S&P Capital IQ Real-Time Solutions

QuantFEED® Feed Description

MONTREAL Feed

Reference n°: 18187 – 19257 – 20140620

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
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Reference 18187 – 19257 – 20140620
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QUANTFEED® MONTREAL FEED DESCRIPTION

As part of S&P Capital IQ Real-Time Solutions QuantFEED® documentation, this feed description provides you with details about the types of data broadcast on the MONTREAL 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. Multi-Session Kinematics
- 5. Finding the Latest Information.

1. Referential Data

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

1.1.1. Markets

The MONTREAL market data stream broadcasts informations about the following markets:

Table 1 List of markets available on the MONTREAL market data stream

QuantFEED® Market ID	Market
XMOD	The Montreal Exchange

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

```
MARKETS
market # 43     CC=CA/CANADA/MONTREAL,DESCR=MONTREAL EXCHANGE THE / BOURSE DE MONTREAL
(OTIONS AND OTHER DERIVATIVES),WEB=www.m-x.ca
    MIC = XMOD
    TimeZone = America/Toronto
    Country = CA
    NbMaxInstruments = 2000000
```

1.1.2. Branches

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

```
BRANCHES
    { XMOD FUT  FFIXXX } qty: 32
    { XMOD FUT  FFMXXX } qty: 53
    { XMOD MLEG SXXXXX } qty: 767
    { XMOD OOF  OCXFXX } qty: 1737
    { XMOD OOF  OPXFXX } qty: 1737
    { XMOD OPT  OCAXXX } qty: 20967
    { XMOD OPT  OCEXXX } qty: 557
    { XMOD OPT  OPAXXX } qty: 15187
    { XMOD OPT  OPEXXX } qty: 557
```

1.2. Types of Instruments

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

- 1.2.1. Futures
- 1.2.2. Multilegs
- 1.2.3. Options.

1.2.1. Futures

The sample below illustrates the details of a future:

```
instr # 43/81809 = 90259345
    PriceCurrency               string{USD}
    Symbol                      string{EMF}
    SecurityType                string{FUT}
    StdMaturity                 string{201409}
    FOSMarketId                 XMOD
    CFICode                     string{FFIXXX}
    InternalCreationDate        Timestamp{2014-06-10 06:00:02:216}
    InternalModificationDate    Timestamp{2014-06-10 06:00:02:216}
    InternalSourceId            uint16{22}
    LocalCodeStr                string{EMFU4}
    PriceIncrement_static       float64{0.05}
    MaturityYear                uint16{2014}
    MaturityMonth               uint8{9}
    MaturityDay                 uint8{19}
    SecurityTradingId           string{EMFU14}
    MBLLayersDesc               string{0,1}
    OperatingMIC                string{XMOD}
```

1.2.2. Multilegs

The sample below illustrates the details of a multileg:

```
instr # 43/83035 = 90260571
    Symbol                      string{DGC_UDS_ESMSL0}
    Description                 string{+01DGC   140621C12.50-01DGC   140719C13.00}
    SecurityType                string{MLEG}
    StdMaturity                 string{201406}
    FOSMarketId                 XMOD
    CFICode                     string{SXXXXX}
    NbLegs                      uint8{2}
    InternalCreationDate        Timestamp{2014-06-18 14:41:05:035}
    InternalModificationDate    Timestamp{2014-06-18 14:41:05:035}
    InternalSourceId            uint16{22}
    LocalCodeStr                string{DGC_UDS_ESMSL0}
    PriceIncrement_static       float64{0.01}
    MaturityYear                uint16{2014}
    MaturityMonth               uint8{6}
    MaturityDay                 uint8{21}
    SecurityTradingId           string{DGC_UDS_ESMSL0}
    MBLLayersDesc               string{0,1}
    OperatingMIC                string{XMOD}
    LegFOSInstrumentCode        uint32{90252894}
    LegFOSInstrumentCode_1      uint32{90239403}
    LegRatioQty                 float64{1}
    LegRatioQty_1               float64{1}
    LegFIXSide                  '1'=Buy
    LegFIXSide_1                '2'=Sell
```

1.2.3. Options

The sample below illustrates the details of an option:

```
instr # 43/82732 = 90260268
    PriceCurrency               string{CAD}
    Symbol                      string{OBZ}
    SecurityType                string{OOF}
    StdMaturity                 string{201506}
    StrikePrice                 float64{96.75}
    FOSMarketId                 XMOD
    CFICode                     string{OCXFXX}
    StrikeCurrency              string{CAD}
    InternalCreationDate        Timestamp{2014-06-17 06:00:03:219}
    InternalModificationDate    Timestamp{2014-06-17 06:00:03:219}
    InternalSourceId            uint16{22}
    LocalCodeStr                string{OBZM5C00967503}
    UnderlyingLocalCodeStr      string{BAX}
    MaturityYear                uint16{2015}
    MaturityMonth               uint8{6}
    MaturityDay                 uint8{12}
    PriceIncrement_dynamic_TableId      uint32{1441895}
    SecurityTradingId           string{OBZM15C9675}
    MBLLayersDesc               string{0,1}
    OperatingMIC                string{XMOD}
```

2. Quotation Data

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

- 2.1. Quotation Values
- 2.2. Trading Status.

2.1. Quotation Values

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

```
InstrumentStatusL1
-- 43/81809
        BID: 513.45     0       *NO ORDER*
        ASK: 514.4      0       *NO ORDER*
        LastPrice                       float64{514.9}
        LastTradeQty                    float64{1}
        DailyHighPrice                  float64{513.9}
        DailyLowPrice                   float64{513.9}
        DailyTotalVolumeTraded          float64{1}
        DailyTotalAssetTraded           float64{513.9}
        LastTradePrice                  float64{513.9}
        LastTradeTimestamp              Timestamp{2014-06-23 18:33:00}
        InternalDailyOpenTimestamp      Timestamp{2014-06-23 10:00:00:030}
        InternalDailyCloseTimestamp     Timestamp{2014-06-23 21:10:02:774}
        InternalDailyHighTimestamp      Timestamp{2014-06-23 18:33:00:422}
        InternalDailyLowTimestamp       Timestamp{2014-06-23 18:33:00:422}
        InternalPriceActivityTimestamp  Timestamp{2014-06-24 06:00:11:445}
        LowLimitPrice                   float64{459.9}
        HighLimitPrice                  float64{569.9}
        TradingStatus                   18=NotAvailableForTrading
        DailyOpeningPrice               float64{513.9}
        DailyClosingPrice               float64{514.9}
        DailySettlementPrice            float64{514.9}
        PreviousDailyTotalVolumeTraded  float64{11}
        PreviousDailyTotalAssetTraded   float64{5647.4}
        PreviousDailyClosingPrice       float64{514.95}
        PreviousBusinessDay             Timestamp{2014-06-20}
        CurrentBusinessDay              Timestamp{2014-06-23}
        PreviousDailySettlementPrice    float64{514.95}
        PriceActivityMarketTimestamp    Timestamp{2014-06-23 18:33:00}
```

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 MONTREAL market data stream are disseminated via QuantFEED® 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 Trading Status of the MONTREAL market data stream – 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 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

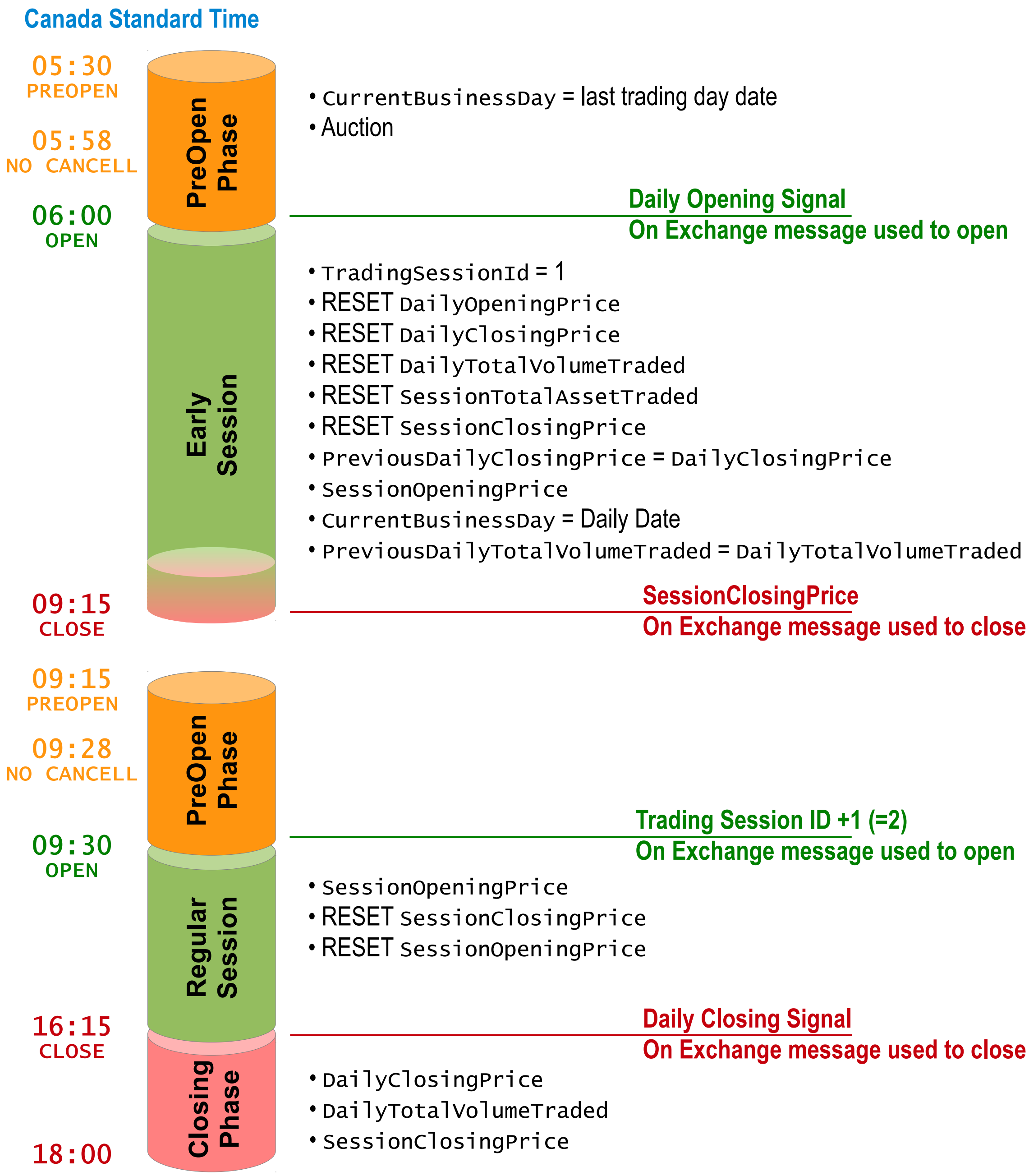
3. Official Closing Price

The closing price is the last trade price upon close, as provided by the exchange. The settlement price is handled when provided by the market.

4. Multi-Session Kinematics

The following diagram describes the main trading phases and the update mechanism of the tags on the MONTREAL market data stream:

Figure 2-1 Update mechanism of the tags on the MONTREAL market data stream during a regular trading day



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