

S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

LIFFE Migration to ICE LIFFE

Reference n°: 20140918 – 21906 – 22858 (UPDATE 02 TO 20140903 – 21906 – 22133)

Effective as of: 29 September 2014*

Action required from users: MANDATORY ACTION



* 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 20140918 – 21906 – 22858
September 24, 2014

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MIGRATION OF THE LIFFE MARKET DATA STREAM TO THE ICE LIFFE MARKET DATA STREAM

To reflect the changes caused by the progressive migration of the LIFFE market data stream to the ICE LIFFE market data stream, S&P Capital IQ Real-Time Solutions has decided to enhance the content of QuantFEED®. The progressive product migration follows the plan detailed below:

Table 1 Progressive ICE LIFFE migration milestones

Migration Date	Symbol	Product description
29th Sep	C	Cocoa Futures / Options
	RC	Robusta Coffee Futures / Options
	W	White Sugar Futures / Options
	T	Feed Wheat Futures / Options
6th Oct	H	Medium Gilt Futures
	G	Short Gilt Futures
	JGB	Japanese Government Bond Futures
	J	3-Month Euroyen (TIBOR) Futures
	S	3-Month Euroswiss Futures / Options
	EON	1-Month EONIA Futures
	TWS	2-Year Euro Swapnote Futures / Options
	O	5-Year Euro Swapnote Futures / Options
	P	10-Year Euro Swapnote Futures / Options
	USW	2-Year USD Swapnote Futures
	USO	5-Year USD Swapnote Futures
	USP	10-Year USD Swapnote Futures
20th Oct	R	Long Gilt Futures / Options
	U	Ultra Long Gilt Futures
	L	3-Month Sterling Futures / Options
	M	3-Month Sterling 1-Year Mid-Curve Options
	M2	3-Month Sterling 2-Year Mid-Curve Options
	M3	3-Month Sterling 3-Year Mid-Curve Options
	M4	3-Month Sterling 4-Year Mid-Curve Options
3rd Nov	I	3-Month Euro (EURIBOR) Futures / Options
	EO3	3-Month EONIA Futures
	K	Euribor 1-Year Mid-Curve Options
	K2	Euribor 2-Year Mid-Curve Options
	K3	Euribor 3-Year Mid-Curve Options
	K4	Euribor 4-Year Mid-Curve Options

Table 1 Progressive ICE LIFFE migration milestones

Migration Date	Symbol	Product description
17th Nov	Z	FTSE 100 Index Futures
	ESX	FTSE 100 Index Options
	XZ	FTSE 100 Dividend Index Futures
	YZ	FTSE 100 Declared Dividend Index Futures
	Y	FTSE 250 Index Futures
	Y2	FTSE 250 Index Futures (2 GBP)
	Q	FTSE Eurotop 100 Index Futures
	TPI	TOPIX Index Futures
	MCN	MSCI World Net TR Index Futures
	MPE	MSCI Europe Net TR Index Futures

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. QuantFEED® Technical Implementation](#)
- [3. Finding the Latest Information.](#)

1. Update Summary

Table 2 Current update summary

Notice Reference	20140918 – 21906 – 22858 ⁱ (UPDATE 02 TO 20140903 – 21906 – 22133)
Exchanges	LIFFE
Concerned MICs	XLIF
Internal Source ID	163, 172, 177, 178
Effective Date	2014-09-29*
Impact	<ul style="list-style-type: none"> • Update of the Referential Tags • Update of the Quotation Tags
Action required	MANDATORY ACTION – see sections 2.1.14 . CFICode .

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

2. QuantFEED® Technical Implementation

Effective Monday, **September 29^{*} 2014**, S&P Capital IQ Real-Time Solutions enhances the referential and quotation data to accommodate the new information disseminated on the ICE LIFFE market data stream, as described below:

- [2.1. Changes to the Referential Data](#)
- [2.2. Changes to the Quotation Data.](#)

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 LIFFE market data stream:

Table 3 Referential tags added on the ICE LIFFE market data stream

Tag Name	Numeric ID	Type
PriceCurrency	15	String
MinTradeVol	562	Float64
ProductComplex	1227	String
UnderlyingFOSInstrumentCode	9511	UInt32
OperatingMIC	9533	String
SegmentMIC	9534	String
MARKET_ICE_ContractSymbol	11600	String
MARKET_ICE_OffExchangeIncrementQty	11601	Float64
MARKET_ICE_OffExchangeIncrementPrice	11602	Float64
MARKET_ICE_SerialUnderlyingLocalCodeStr	11603	String

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

Table 4 Referential tags disseminating updated values on the ICE LIFFE market data stream

Tag Name	Numeric ID	Type
Description	107	String
SecurityType	167	String
StdMaturity	200	String
CFICode	461	String
SecuritySubType	762	String
UnderlyingFOSMarketId	9509	UInt16
UnderlyingLocalCodeStr	9510	String

* 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.

S&P Capital IQ Real-Time Solutions also **removes** the referential tags below:

Table 5 Referential tags no longer disseminated on the ICE LIFFE market data stream

Tag Name	Numeric ID	Type
MARKET_LIFFE_XDP_StrikePriceDenominator	11700	UInt32
MARKET_LIFFE_XDP_StrikePriceDecimalLocator	11701	UInt16
MARKET_LIFFE_XDP_InstrumentDenominator	11702	UInt32

2.1.1. PriceCurrency

The values of the referential tag **PriceCurrency** conveyed on the ICE LIFFE 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 6 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	<i>[Exchange specific value]</i>	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

2.1.2. MinTradeVol

The values of the referential tag **MinTradeVol** conveyed on the ICE LIFFE 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 7 MinTradeVol – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>MinTradeVol</code>	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	<i>[Exchange Specific Value]</i>	An exchange specific value , specifying the minimum traded volume.

2.1.3. ProductComplex

The values of the referential tag **ProductComplex** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to detail the type of product.

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

Table 8 ProductComplex – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>ProductComplex</code>	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 8 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 , detailing the type of product.

2.1.4. UnderlyingFOSInstrumentCode

The values of the referential tag **UnderlyingFOSInstrumentCode** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to detail the ISIN of the underlying instrument.

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

Table 9 UnderlyingFOSInstrumentCode – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>UnderlyingFOSInstrumentCode</code>	QuantFEED® tag name.
Numeric ID	9511	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	UInt32	UInt32 data type.
Format / Possible Values	<i>[Internal specific value]</i>	An <i>internal specific value</i> , detailing the ISIN of the underlying instrument.

2.1.5. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the parent MIC.

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

Table 10 OperatingMIC – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>OperatingMIC</code>	QuantFEED® tag name.
Numeric ID	9533	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	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , specifying the parent MIC.
Possible Values	IFCA	ICE Futures Canada
	IFEU	ICE Futures Europe
	IFUS	ICE Futures US

2.1.6. SegmentMIC

The values of the referential tag **SegmentMIC** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the child MIC.

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

Table 11 SegmentMIC – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>SegmentMIC</code>	QuantFEED® tag name.
Numeric ID	9534	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	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , specifying the child MIC.
Possible Values	IFLL	ICE Futures Europe - Financial Products Division
	IFLO	ICE Futures Europe - Equity Products Division
	IFLX	ICE Futures Europe - Agricultural Products Division

2.1.7. MARKET_ICE_ContractSymbol

The values of the referential tag **MARKET_ICE_ContractSymbol** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the symbol of the contract.

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

Table 12 MARKET_ICE_ContractSymbol – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	MARKET_ICE_ContractSymbol	QuantFEED® tag name.
Numeric ID	11600	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 / Possible Values	<i>[Exchange specific value]</i>	An exchange specific value , specifying the symbol of the contract.

2.1.8. MARKET_ICE_OffExchangeIncrementQty

The values of the referential tag **MARKET_ICE_OffExchangeIncrementQty** conveyed on the ICE LIFFE 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 13 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	<i>[Exchange specific value]</i>	An exchange specific value , specifying the increment quantity of the OTC.

2.1.9. MARKET_ICE_OffExchangeIncrementPrice

The values of the referential tag **MARKET_ICE_OffExchangeIncrementPrice** conveyed on the ICE LIFFE 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 14 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	<i>[Exchange specific value]</i>	An exchange specific value , specifying the tick size of the OTC.

2.1.10. MARKET_ICE_SerialUnderlyingLocalCodeStr

The values of the referential tag **MARKET_ICE_SerialUnderlyingLocalCodeStr** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the LocalCodeStr of the underlying instrument with different maturity.

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

Table 15 MARKET_ICE_OffExchangeIncrementPrice – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	MARKET_ICE_SerialUnderlyingLocalCodeStr	QuantFEED® tag name.
Numeric ID	11603	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	<i>[Exchange specific value]</i>	An exchange specific value , specifying the LocalCodeStr of the underlying instrument with different maturity.

2.1.11. Description

The values of the referential tag **Description** conveyed on the ICE LIFFE 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 16 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

Table 16 Description – technical implementation in QuantFEED® (Continued)

Component	Value		Description
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.

2.1.12. SecurityType

The values of the referential tag **Security Type** conveyed on the ICE LIFFE 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:

Table 17 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
	OPT	Options

2.1.13. StdMaturity

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

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

Table 18 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	<i>[Exchange specific value]</i>	An exchange specific value , specifying the standard maturity of a security.

2.1.14. CFICode

The values of the referential tag **CFI Code** conveyed on the ICE LIFFE 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 19 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	<i>[Exchange specific value]</i>	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
	FCXPSX	Futures - Commodities Futures - Physical - Standardized
	FFCXXM	Futures - Financial Futures - Currencies - Other
	FFCXXS	Futures - Financial Futures - Currencies - Spread
	FFCXXX	Futures - Financial Futures - Currencies
	FFDXXM	Futures - Financial Futures - Debt Instruments - Other
	FFDXXS	Futures - Financial Futures - Debt Instruments - Spread
	FFDXXX	Futures - Financial Futures - Debt Instruments

Table 19 CFICode – technical implementation in QuantFEED® (Continued)

Component	Value	Description
Possible Values	FFIXXS	Futures - Financial Futures - Indices - Spread
	FFIXXX	Futures - Financial Futures - Indices
	FFMXXS	Futures - Financial Futures - Other - Spread
	FFMXXX	Futures - Financial Futures - Other
	FFNXXM	Futures - Financial Futures - Interest Rates - Other
	FFNXXS	Futures - Financial Futures - Interest Rates - Spread
	FFNXXX	Futures - Financial Futures - Interest Rates
	FFSXXX	Futures - Financial Futures - Stock Equities
	FFWXXS	Futures - Financial Futures - Swaps - Spread
	FFWXXX	Futures - Financial Futures - Swaps
	FFXCSX	Futures - Financial Futures - Cash - Standardized
	FFXPSX	Futures - Financial Futures - Physical - Standardized
	MRXXXX	Other - Referential Instruments
	MXXXXX	Other Instruments
	OCAFXX	Options - Call Options - American - Futures
	OCASXX	Options - Call Options - American - Stock Equities
	OCAXPS	Options - Call Options - American - Physical - Standardized
	OCEFXX	Options - Call Options - European - Futures
	OCEIXX	Options - Call Options - European - Indices
	OCESXX	Options - Call Options - European - Stock Equities
	OCEXCS	Options - Call Options - European - Cash - Standardized
	OCEXPS	Options - Call Options - European - Physical - Standardized
	OCXSXX	Options - Call Options - Stock Equities
	OCXXXX	Options - Call Options
	OMXXXX	Options - Other
	OPAFXX	Options - Put Options - American - Futures
	OPASXX	Options - Put Options - American - Stock Equities
	OPAXPS	Options - Put Options - American - Physical - Standardized
	OPEFXX	Options - Put Options - European - Futures
	OPEIXX	Options - Put Options - European - Indices
	OPESXX	Options - Put Options - European - Stock Equities
	OPEXCS	Options - Put Options - European - Cash - Standardized
	OPEXPS	Options - Put Options - European - Physical - Standardized
	OPXSXX	Options - Put Options - Stock Equities
	OPXXXX	Options - Put Options

2.1.15. SecuritySubType

The values of the referential tag **SecuritySubType** conveyed on the ICE LIFFE 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:

Table 20 SecuritySubType – technical implementation in QuantFEED®

Component	Value		Description	
Tag Name	SecuritySubType		QuantFEED® tag name.	
Numeric ID	762		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	"Future" + Contract Term	Contract Term has one of the following values: <ul style="list-style-type: none"> • Day • Week • Balance_of_Month • Month • Quarter • Serial • Season • Balance_of_Week • Calendar_Year • Variable • Custom • Same_Day • Next_Day • Weekly • Pack • Bundle Example: Future/Month	
	Future Spread	Retrieved from the description provided by the exchange.	FEC Display Name	Strategy Name
			BALMOSPR	Balmo over Month
			BLUPACK	Pack (Blue)
			BNDL	Bundle (no color)
			BNDLY10	Bundle (10yr)
			BNDLY2	Bundle (2yr)
			BNDLY3	Bundle (3yr)
			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

Table 20 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.	CALLCONDR	Call Condor
			CALLDIAGSP	Diagonal Call Spread
			CALLFLY	Call Butterfly
			CALLLADR	Call Ladder
			CALLLADR	Hedged Call Ladder
			CALLLADR	Hedged Call Ladder
			CALLSPR	Call Spread
			CALLSPR	Call Spread versus Sell Put
			CALLSPR	Hedged Call Spread
			CALLX	Hedged Call
			CALSTRD	Straddle Spread
			CALSTRD	Hedged Straddle Spread
			CALSTRD	Hedged Straddle Spread
			CALSTRD	Hedged Straddle Spread
			CALSTRD	Hedged Straddle Spread
			CCONDR	Hedged Call Condor
			CCONDR	Hedged Call Condor
			CDIAGX	Hedged Diagonal Call Spread
			CDIAGX	Hedged Diagonal Call Spread
			CFLYX	Hedged Call Butterfly
			CFLYX	Hedged Call Butterfly
			COMBOSPR	Combo Spread
			COPPACK	Pack (Copper)
			CRACK	CRACK Spread
			CSTRP	Call Strip
			CUST	Custom
			FCAL	Futures Calendar Spread
			FCONDR	Futures Condor
			FENCECALL	Fence (to the call)
			FENCECALL	Hedged Fence (to the call)
			FENCEPUT	Fence (to the put)
			FENCEPUT	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

Table 20 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.	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 Butterfly
			PFLYX	Hedged Put Butterfly
			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
			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

Table 20 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
			RATIOCSRX	Hedged 1x2 Call Spread
			RATIOPSRX	1x2 Put Spread
			RATIOPSRX	Hedged 1x2 Put Spread
			RATIOPSRX	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	
	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	<i>[Exchange Specific value]</i>		An <i>exchange specific value</i> , detailing the subtype of a security.	

2.1.16. UnderlyingFOSMarketId

The values of the referential tag **UnderlyingFOSMarketId** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the market identifier.

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

Table 21 UnderlyingFOSMarketId – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	UnderlyingFOSMarketId	QuantFEED® tag name.
Numeric ID	9509	QuantFEED® unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	UInt16	UInt16 data type.
Format	<i>[Internal specific value]</i>	An <i>internal specific value</i> , specifying the market identifier.
Possible Values	XLIF	ICE LIFFE

2.1.17. UnderlyingLocalCodeStr

The values of the referential tag **UnderlyingLocalCodeStr** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Referential* to specify the ISIN of the underlying instrument.

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

Table 22 UnderlyingLocalCodeStr – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	UnderlyingLocalCodeStr	QuantFEED® tag name.
Numeric ID	9510	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 / Possible Values	<i>[Exchange specific value]</i>	An <i>exchange specific value</i> , specifying the ISIN of the underlying instrument.

Referential Data Sample

Below is an example of the referential tags implementation before and after the upgrade (newly added tags are in **green**, tags disseminating updated values are in **blue**, and removed tags are in ~~crossed-out red~~):

Referential Data before 2014-09-29

```

instr # 293/402070 = 614867606
  PriceCurrency      string{GBP}
  Symbol             string{VOD}
  Description         string{Call 240 on Vodafone Group plc STND OPT}
  SecurityType       string{OPT}
  StrikePrice        float64{240}
  FOSMarketId        XLIF
  ContractMultiplier float64{1000}
  CFICode            string{0CXXXX}
  InternalCreationDate Timestamp{2014-09-03 23:36:26:401}
  InternalModificationDate Timestamp{2014-09-03 23:36:26:401}
  InternalSourceId    uint16{178}
  InternalAggregationId uint16{178}
  LocalCodeStr        string{00VOD160600240C}
  PriceIncrement_static float64{0}
  UnderlyingFOSMarketId XLON
  UnderlyingLocalCodeStr string{GB00BH4HKS39}
  MaturityYear         uint16{2016}
  MaturityMonth        uint8{6}
  MARKET_LIFFE_XDP_StrikePriceDenominator uint32{1}
  MARKET_LIFFE_XDP_StrikePriceDecimalLocator uint16{0}
  MARKET_LIFFE_XDP_InstrumentDenominator uint32{1000}

```

Referential Data after 2014-09-29

```
instr # 293/402171 = 6158846206
  PriceCurrency      string{GBP}
  Symbol             string{VOD}
  Description         string{Option on Vodafone Group Plc - STND Options - ICEU -
  Sep14}
  SecurityType       string{OOF}
  StrikePrice        float64{203}
  FOSMarketId        XLIF
  CFICode            string{OCAFX}
  MinTradeVol        float64{1}
  SecuritySubType     string{Option on Future/Month}
  ProductComplex     string{VOD 140919c00203000}
  InternalCreationDate Timestamp{2014-09-03 07:42:48:784}
  InternalModificationDate Timestamp{2014-09-03 07:42:48:784}
  InternalEntitlementId string{ICA}
  InternalMagic       string{204}
  LocalCodeStr        string{91248916}
  PriceIncrement_static float64{0.25}
  UnderlyingFOSMarketId uint32{XLIF}
  UnderlyingLocalCodeStr string{5041635}
  UnderlyingFOSInstrumentCode uint32{1011580198}
  MaturityYear        uint16{2014}
  MaturityMonth       uint8{9}
  MaturityDay         uint8{19}
  OperatingMIC        string{IFEU}
  SegmentMIC          string{IFLO}
  MARKET_ICE_ContractSymbol string{VOD FMU0014_OMCA0000002030091914}
  MARKET_ICE_SerialUnderlyingLocalCodeStr string{5041631}
```

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 LIFFE market data stream:

Table 23 Quotation tags added on the ICE LIFFE market data stream

Tag Name	Numeric ID	Type
DailySettlementPrice	9133	Float64
OpenInterest	9150	Float64
SettlementPriceDate	9380	Timestamp
OpenInterestDate	9382	Timestamp
SettlementPriceType	9383	Char
MARKET_ICE_IntervalPriceLimitsOnHold	14503	Bool

2.2.1. DailySettlementPrice

The values of the quotation tag **DailySettlementPrice** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Other Values* to specify the value of the daily settlement price:

- 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 tag `DailySettlementPrice` is described in the table below:

Table 24 `DailySettlementPrice` – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>DailySettlementPrice</code>	QuantFEED® tag name.
Numeric ID	9133	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	<i>[Exchange Specific Value]</i>	An exchange specific value , specifying the value of the daily settlement price.

2.2.2. OpenInterest

The values of the quotation tag **OpenInterest** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security:

- 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 `openInterest` is described in the table below:

Table 25 `OpenInterest` – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>OpenInterest</code>	QuantFEED® tag name.
Numeric ID	9150	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	<i>[Exchange Specific Value]</i>	An exchange specific value , detailing the amount of derivative contracts that have not been settled in the immediately previous time period for a specific underlying security.

2.2.3. SettlementPriceDate

The values of the quotation tag **SettlementPriceDate** conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the date of the settlement price:

- 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 `SettlementPriceDate` is described in the table below:

Table 26 `SettlementPriceDate` – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>SettlementPriceDate</code>	QuantFEED® tag name.
Numeric ID	9380	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	Timestamp	Timestamp data type.
Format / Possible Values	<i>[Exchange Specific Value]</i>	An exchange specific value , indicating the date of the settlement price.

2.2.4. OpenInterestDate

The values of the quotation tag `OpenInterestDate` conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the date of the derivative contracts that have not been settled in the immediately previous time period for a specific underlying security:

- 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 tag `OpenInterestDate` is described below:

Table 27 `OpenInterestDate` – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>OpenInterestDate</code>	QuantFEED® tag name.
Numeric ID	9382	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	Timestamp	Timestamp data type.
Format / Possible Values	<i>[Exchange Specific Value]</i>	An exchange specific value , indicating the date of the derivative contracts that have not been settled in the immediately previous time period for a specific underlying security.

2.2.5. SettlementPriceType

The values of the quotation tag `SettlementPriceType` conveyed on the ICE LIFFE market data stream are disseminated via QuantFEED® data stream in *Other Values* to indicate the type of settlement price:

- 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 SettlementPriceType is described in the following table (the values disseminated as of 2014-09-29 are highlighted in green):

Table 28 SettlementPriceType – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	SettlementPriceType	QuantFEED® tag name.
Numeric ID	9383	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	Char	Timestamp data type.
Format	<i>[Exchange Specific Value]</i>	An exchange specific value , indicating the type of settlement price.
Possible Values	a	Official – Explicit Official Daily Settlement Price, as distributed by the exchange.
	b	Preliminary – Settlement Price subject to change until the Official Daily Settlement Price is published.
	z	Manual – Settlement Price disseminated manually (in case of a correction).
	0	Undefined

2.2.6. MARKET_ICE_IntervalPriceLimitsOnHold

The values of the quotation tag MARKET_ICE_IntervalPriceLimitsOnHold conveyed on the ICE LIFFE 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 29 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	<i>[Exchange Specific Value]</i>	An exchange specific value , indicating whether an instrument is in an IPL hold or not.
Possible Values	True	IPL hold

Quotation Data Sample

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

```
InstrumentStatusL1
-- 293/753812
    BID: 113.47      0      *NO ORDER*
    ASK: 114         0      *NO ORDER*
    LastPrice                float64{114}
    LastTradeQty              float64{5}
    DailyHighPrice            float64{114}
    DailyLowPrice             float64{113.49}
    DailyTotalVolumeTraded    float64{202}
    DailyTotalAssetTraded     float64{22641.4}
    LastTradePrice            float64{114}
    LastTradeTimestamp         Timestamp{2014-10-17 14:13:36:687}
    InternalDailyOpenTimestamp Timestamp{2014-10-17 12:24:43:611}
    InternalDailyCloseTimestamp Timestamp{2014-10-17 12:26:53:240}
    InternalPriceActivityTimestamp Timestamp{2014-10-17 12:26:53:240}
    TradingStatus             18=NotAvailableForTrading
    SessionVWAPPrice          float64{113.77}
    DailyOpeningPrice          float64{113.49}
    DailyClosingPrice          float64{114}
    DailySettlementPrice       float64{113.49}
    PreviousDailyTotalVolumeTraded float64{0}
    PreviousDailyTotalAssetTraded float64{0}
    PreviousDailyClosingPrice  float64{113.49}
    PreviousBusinessDay        Timestamp{2014-10-16}
    CurrentBusinessDay          Timestamp{2014-10-17}
    PreviousDailySettlementPrice float64{113.49}
    OpenInterest               float64{135}
    LastAuctionPrice           float64{113.49}
    DailyTotalOffBookVolumeTraded float64{0}
    InternalLastAuctionTimestamp Timestamp{2014-10-17 12:23:41:129}
    PriceActivityMarketTimestamp Timestamp{2014-10-17 16:00:00:107}
    SettlementPriceDate         Timestamp{2014-10-17}
    OpenInterestDate            Timestamp{2014-10-17}
    SettlementPriceType          char{a}
    MARKET_ICE_IntervalPriceLimitsOnHold bool{True}
```

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>.