices – Index Type Indicator

Each time a change of the index tick occurs, the values of the specific quotation tag **Index Type Indicator** in the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Context*:

- 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 **Index Type Indicator** is described in the table below:

Table 17 Index Type Indicator – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_IndexTypeIndicator`	QuantFEED® tag name.
Numeric ID	`15150`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the characteristics of the index type.
Possible Values	`I`	Indicative
	`R`	Representative
	`A`	Official
	`U`	Not Verified

2.3.10. Other Values on XETRA Selected Indices

The following subsections describe the other values available on XETRA Selected Indices:

- 2.3.10.1. XETRA Selected Indices Last Trade Trading Phase

2.3.10.1. XETRA Selected Indices Last Trade Trading Phase

The values of the specific quotation tag **Last Trade Trading Phase** conveyed on the CEF Core market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the specific trading phase of the last traded instrument:

- 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_CEF_LastTradeTradingPhase` is described in the table below:

Table 18 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_CEF_LastTradeTradingPhase`	QuantFEED® tag name.
Numeric ID	`14900`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions data stream. It is the numeric equivalent of the tag name.
Type	`Char`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the specific trading phase of the last traded instrument.

Table 18 MARKET_CEF_LastTradeTradingPhase – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	O	Opening Auction / Opening IPO Auction
	A	Auction / Intraday IPO Auction / Continuous Auction / Midpoint Crossing
	F	Closing Auction / Vwap Crossing
	E	End-of-Day Auction
	C	Continuous Trading
	V	Volatility Interruption in Continuous Trading
	S	Special Auction
	B	Trade with Bundesbank participation
	U	Price from Subscription period

3. Official Closing Price

For the market CEF Core, the closing price is the last trade price upon close. The settlement price is handled when provided by the market.

4. 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: support@quanthouse.com
- Web: http://support.quanthouse.com.