S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

ICE – Feed Update

Reference n°: 20141013 – 23011 – 23012

Effective as of: 17 November 2014*

Action required from users: MANDATORY ACTION

S&P CAPITAL IQ
McGRAW HILL FINANCIAL

* For the actual day when the changes to your custom feed handler take effect, please contact your QuantFEED® project manager.

S&P Capital IQ Real-Time Solutions (QuantHouse®) – QuantFEED®
QuantFEED® Developer's Notice
Reference 20141013 – 23011 – 23012
November 05, 2014

Corporate Headquarters
S&P Capital IQ Real-Time Solutions (QuantHouse®)
52 Rue de la Victoire
75009 Paris
France
Tel: +33 (0) 1 73 02 32 11
Fax: +33 (0) 1 73 02 32 12

US Offices
55 Water Street, 44th floor
New York, NY 10041
United States of America
Tel: +1-(212)-438-4346

130 East Randolph
One Prudential Plaza, Suite 2900
Chicago, IL 60601
United States of America
Tel: +1-(312)-233-7129

UK Office
20 Canada Square
Canary Wharf
London E14 5LH
United Kingdom
Tel: +44 (0) 203 107 1676

Singapore Office
12 Marina Boulevard
#23-01 Marina Bay
Financial Centre Tower 3
Singapore 018982
Tel: +65 6530 6546

www.quanthouse.com

UPDATE OF THE ICE MARKET DATA STREAM

To reflect the changes caused by the dissemination of new values on the ICE market data stream, S&P Capital IQ Real-Time Solutions has decided to modify the content of QuantFEED®.

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

1. Update Summary

Table 1 Current update summary

Notice Reference	20141013 – 23011 – 23012
Exchanges	ICE
Concerned MICs	ICEU, IFCA, IFEU, ICUS
Internal Source ID	66, 88, 188, 190
Effective Date	**2014-11-17***
Impact	• Update of the Referential Tags • Update of the Quotation Tags • Pre-Open Kinematics Update on Level1 Market Data • Update of the MBL Book Depth
Action required	**MANDATORY ACTION** – see sections 2.2.2. TradingStatus.

2. QuantFEED® Technical Implementation

Effective Monday, **November 17* 2014,** S&P Capital IQ Real-Time Solutions modifies the referential and quotation data, changes the Level1 Market Data Kinematics, and modifies the MBL Book Depth to accommodate the new information disseminated on the ICE market data stream, as described below:

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, this date may differ. For the actual day when the changes to your custom feed handler take effect, please contact your QuantFEED® project manager.

2.1. Changes to the Referential Data

S&P Capital IQ Real-Time Solutions **introduces** the referential tag below to accommodate the information disseminated on the ICE market data stream:

Table 2 Referential tags added on the ICE market data stream

Tag Name	Numeric ID	Type	On Instrument Type
MinTradeVol	562	Flot64	All
LegRatioQty	9700	Float64	Multilegs
MARKET_ICE_OffExchangeIncrementQty	11601	Float64	All
MARKET_ICE_OffExchangeIncrementPrice	11602	Float64	All

Moreover, S&P Capital IQ Real-Time Solutions **updates** the values of the referential tags below:

Table 3 Referential tags disseminating updated values on the ICE market data stream

Tag Name	Numeric ID	Type	On Instrument Type
PriceCurrency	15	String	Multilegs
Description	107	String	Multilegs
SecurityType	167	String	Options[i]
StdMaturity	200	String	Multilegs
CFICode	461	String	All
SecuritySubType	762	String	All
ProductComplex	1227	String	All

i. Options are not included in the ICE subscription, but sold separately. For more details about this subscription, please contact S&P Capital IQ Real-Time Solutions.

2.1.1. MinTradeVol

The values of the referential tag **MinTradeVol** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the minimum traded volume.

QuantFEED® implementation of the tag `MinTradeVol` is detailed in the table below:

Table 4 MinTradeVol – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MinTradeVol`	QuantFEED® tag name.
Numeric ID	`562`	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Float64`	String data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the minimum traded volume.

2.1.2. LegRatioQty

The values of the referential tag **LegRatioQty** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to indicate the ratio of quantity for an individual leg relative to the entire multileg security.

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

Table 5 LegRatioQty – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`LegRatioQty`	QuantFEED® tag name.
Numeric ID	`9700`	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Internal Specific Value]`*	An ***internal specific value***, detailing the ratio of quantity for an individual leg relative to the entire multileg security.

2.1.3. MARKET_ICE_OffExchangeIncrementQty

The values of the referential tag **MARKET_ICE_OffExchangeIncrementQty** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the increment quantity of the OTC.

QuantFEED® implementation of the tag `MARKET_ICE_OffExchangeIncrementQty` is detailed in the table below:

Table 6 MARKET_ICE_OffExchangeIncrementQty – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_ICE_OffExchangeIncrementQty`	QuantFEED® tag name.
Numeric ID	`11601`	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the increment quantity of the OTC.

2.1.4. MARKET_ICE_OffExchangeIncrementPrice

The values of the referential tag **MARKET_ICE_OffExchangeIncrementPrice** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the tick size of the OTC.

QuantFEED® implementation of the tag `MARKET_ICE_OffExchangeIncrementPrice` is detailed in the table below:

Table 7 MARKET_ICE_OffExchangeIncrementPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_ICE_OffExchangeIncrementPrice`	QuantFEED® tag name.
Numeric ID	`11602`	QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	`Float64`	Float64 data type.
Format / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the tick size of the OTC.

2.1.5. PriceCurrency

The values of the referential tag **PriceCurrency** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the currency of the price.

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

Table 8 PriceCurrency – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`PriceCurrency`	QuantFEED® tag name.
Numeric ID	`15`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the currency of the price.
Possible Values	`CAD`	Canadian Dollar
	`CHF`	Swiss Franc
	`CZK`	Czech Koruna
	`DKK`	Danish Krone
	`EUR`	Euro
	`GBP`	British Pound
	`HUF`	Hungarian Forint
	`NOK`	Norwegian Krone
	`PLN`	Polish Zloty
	`SEK`	Swedish Krona
	`TRY`	Turkish Lira
	`USD`	United States Dollar
	`USX`	United States Cent
	`ZAR`	South African Rand

2.1.6. Description

The values of the referential tag **Description** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to characterize an instrument.

QuantFEED® implementation of the tag `Description` is detailed in the table below:

Table 9 Description – technical implementation in QuantFEED®

Component	Value		Description
Tag Name	`Description`		QuantFEED® tag name.
Numeric ID	`107`		QuantFEED® 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	**Future**	`Retrieved from the description provided by the exchange`	**Example:** `Richards Bay Coal Futures - Richards Bay - Dec17`
	Future Spread	`Retrieved from the description provided by the exchange`	**Example:** `UK Natural Gas Spr - NBP - Q1 15/Q2 15`
Format	**Option**	`"Option on" + the description provided by the exchange`	**Example:** `Option on Cocoa Futures - NYCC - Dec14`

	Future MLEG	`[Side+Ratio+Symbol+Maturity+Type]`	`Side` – 1 byte, buy (+), sell (-)
			`Ratio` – 2 bytes
			`Symbol` – 6 bytes
			`Maturity` – YYYYMMDD
			`Type` – 1 byte
			
			The format applies for each leg.
			Example: `+01I 20140915F`
			`-02I 20141013F`
			`+01I 20141117F`

	Option MLEG	`[Side+Ratio+Leg's Product Complex]`	`Side` – 1 byte, buy (+), sell (-) `Ratio` – 2 bytes `Leg's Product Complex` – 21 bytes, OSI Standard, v. 1.8 The format applies for each leg. **Example:** `+01VOD 140919C00203000` `+01VOD 140919P00203000`
Possible Values	*`[Exchange Specific Value]`*		An ***exchange specific value***, characterizing the instrument.

2.1.7. SecurityType

The values of the referential tag **Security Type** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the type of security.

QuantFEED® implementation of the tag `SecurityType` is described in the table below (existing values are in `black`, newly added values are in `green`):

Table 10 SecurityType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`SecurityType`	QuantFEED® tag name.
Numeric ID	`167`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the type of security.
Possible Values	`FUT`	Future
	`MLEG`	Multileg
	`OOF`	Options on Futures

2.1.8. StdMaturity

The values of the referential tag **StdMaturity** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the standard maturity of a security.

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

Table 11 StdMaturity – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`StdMaturity`	QuantFEED® tag name.
Numeric ID	`200`	QuantFEED® 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	`[YYYYMM]`	Year-Month Format
Possible values	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the standard maturity of a security.

2.1.9. CFICode

The values of the referential tag **CFI Code** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the standardized identification code of an instrument.

QuantFEED® implementation of the tag `CFICode` is described in the table below (existing values are in `black`, newly added values are in `green`, and removed values are in ~~`crossed-out red`~~):

Table 12 CFICode – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`CFICode`	QuantFEED® tag name.
Numeric ID	`461`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the standardized identification code of an instrument.
Possible Values	`FCAXXS`	Futures - Commodities Futures - Agriculture, forestry and fishing - Spread
	`FCAXXX`	Futures - Commodities Futures - Agriculture, forestry and fishing
	`FCEXXS`	Futures - Commodities Futures - Extraction resources - Spread
	`FCEXXX`	Futures - Commodities Futures - Extraction resources
	~~`FCXXXX`~~	Futures - Commodities Futures
	`FFCXXM`	Futures - Financial Futures - Currencies - Others
	`FFCXXS`	Futures - Financial Futures - Currencies - Spread
	`FFCXXX`	Futures - Financial Futures - Currencies
	`FFIXXM`	Futures - Financial Futures - Indices - Others
	`FFIXXS`	Futures - Financial Futures - Indices - Spread
	`FFIXXX`	Futures - Financial Futures - Indices
	`FFMXXS`	Futures - Financial Futures - Others - Spread
	`FFMXXX`	Futures - Financial Futures - Others
	~~`FXXXXM`~~	Futures - Others
	~~`MRXXXX`~~	Others - Referential Instruments
	`MXXXXX`	Others
	`OCAFXX`	Options - Call Options - American - Futures
	`OCEFXX`	Options - Call Options - European - Futures
	`OPAFXX`	Options - Put Options - American - Futures
	`OPEFXX`	Options - Put Options - European - Futures

2.1.10. SecuritySubType

The values of the referential tag **SecuritySubType** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the subtype of a security.

QuantFEED® implementation of the tag `SecuritySubType` is described in the table below (existing values are in `black`, newly added values are in `green`, and removed values are in ~~`crossed-out red`~~):

Table 13 SecuritySubType – technical implementation in QuantFEED®

<table>
<tr><th>Component</th><th colspan="2">Value</th><th colspan="2">Description</th></tr>
<tr><td>Tag Name</td><td colspan="2">SecuritySubType</td><td colspan="2">QuantFEED® tag name.</td></tr>
<tr><td>Numeric ID</td><td colspan="2">762</td><td colspan="2">QuantFEED® unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.</td></tr>
<tr><td>Type</td><td colspan="2">String</td><td colspan="2">String data type.</td></tr>
<tr><td rowspan="8">Format</td><td>Future</td><td>“Future” + Contract Term</td><td colspan="2">Contract Term has one of the following values:
• Auction
• BlockAtIndexClose
• Day
• Week
• Balance_of_Month
• Month
• ~~Month-Future/Month~~
• Quarter
• ~~Quarter-Future/Quarter~~
• Serial
• Season
• ~~Season-Future/Season~~
• Balance_of_Week
• ~~Calendar_Year~~
• Variable
• Custom
• Host
• MinuteMarker
• Same_Day
• Next_Day
• Weekly
• Pack
• Bundle
• TradeAtAuction
• TradeAtIndexClose
• TradeAtSettlement
Example: Future/Month</td></tr>
<tr><td rowspan="7">Future Spread</td><td rowspan="7">Retrieved from the description provided by the exchange.</td><td>FEC Display Name</td><td>Strategy Name</td></tr>
<tr><td>BALMOSPR</td><td>Balmo over Month</td></tr>
<tr><td>BLUPACK</td><td>Pack (Blue)</td></tr>
<tr><td>BNDL</td><td>Bundle (no color)</td></tr>
<tr><td>BNDLY10</td><td>Bundle (10yr)</td></tr>
<tr><td>BNDLY2</td><td>Bundle (2yr)</td></tr>
<tr><td>BNDLY3</td><td>Bundle (3yr)</td></tr>
</table>

Table 13 SecuritySubType – technical implementation in QuantFEED® (Continued)

Component	Value		Description	
			FEC Display Name	**Strategy Name**
Format	**Future Spread**	Retrieved from the description provided by the exchange.	BNDLY4	Bundle (4yr)
			BNDLY5	Bundle (5yr)
			BNDLY6	Bundle (6yr)
			BNDLY7	Bundle (7yr)
			BNDLY8	Bundle (8yr)
			BNDLY9	Bundle (9yr)
			BOX	Box
			CALL	Call
			CALL3WAY	3-Way: Straddle versus a Call
			CALLCALSPR	Call Calendar Spread
			CALLCALX	Hedged Call Calendar
			CALLCALX	Hedged Call Calendar
			CALLCONDR	Call Condor
			CALLDIAGSP	Diagonal Call Spread
			CALLFLY	Call Butterfly
			CALLLADR	Call Ladder
			CALLLADRX	Hedged Call Ladder
			CALLLADRX	Hedged Call Ladder
			CALLSPR	Call Spread
			CALLSPRP	Call Spread versus Sell Put
			CALLSPRX	Hedged Call Spread
			CALLX	Hedged Call
			CALSTRD	Straddle Spread
			CALSTRDX	Hedged Straddle Spread
			CALSTRDX	Hedged Straddle Spread
			CALSTRDX	Hedged Straddle Spread
			CALSTRDX	Hedged Straddle Spread
			CCONDRX	Hedged Call Condor
			CCONDRX	Hedged Call Condor
			CDIAGX	Hedged Diagonal Call Spread
			CDIAGX	Hedged Diagonal Call Spread
			CFLYX	Hedged Call Butterlfy
			CFLYX	Hedged Call Butterlfy
			COMBOSPR	Combo Spread
			COPPACK	Pack (Copper)
			CRACK	CRACK Spread
			CSTRP	Call Strip
			CUST	Custom
			FCAL	Futures Calendar Spread

Table 13 SecuritySubType – technical implementation in QuantFEED® (Continued)

Component	Value		Description	
			FEC Display Name	**Strategy Name**
Format	**Future Spread**	Retrieved from the description provided by the exchange.	FCONDR	Futures Condor
			FENCECALL	Fence (to the call)
			FENCECALLX	Hedged Fence (to the call)
			FENCEPUT	Fence (to the put)
			FENCEPUTX	Hedged Fence (to the put)
			FFLY	Futures Butterfly
			FSTRP	Futures Strip
			GLDPACK	Pack (Gold)
			GRNPACK	Pack (Green)
			GUT	Gut Strangle
			GUTX	Hedged Guts Strangle
			GUTX	Hedged Guts Strangle
			HEATRATE	Heat Rate
			ICONDR	Iron Condor
			ICONDRX	Hedged Iron Condor
			ICONDRX	Hedged Iron Condor
			IFLY	Iron Butterfly
			IFLYX	Hedged Iron Butterfly
			IFLYX	Hedged Iron Butterfly
			JROLL	Jelly Roll
			OILCRACK	OTC Gas Oil Crack
			ORNPACK	Pack (Orange)
			PACK	Pack(no color)
			PCONDRX	Hedged Put Condor
			PCONDRX	Hedged Put Condor
			PDIAGX	Hedged Diagonal Put Spread
			PDIAGX	Hedged Diagonal Put Spread
			PFLYX	Hedged Put Butterlfy
			PFLYX	Hedged Put Butterlfy
			PLATDIFSPR	Platts Diff Spread
			PLATTSPR	Platts Spread
			PNKPACK	Pack (Pink)
			PSTRP	Put Strip
			PURPACK	Pack (Purple)
			PUT	Put
			PUT3WAY	3-Way: Straddle versus a Put
			PUTCALSPR	Put Calendar Spread
			PUTCALX	Hedged Put Calendar
			PUTCALX	Hedged Put Calendar

Table 13 SecuritySubType – technical implementation in QuantFEED® (Continued)

Component	Value		Description	
Format	**Future Spread**	Retrieved from the description provided by the exchange.	**FEC Display Name**	**Strategy Name**
			PUTCONDR	Put condor
			PUTDIAGSP	Diagonal Put Spread
			PUTFLY	Put Butterfly
			PUTLADR	Put Ladder
			PUTLADRX	Hedged Put Ladder
			PUTLADRX	Hedged Put Ladder
			PUTSPR	Put Spread
			PUTSPRC	Put Spread versus Sell Call
			PUTSPRX	Hedged Put Spread
			PUTX	Hedged Put
			RATIOCSPR	1x2 Call Spread
			RATIOCSPRX	Hedged 1x2 Call Spread
			RATIOCSPRX	Hedged 1x2 Call Spread
			RATIOPSPR	1x2 Put Spread
			RATIOPSPRX	Hedged 1x2 Put Spread
			RATIOPSPRX	Hedged 1x2 Put Spread
			RATIOSPR	Ratio Spread
			REDPACK	Pack (Red)
			REVCON	Reversal/Conversion
			SILPACK	Pack (Silver)
			SPR	Spread S
			SPRVSCX	Put Spread versus Sell Call + Hedge
			SPRVSPX	Call Spread versus Sell Put - Hedge
			STRADDLE	Straddle
			STRANGLE	Strangle
			STRDSTRP	Straddle Strip
			STRDX	Hedged Straddle
			STRDX	Hedged Straddle
			STRGX	Hedged Strangle
			STRGX	Hedged Strangle
			SYN	Synthetic Underlying
			VOLSPR	Volumetric Spread
			WHTPACK	Pack (White)
			Example: SPR	

Table 13 SecuritySubType – technical implementation in QuantFEED® (Continued)

Component	Value		Description
Format	**Option**	"Option on Future" + Contract Term	For the possible values of the Contract Term, see **Future** entry above. **Example:** Option on Future/Month
	Future MLEG	Retrieved from the description provided by the exchange	For the possible values of the Contract Term, see **Future Spread** entry above. **Example:** FFLY
	Option MLEG	Retrieved from the description provided by the exchange.	For the possible values of the Contract Term, see **Future Spread** entry above. **Example:** STRADDLE
Possible Values	*[Exchange Specific Value]*		An ***exchange specific value***, detailing the subtype of a security.

2.1.11. ProductComplex

The values of the referential tag **ProductComplex** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Referential* to identify an entire suite of products for a given market.

QuantFEED® implementation of the tag ProductComplex is detailed in the table below:

Table 14 ProductComplex – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	ProductComplex	QuantFEED® tag name.
Numeric ID	1227	QuantFEED® 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.

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

Component	Value		Description
Format	**Future**	[Symbol+Maturity+"F"]	Symbol – 6 bytes, security symbol Maturity – YYYYMMDD "F" – 1 byte **Example:** AFR 20171229F
	Future Spread	[Side+Ratio+Symbol+Maturity+Type]	Side – 1 byte, buy (+), sell (-) Ratio – 2 bytes Symbol – 6 bytes Maturity – YYYYMMDD Type – 1 byte The format applies for each leg. **Example:** +01H 20140926F -01H 20141229F
	Option	[Symbol+Maturity+Type+Strike]	Symbol – 6 bytes Maturity – YYYYMMDD Type – 1 byte, Call (C), Put (P) Strike – 8 bytes **Example:** ESX 141219C06500000
	Future MLEG	[Side+Ratio+Symbol+Maturity+Type]	Side – 1 byte, buy (+), sell (-) Ratio – 2 bytes Symbol – 6 bytes Maturity – YYYYMMDD Type – 1 byte The format applies for each leg. **Example:** +01I 20140915F -02I 20141013F +01I 20141117F
	Option MLEG	[Side+Ratio+Leg's Product Complex]	Side – 1 byte, buy (+), sell (-) Ratio – 2 bytes Leg's Product Complex – 21 bytes The format applies for each leg. **Example:** +01VOD 140919C00203000 +01VOD 140919P00203000
Possible Values	*[Exchange Specific Value]*		An ***exchange specific value***, identifying an entire suite of products for a given market.

Referential Data Sample

Below is an example of the current implementation of the newly added (in green) and updated (in blue) referential tags:

```
instr # 432/769824 = 906739488
    PriceCurrency               string{USD}
    Symbol                      string{BRN-BRN}
    Description                 string{Brent Crude Spr - North Sea - Jun17/Dec17}
    SecurityType                string{MLEG}
    StdMaturity                 string{201706}
    FOSMarketId                 ICEU
    Factor                      float64{1000}
    ContractMultiplier          float64{1000}
    CFICode                     string{FCEXXS}
    NbLegs                      uint8{2}
    MinTradeVol                 float64{1}
    SecuritySubType             string{SPR}
    ProductComplex              string{+01BRN   20170428F -01BRN   20171031F}
    InternalCreationDate        Timestamp{2014-10-23 14:52:07:250}
    InternalModificationDate    Timestamp{2014-10-23 14:52:07:250}
    InternalSourceId            uint16{148}
    InternalEntitlementId       ICE
    InternalMagic               string{5}
    LocalCodeStr                string{219796}
    PriceIncrement_static       float64{0.01}
    MaturityYear                uint16{2017}
    MaturityMonth               uint8{4}
    MaturityDay                 uint8{28}
    OperatingMIC                string{IFEU}
    LegFOSInstrumentCode        uint32{906739321}
    LegFOSInstrumentCode_1      uint32{906738922}
    LegRatioQty                 float64{1}
    LegRatioQty_1               float64{1}
    LegFIXSide                  '1'=Buy
    LegFIXSide_1                '2'=Sell
    MARKET_ICE_ContractSymbol   string{BRN FMM0017-BRN FMZ0017}
    MARKET_ICE_OffExchangeIncrementQty  float64{1}
    MARKET_ICE_OffExchangeIncrementPrice        float64{1}
```

2.2. Changes to the Quotation Data

S&P Capital IQ Real-Time Solutions **introduces** the quotation tags below to accommodate the information disseminated on the ICE market data stream:

Table 15 Quotation tags added on the ICE market data stream

Tag Name	Numeric ID	Type
MARKET_ICE_IntervalPriceLimitsOnHold	14503	Bool

S&P Capital IQ Real-Time Solutions **updates** the quotation tags below to accommodate the information disseminated on the ICE market data stream:

Table 16 Quotation tags disseminating updated values on the ICE market data stream

Tag Name	Numeric ID	Type
TradingStatus	9100	Enum

2.2.1. MARKET_ICE_IntervalPriceLimitsOnHold

The values of the quotation tag **MARKET_ICE_IntervalPriceLimitsOnHold** conveyed on the ICE market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate whether an instrument is in an IPL hold or not:

- 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_ICE_IntervalPriceLimitsOnHold` is described in the table below:

Table 17 MARKET_ICE_IntervalPriceLimitsOnHold – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`MARKET_ICE_IntervalPriceLimitsOnHold`	QuantFEED® tag name.
Numeric ID	`14503`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, indicating whether an instrument is in an IPL hold or not.
Possible Values	`True`	IPL hold

2.2.2. TradingStatus

Each time a modification of the trading status occurs, the values of the quotation tag **TradingStatus** conveyed on the ICE 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 `TradingStatus` is described in the following table (removed values are in ~~crossed out red~~):

Table 18 TradingStatus – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`TradingStatus`	QuantFEED® tag name.
Numeric ID	`9100`	QuantFEED® 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the characteristics of the trading status.
Possible Values	2	Trading Halt
	~~5~~	~~Price Indication~~
	17	Ready to Trade
	21	Pre-Open

Quotation Data Sample

Below is an example of the current implementation of the newly added (in green) and updated (in blue) quotation tags:

```
-- 432/761896
       BID: 0  0       *NO ORDER*
       ASK: 0  0       *NO ORDER*
       LastPrice                       float64{68.55}
       InternalDailyOpenTimestamp      Timestamp{2014-10-24 00:00:00:112}
       InternalDailyCloseTimestamp     Timestamp{2014-10-23 22:00:00:086}
       InternalPriceActivityTimestamp  Timestamp{2014-10-23 23:59:03:235}
       TradingStatus                   17=ReadyToTrade
       PreviousBusinessDay             Timestamp{2014-10-23}
       CurrentBusinessDay              Timestamp{2014-10-24}
       PreviousDailySettlementPrice    float64{68.55}
       LastAuctionPrice                float64{68.55}
       DailyTotalOffBookVolumeTraded   float64{0}
       OpenInterest                    float64{795}
       InternalLastAuctionTimestamp    Timestamp{2014-10-23 23:56:02:426}
       PriceActivityMarketTimestamp    Timestamp{2014-10-23 23:59:03:232}
       SettlementPriceDate             Timestamp{2014-10-23}
       OpenInterestDate                Timestamp{2014-10-24}
       SettlementPriceType             char{a}
       MARKET_ICE_IntervalPriceLimitsOnHold  bool{True}
```

Below is an example showing values that are no longer disseminated (in ~~crossed out red~~):

```
VU  00:00:00:092  906739870  TradingStatus=17
TE  00:00:00:088  906739870  90.44   *       *       *       *       *
VU  00:00:00:088  906739870  LastAuctionPrice=90.44
VU  18:33:58:996  906739870  DailySettlementPrice=90.65      SettlementPriceType=a
SettlementPriceDate=2014-10-10
VU  21:40:03:506  906739870  ~~TradingStatus=5~~
SI  22:00:00:073  906739870  CLOSE   90.44
TE  22:00:00:073  906739870  90.44   *       *       *       *       *       C
VU  22:00:00:073  906739870  TradingStatus=18
VU  22:00:00:073  906739870  DailyTotalOffBookVolumeTraded=0
```

2.3. Changes to the Level1 Market Data Kinematics – Pre-Open

In the Level1 Market Data Kinematics before 2014-11-17, during the Pre-Open phase, the exchange sends the `LastAuctionPrice` and the `LastPrice`. Both prices disseminate the same value, as shown below:

```
VU   05:03:00:285 614875148   TradingStatus=21
VU   05:03:19:256 614875148   LastAuctionPrice=99.4
TE   05:03:35:296 614875148   99.4    *       *       *       *       *
```

In the Level1 Market Data Kinematics after 2014-11-17, during the Pre-Open phase, the exchange no longer sends the `LastPrice`, as shown below:

```
VU   05:03:00:285 614875148   TradingStatus=21
VU   05:03:19:256 614875148   LastAuctionPrice=99.4
```

2.4. Changes to the MBL Book Depth

Effective 2014-11-17, the **MBL Book** on the ICE market data stream has a **5-level depth for Futures** and **10-level depth for Options**[*].

3. Finding the Latest Information

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

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

[*] *Options* are not included in the ICE subscription, but sold separately. For more details about this subscription, please contact S&P Capital IQ Real-Time Solutions.