S&P Capital IQ Real-Time Solutions

QuantFEED® Developer's Notice

LIFFE Migration to ICE LIFFE

Reference n°: 20140903 – 21906 – 22133

Effective as of: Q4 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 20140903 – 21906 – 22133
September 05, 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	20140903 – 21906 – 22133
Exchanges	LIFFE
Concerned MICs	XLIF
Internal Source ID	163, 172, 177, 178
Effective Date	**Q4 2014***
Impact	• Update of the Referential Tags
Action required	**MANDATORY ACTION** – see sections 2.1.12. CFICode.

2. QuantFEED® Technical Implementation

Effective Monday, **Q4* 2014,** S&P Capital IQ Real-Time Solutions enhances the referential, quotation and quotation context data to accommodate the new information disseminated on the ICE LIFFE market data stream, as described below:

- 2.1. Changes to the Referential Data.

* 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 LIFFE market data stream:

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

Tag Name	Numeric ID	Type
`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

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
`ContractMultiplier`	231	Float64
`MARKET_LIFFE_XDP_StrikePriceDenominator`	11700	UInt32
`MARKET_LIFFE_XDP_StrikePriceDecimalLocator`	11701	UInt16
`MARKET_LIFFE_XDP_InstrumentDenominator`	11702	UInt32

2.1.1. 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 6 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.
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.

2.1.2. 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 7 UnderlyingFOSInstrumentCode – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`UnderlyingFOSInstrumentCode`	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	*`[Internal Specific Value]`*	An ***internal specific value***, detailing the ISIN of the underlying instrument.

2.1.3. 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 8 OperatingMIC – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`OperatingMIC`	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	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the parent MIC.
Possible Values	`IFCA`	ICE Futures Canada
	`IFEU`	ICE Futures Europe
	`IFUS`	ICE Futures US

2.1.4. 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 9 SegmentMIC – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	`SegmentMIC`	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	*`[Exchange Specific Value]`*	An ***exchange specific value***, 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

2.1.5. 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 10 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the symbol of the contract.

2.1.6. 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 11 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.

2.1.7. 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 12 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.

2.1.8. 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 13 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	*`[Exchange Specific Value]`*	An ***exchange specific value***, specifying the `LocalCodeStr` of the underlying instrument with different maturity.

2.1.9. 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 14 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.

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

Component	Value		Description
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`
	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.

2.1.10. 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 15 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

2.1.11. 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 16 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.

2.1.12. 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:

Table 17 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 / Possible Values	*`[Exchange Specific Value]`*	An ***exchange specific value***, detailing the standardized identification code of an instrument.

2.1.13. 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 18 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"><code>SecuritySubType</code></td><td colspan="2">QuantFEED® tag name.</td></tr>
<tr><td>Numeric ID</td><td colspan="2"><code>762</code></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"><code>String</code></td><td colspan="2">String data type.</td></tr>
<tr><td rowspan="20">Format</td><td>Future</td><td><code>“Future” + Contract Term</code></td><td colspan="2"><code>Contract Term</code> has one of the following values:
• <code>Day</code>
• <code>Week</code>
• <code>Balance_of_Month</code>
• <code>Month</code>
• <code>Quarter</code>
• <code>Serial</code>
• <code>Season</code>
• <code>Balance_of_Week</code>
• <code>Calendar_Year</code>
• <code>Variable</code>
• <code>Custom</code>
• <code>Same_Day</code>
• <code>Next_Day</code>
• <code>Weekly</code>
• <code>Pack</code>
• <code>Bundle</code>

Example: <code>Future/Month</code></td></tr>
<tr><td rowspan="19">Future Spread</td><td rowspan="19"><code>Retrieved from the description provided by the exchange.</code></td><td>FEC Display Name</td><td>Strategy Name</td></tr>
<tr><td><code>BALMOSPR</code></td><td>Balmo over Month</td></tr>
<tr><td><code>BLUPACK</code></td><td>Pack (Blue)</td></tr>
<tr><td><code>BNDL</code></td><td>Bundle (no color)</td></tr>
<tr><td><code>BNDLY10</code></td><td>Bundle (10yr)</td></tr>
<tr><td><code>BNDLY2</code></td><td>Bundle (2yr)</td></tr>
<tr><td><code>BNDLY3</code></td><td>Bundle (3yr)</td></tr>
<tr><td><code>BNDLY4</code></td><td>Bundle (4yr)</td></tr>
<tr><td><code>BNDLY5</code></td><td>Bundle (5yr)</td></tr>
<tr><td><code>BNDLY6</code></td><td>Bundle (6yr)</td></tr>
<tr><td><code>BNDLY7</code></td><td>Bundle (7yr)</td></tr>
<tr><td><code>BNDLY8</code></td><td>Bundle (8yr)</td></tr>
<tr><td><code>BNDLY9</code></td><td>Bundle (9yr)</td></tr>
<tr><td><code>BOX</code></td><td>Box</td></tr>
<tr><td><code>CALL</code></td><td>Call</td></tr>
<tr><td><code>CALL3WAY</code></td><td>3-Way: Straddle versus a Call</td></tr>
<tr><td><code>CALLCALSPR</code></td><td>Call Calendar Spread</td></tr>
<tr><td><code>CALLCALX</code></td><td>Hedged Call Calendar</td></tr>
<tr><td><code>CALLCALX</code></td><td>Hedged Call Calendar</td></tr>
</table>

Table 18 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**
			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
			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)

Table 18 SecuritySubType – technical implementation in QuantFEED® (Continued)

Component	Value		Description	
			FEC Display Name	**Strategy Name**
			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
Format	**Future Spread**	`Retrieved from the description provided by the exchange.`	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
			PUTCONDR	Put condor
			PUTDIAGSP	Diagonal Put Spread
			PUTFLY	Put Butterfly
			PUTLADR	Put Ladder
			PUTLADRX	Hedged Put Ladder
			PUTLADRX	Hedged Put Ladder
			PUTSPR	Put Spread

Table 18 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**
			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	
	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.	

2.1.14. 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 19 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	*`[Internal Specific Value]`*	An ***internal specific value***, specifying the market identifier.
Possible Values	`XLIF`	ICE LIFFE

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 Q4 2014

```
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{OCXXXX}
    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{OOVOD160600240C}
    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 Q4 2014

```
instr # 293/402171 = 6158846206
    PriceCurrency                 string{GBP}
    Symbol                        string{VOD}
    Description                   string{Option on Vodafone Group Plc - STND Options - ICEU -
Sep14}
    SecurityType                  string{OPT}
    StrikePrice                   float64{203}
    FOSMarketId                   XLIF
    CFICode                       string{OCAFXX}
    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}
```

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.