S&P Capital IQ's Real-Time Solutions

QuantFEED® Feed Description

NYSE Arca Integrated Feed

Reference n°: 20131212

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ's Real-Time Solutions (QuantHouse®) – QuantFEED®
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QUANTFEED® NYSE ARCA INTEGRATED 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 NYSE Arca Integrated market data stream, their possible values and current QuantFEED® technical implementation.

The topics this feed description covers include*:

- 1. Referential Data
- 2. Quotation Data
- 3. Official Closing Price
- 4. Finding the Latest Information.

1. Referential Data

The following sections describe the characteristics of the referential data on NYSE Arca Integrated market data stream, in terms of:

- 1.1. Available Markets and Branches
- 1.2. Types of Instruments.

1.1. Available Markets and Branches

This section details the list of markets and branches available on NYSE Arca Integrated market data stream:

- 1.1.1. Markets
- 1.1.2. Branches.

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

1.1.1. Markets

The NYSE Arca Integrated market data stream broadcasts informations about the following markets:

Table 1 List of markets available on NYSE Arca Integrated market data stream

QuantFEED® Market ID	Market
ARCX	NYSE Arca

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

```
MARKETS
market # 359    CC=US/UNITED STATES OF AMERICA/NEW YORK,DESCR=NYSE ARCA,
WEB=www.archipelago.com
    MIC = ARCX
    TimeZone = America/New_York
    Country = US
    NbMaxInstruments = 2000000
```

1.1.2. Branches

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

```
BRANCHES
    { ARCX CS   EXXXXX } qty: 4873
    { ARCX MF   EMXXXX } qty: 1571
    { ARCX NONE EUXXXX } qty: 344
    { ARCX NONE EXXXXX } qty: 394
    { ARCX NONE MXXXXX } qty: 204
    { ARCX NONE RXXXXX } qty: 7
    { ARCX PS   EPXXXX } qty: 554
    { ARCX PS   ESXXXX } qty: 191
    { ARCX SECLOAN EXXXXX } qty: 7
    { ARCX WAR  RWXXXX } qty: 96
    { ARCX XLINKD  MRXXXX } qty: 33
```

1.2. Types of Instruments

The following sections illustrate the instruments' characteristics on NYSE Arca Integrated market data stream, according to their type:

- 1.2.1. Equities
- 1.2.2. Warrants
- 1.2.3. Other Instruments.

1.2.1. Equities

The sample below illustrates the details of an equity:

```
instr # 359/758624 = 753636192
    Symbol                      string{QYLD}
    SecurityType                string{MF}
    FOSMarketId                 ARCX
    CFICode                     string{EMXXXX}
    InternalCreationDate        Timestamp{2013-12-12 05:30:01:438}
    InternalModificationDate    Timestamp{2013-12-12 05:35:05:602}
    InternalSourceId            uint16{145}
    LocalCodeStr                string{43277}
```

1.2.2. Warrants

The sample below illustrates the details of a warrant:

```
instr # 359/758608 = 753636176
    Symbol                      string{CATYW}
    SecurityType                string{WAR}
    FOSMarketId                 ARCX
    CFICode                     string{RWXXXX}
    InternalCreationDate        Timestamp{2013-12-04 05:20:34:916}
    InternalModificationDate    Timestamp{2013-12-04 05:20:34:916}
    InternalSourceId            uint16{145}
    LocalCodeStr                string{43227}
```

1.2.3. Other Instruments

The sample below illustrates the details of other available instruments:

```
instr # 359/758604 = 753636172
    Symbol                      string{MHNC}
    SecurityType                string{NONE}
    FOSMarketId                 ARCX
    CFICode                     string{MXXXXX}
    InternalCreationDate        Timestamp{2013-11-27 05:19:38:331}
    InternalModificationDate    Timestamp{2013-11-27 05:19:38:331}
    InternalSourceId            uint16{145}
    LocalCodeStr                string{43216}
```

2. Quotation Data

The following sections describe the characteristics of the quotation data on NYSE Arca Integrated market data stream, in terms of:

- 2.1. Quotation Values
- 2.2. Trading Status

- 2.3. Specific Quotation Tags.

2.1. Quotation Values

The examples below shows the possible values of an instrument on NYSE Arca Integrated market data stream:

```
InstrumentStatusL1
-- 359/758624
        BID: 24.86      100     @1
        ASK: 25.14      100     @1
        InternalDailyOpenTimestamp      Timestamp{2013-12-12 15:00:01:006}
        InternalPriceActivityTimestamp  Timestamp{2013-12-12 15:07:27:080}
        TradingStatus                   17=ReadyToTrade
        PreviousDailyTotalVolumeTraded  float64{0}
        PreviousDailyClosingPrice       float64{0}
        CurrentBusinessDay              Timestamp{2013-12-12}
        InternalLastAuctionTimestamp    Timestamp{2013-12-12 13:59:35:880}
        MARKET_NYSE_SecurityStatus      char{5}
        MARKET_NYSE_HaltCondition       char{~}
```

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

2.2. Trading Status

Each time a modification of the trading status occurs, the values of the quotation tag **Trading Status** conveyed on the NYSE Arca Integrated market data stream are disseminated via QuantFEED®'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®'s implementation of the tag `TradingStatus` is described in the following table:

Table 2 TradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	9100	QuantFEED® unique ID disseminated on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Type	`Enum`	Enum data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the characteristics of the trading status.
Possible Values	15	New Price Indication
	17	Ready to Trade
	18	Not Available for Trading
	21	Pre-Open

2.3. Specific Quotation Tags

The following sections describe additional, specific quotation tags available on NYSE Arca Integrated market data stream:

- 2.3.1. Other Values.

2.3.1. Other Values

The following subsections describe the trade conditions on NYSE Arca Integrated market data stream:

- 2.3.1.1. Trade Condition
- 2.3.1.2. Security Status
- 2.3.1.3. Halt Condition.

2.3.1.1. Trade Condition

The values of the quotation tag **Trade Condition** conveyed on the NYSE Arca Integrated market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to detail the conditions of a 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.

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

Table 3 MARKET_NYSE_TradeCond – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_NYSE_TradeCond`	QuantFEED® tag name.
Numeric ID	`14790`	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the trade condition, as detailed below.

Table 3 MARKET_NYSE_TradeCond – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	`@`	Regular Sale
	`<space>`	N/A
	`4`	Derivatively Priced
	`5`	Market Center Reopening Trade
	`6`	Market Center Closing Trade
	`9`	Corrected Consolidated Close (per listing market)
	`B`	Average Price Trade
	`C`	Cash
	`E`	Automatic Execution
	`F`	Intermarket Sweep Order
	`H`	Price Variation Trade
	`I`	Odd Lot Trade
	`K`	Rule 127 (NYSE only) or Rule 155 (NYSE MKT Only)
	`L`	Sold Last
	`M`	Official Closing Price
	`N`	Next Day Trade
	`O`	Market Center Opening Trade
	`P`	Prior Reference Price
	`Q`	Official Open Price
	`R`	Seller
	`T`	Extended Hours Trade
	`U`	Extended Hours Sold (Out of Sequence)
	`V`	Stock-Option Trade
	`X`	Cross Trade
	`Z`	Sold

2.3.1.2. Security Status

Each time a modification of the security status occurs, the values of the quotation tag **Security Status** conveyed on the NYSE Arca Integrated market data stream are disseminated via S&P Capital IQ's Real-Time Solutions's data stream in *Other Values* to indicate the current status of the 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_NYSE_SecurityStatus` is described in the table below:

Table 4 MARKET_NYSE_SecurityStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_NYSE_SecurityStatus`	QuantFEED® tag name.
Numeric ID	14791	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Type	Char	String data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, indicating the current status of the instrument.
Possible Values	3	Opening Delay
	4	Trading Halt
	5	Resume
	6	No Open/No Resume
	A	Short Sale Restriction Activated (Day 1)
	C	Short Sale Restriction Continued (Day 2)
	D	Short Sale Restriction Deactivated
	~	No Short Sale in Effect
	E	Short Sale restriction in Effect

2.3.1.3. Halt Condition

Each time an instrument is halted from trading, the values of the quotation tag **Halt Condition** conveyed on the NYSE Arca Integrated 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 `MARKET_NYSE_HaltCondition` is described in the table below:

Table 5 MARKET_NYSE_HaltCondition – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_NYSE_HaltCondition`	QuantFEED® tag name.
Numeric ID	14792	QuantFEED® unique ID broadcast on S&P Capital IQ's Real-Time Solutions's data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
Format	*[Exchange Specific Value]*	An ***exchange specific value***, detailing the condition of halting an instrument, as described below.

Table 5 MARKET_NYSE_HaltCondition – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	`<space>`	Not applicable
	`~`	Security not delayed/halted
	`A`	As of Update
	`D`	News dissemination
	`I`	Order imbalance
	`P`	News pending
	`J`	Due to related security - news dissemination
	`K`	Due to related security - news pending
	`M`	Volatility Trading Pause
	`Q`	Due to related security
	`S`	Related security (not used)
	`V`	In view of common
	`X`	Equipment changeover
	`Y`	Sub penny Trading
	`Z`	No open/No resume

3. Official Closing Price

On the market NYSE Arca Integrated, the closing price is provided by the market. If it is not sent by the market, the last trade is used as the closing price. When a stock splits, the closing price is adjusted after the closing. 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.