QuantHouse® FeedOS™

FeedOS™ Developer's Notice

Milan Data Feed Migration to MilleniumIT

Reference n°: 20120619

Effective as of: 25 June 2012

Action required from users: Mandatory

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Reference 20120619
June 19, 2012

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MILAN DATA FEED MIGRATION TO MILLENIUMIT

To reflect the changes caused by the migration of the Borsa Italiana market data stream to the MilleniumIT format, QuantHouse® has decided to enhance the content of QuantFEED®. The changes also require customers using Milan Data Feed for replay purposes to upgrade their FeedOS™ API.

This developer's notice contains late-breaking information about the implementation of this modification in your applications, which may not be included otherwise in the published documentation. The topics this notice covers include:

- 1. Update Summary
- 2. Functional Description
- 3. QuantFEED® Technical Implementation
- 5. Finding the Latest Information.

1. Update Summary

Table 1 Current update summary

Notice Reference	20120619
Scope	Reference Data
Exchanges	Borsa Italiana – Milan Data Feed
Effective Date	**2012-06-25**
Impact	• Update of the Referential and Quotation Tags • FeedOS™ API Upgrade for Feed Replay
Action required	Mandatory

2. Functional Description

Starting **June 25, 2012**, QuantHouse® changes the content of `LocalCodeStr` referential tag to accommodate the information disseminated on Milan Data Feed, following the migration to the MilleniumIT format.

Moreover, on the market type MOTX, the referential tag `Symbol` (**NumericID:** `55`, **Type:** `String`) is no longer disseminated.

Two new quotation tags – `MARKET_MILAN_MIT_TradingStatusDetails` and `MARKET_LSE_MIT_Halt_Reason` – are now available in QuantFEED®'s Level 1 Data Stream to detail the trading status, while the quotation tag `TradingStatus` (**NumericID:** `9100`, **Type:** `Enum`) has different possible values.

Furthermore, one new quotation context tag `MARKET_MILAN_MIT_AuctionTypeIndicator` (**NumericID:** `16350`, **Type:** `Char`) will be disseminated in QuantFEED®'s Level 1 Data Stream to detail the type of auction.

3. QuantFEED® Technical Implementation

The following sections describe the technical implementation of the new or updated tags:

- 3.1. Technical Implementation of the Referential Tags
- 3.2. Technical Implementation of the Quotation Tags.

3.1. Technical Implementation of the Referential Tags

The tag `LocalCodeStr` is disseminated via QuantHouse®'s data stream in *Referential*, when new details about the instrument and market are available.

QuantFEED® implementation of the tag `LocalCodeStr` is described in the following table:

Table 2 Borsa Italiana LocalCodeStr technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`LocalCodeStr`	QuantFEED® tag name.
Numeric ID	`9500`	QuantFEED® unique ID disseminated on QuantHouse®'s data stream. This is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value*** concerning the local code. For more details, see section 2. Functional Description on page 1.

Below is an example of the previous and current tag implementation in the Borsa Italiana's market data stream:

Affari Old Version

```
instr # 285/1603 = 597689923
   PriceCurrency                string{EUR}
   Symbol                       string{WMEF13}
   Issuer                       string{MERIDIANA FLY}
   Description                  string{MERIDIANA FLY WARR MERIDIANA FLY 2012-2013}
   SecurityType                 string{WAR}
   StrikePrice                  float64{1.275}
   FOSMarketId                  MTAA
   CFICode                      string{RWXXXX}
   RoundLot                     float64{1}
   MinTradeVol                  float64{1}
   SecuritySubType              string{WR}
   InternalCreationDate         Timestamp{2012-04-12 16:18:09:467}
   InternalModificationDate     Timestamp{2012-06-05 04:15:22:252}
   InternalSourceId             uint16{30}
   LocalCodeStr                 string{IT_IT0004785272}
   ISIN                         string{IT0004785272}
   MaturityYear                 uint16{2013}
   MaturityMonth                uint8{5}
   MaturityDay                  uint8{31}
   PriceIncrement_dynamic_TableId       uint32{1966182}
   MARKET_LSE_NormalMarketSize float64{45000}
   MARKET_LSE_SectorCode        string{I1S}
   MARKET_LSE_SegmentCode       string{MB1}
```

Affari New Version

```
instr # 285/1603 = 597689923
    PriceCurrency                string{EUR}
    Symbol                       string{WMEF13}
    Issuer                       string{MERIDIANA FLY}
    Description                  string{WARR MERIDIANA FLY 2012-2013}
    SecurityType                 string{WAR}
    StrikePrice                  float64{1.275}
    FOSMarketId                  MTAA
    CFICode                      string{RWXXXX}
    RoundLot                     float64{1}
    MinTradeVol                  float64{1}
    SecuritySubType              string{WR}
    InternalCreationDate         Timestamp{2012-06-07 14:28:24:407}
    InternalModificationDate     Timestamp{2012-06-07 14:28:24:407}
    InternalSourceId             uint16{3}
    LocalCodeStr                 string{714225}
    ISIN                         string{IT0004785272}
    MaturityYear                 uint16{2013}
    MaturityMonth                uint8{5}
    MaturityDay                  uint8{31}
    PriceIncrement_dynamic_TableId       uint32{1966182}
    MARKET_LSE_NormalMarketSize float64{45000}
    MARKET_LSE_SectorCode        string{I1S}
    MARKET_LSE_SegmentCode       string{MB1}
```

Moreover, the referential tag `Symbol` (**NumericID:** `55`, **Type:** `String`) of the MOTX market type is removed, as illustrated in the example below:

MOTX Old Version

```
instr # 36/1000 = 75498472
    PriceCurrency                string{ITL}
    Symbol                       string{B2OC}
    Issuer                       string{INTESA SANPAOLO}
    Description                  string{INTESA SANPAOLO SPAOLO-CF O       6%}
    SecurityType                 string{NONE}
    FOSMarketId                  MOTX
    CFICode                      string{DBFXXX}
    RoundLot                     float64{5000000}
    MinTradeVol                  float64{5000000}
    SecuritySubType              string{FX}
    InternalCreationDate         Timestamp{2009-12-07 05:15:02:472}
    InternalModificationDate     Timestamp{2012-06-08 04:16:18:748}
    InternalSourceId             uint16{30}
    InternalAggregationId        uint16{30}
    LocalCodeStr                 string{IT_IT0000018546}
    ISIN                         string{IT0000018546}
    PriceIncrement_static        float64{0.001}
    MaturityYear                 uint16{2013}
    MaturityMonth                uint8{10}
    MaturityDay                  uint8{1}
    MARKET_LSE_NormalMarketSize  float64{50000000}
    MARKET_LSE_SectorCode        string{ICC}
    MARKET_LSE_SegmentCode       string{DMO}
```

MOTX New Version

```
instr # 36/1000 = 75498472
    PriceCurrency                string{ITL}
    Issuer                       string{INTESA SANPAOLO}
    Description                  string{SPAOLO-CF O       6%}
    SecurityType                 string{NONE}
    FOSMarketId                  MOTX
    CFICode                      string{DBFXXX}
    RoundLot                     float64{5000000}
    MinTradeVol                  float64{5000000}
    SecuritySubType              string{FX}
    InternalCreationDate         Timestamp{2012-06-08 09:48:11:202}
    InternalModificationDate     Timestamp{2012-06-08 12:05:03:882}
    InternalSourceId             uint16{19}
    LocalCodeStr                 string{21612}
    ISIN                         string{IT0000018546}
    PriceIncrement_static        float64{0.001}
    MaturityYear                 uint16{2013}
    MaturityMonth                uint8{10}
    MaturityDay                  uint8{1}
    MARKET_LSE_NormalMarketSize  float64{50000000}
    MARKET_LSE_SectorCode        string{ICC}
    MARKET_LSE_SegmentCode       string{DMO}
```

3.2. Technical Implementation of the Quotation Tags

Each time a status modification occurs, the new tags `MARKET_MILAN_MIT_TradingStatusDetails` and `MARKET_LSE_MIT_HaltReason` are being broadcast as quotation tags 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 values currently available for the tag `MARKET_MILAN_MIT_TradingStatusDetails` is described in the following table:

Table 3 Borsa Italiana MARKET_MILAN_MIT_TradingStatusDetails technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_MILAN_MIT_TradingStatusDetails`	QuantFEED® tag name.
Numeric ID	`14950`	QuantFEED® unique ID disseminated on QuantHouse®'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***, as described below, concerning the characteristics of the trading status. For more details, see section 2. Functional Description on page 1.
Possible Values	H	Halt
	T	Regular (Continuous Trading/Start of Trade Reporting)
	R	Resume Order Deletion period
	S	Trading Stop
	a	Opening Auction Call (Pre-Open)
	b	Post-Close
	c	Market Close (Closed)
	d	Closing Auction Call
	e	Re-Opening (AESP or Resume) Auction Call
	g	OPA Auction Call
	v	End of Trade Reporting
	w	No Active Session
	x	End of Post Close
	y	Pre-Trading (Start of Trading)
	z	Closing Price Publication

QuantFEED®'s implementation of the values currently available for the `MARKET_LSE_MIT_HaltReason` is described in the following table:

Table 4 Borsa Italiana MARKET_LSE_MIT_HaltReason technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_LSE_MIT_HaltReason`	QuantFEED® tag name.
Numeric ID	`14752`	QuantFEED® unique ID disseminated on QuantHouse®'s data stream. This is the numeric equivalent of the tag name.
Type	`String`	String data type.
Format / Possible Values	*`[Exchange Specific Value]`* If the Trading Status is not `H - Halt` or `S - Trading Stop`, this field contains only spaces.	An ***exchange specific value*** concerning the trading halt reason. For more details, see section 2. Functional Description on page 1.

QuantFEED®'s implementation of the values currently available for the tag `TradingStatus` is described in the following table:

Table 5 Borsa Italiana TradingStatus technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	`9100`	QuantFEED® unique ID disseminated on QuantHouse®'s data stream. This is the numeric equivalent of the tag name.
Type	`Enum`	Char data type.
Format	*`[Exchange Specific Value]`*	An ***exchange specific value***, as described below, concerning the trading status. For more details, see section 2. Functional Description on page 1.
Possible Values	`2`	Halt
	`3`	Resume
	`5`	Price Indication
	`17`	Ready to Trade
	`18`	Not Available for Trading
	`20`	Unknown
	`21`	Pre-open

QuantFEED®'s implementation of the values currently available for the tag `MARKET_MILAN_MIT_AuctionTypeIndicator` is described in the following table:

Table 6 Borsa Italiana MARKET_MILAN_MIT_AuctionTypeIndicator technical implementation

Component	Value	Description
Tag Name	`MARKET_MILAN_MIT_AuctionTypeIndicator`	QuantFEED® tag name.
Numeric ID	`16350`	QuantFEED® unique ID disseminated on QuantHouse®'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***, as described below, concerning the auction type indicator. For more details, see section 2. Functional Description on page 1.

Table 6 Borsa Italiana MARKET_MILAN_MIT_AuctionTypeIndicator technical implementation (Continued)

Component	Value	Description
Possible Values	C	Closing Auction
	O	Opening Auction
	A	Re-Opening (AESP or Resume Action)
	P	OPA

4. Upgrading FeedOS™ API for Replay Purposes

To be able to replay the Milan Data Feed that is recorded after the migration date – **June 25, 2012** –, you should upgrade the FeedOS™ API to the minimum required version, as described in the table below:

Table 7 Currently required version to replay Milan Data Feed

Language	FeedOS™ API – minimum required version
C++	3.6.3.3
C#	2.4.3.4

For more details about the upgrade procedure, see *FeedOS™API Guide*.

5. Finding the Latest Information

For the latest documentation and product updates, additional support and training, please contact our support services:

- E-mail: support@quanthouse.com
- Web: http://support.quanthouse.com.