

S&P Capital IQ Real-Time Solutions

FeedOS™ Developer's Notice

ADH – Feed Update

Reference n°: 20150113 – 21888 – 24041

Effective as of: Q1 2015*

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
FeedOS™ Developer's Notice: ADH – Feed Update
Reference 20150113 – 21888 – 24041
February 02, 2015

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UPDATE OF THE ADH MARKET DATA STREAM

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

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

1. Update Summary

Table 1 Current update summary

Notice Reference	20150113 – 21888 – 24041
Exchanges	ADH
Concerned MICs	XWBO, XBUD
Internal Source ID	28, 230, 231, 232, 233, 234
Effective Date	Q1 2015*
Impact	<ul style="list-style-type: none">• Update of the Referential Tags• Update of the Quotation Tags
Action required	MANDATORY ACTION - see sections: <ul style="list-style-type: none">• 2.1.12. SecurityType• 2.1.13. CFICode.

2. FeedOS Technical Implementation

Effective **Q1 2015**^{*}, S&P Capital IQ Real-Time Solutions enhances the referential and quotation data to accommodate the new information disseminated on the ADH 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 ADH market data stream:

Table 2 Referential tags added on the ADH market data stream

Tag Name	Numeric ID	Type
SecurityGroup	1151	String
CouponRate	223	Float64
CouponPaymentDate	224	UInt32
MarketSegmentID	1300	String
MarketSegmentDesc	1396	String
MaturityYear	9512	Int16
MaturityMonth	9513	UInt8
MaturityDay	9514	UInt8
OperatingMIC	9533	String
SegmentMIC	9534	String
FaceValue	9565	Float64

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

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

Tag Name	Numeric ID	Type
SecurityType	167	String
CFICode	461	String

2.1.1. SecurityGroup

The values of the referential tag **Security Group** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to indicate an exchange specific name assigned to a group of related securities which may be concurrently affected by market events and actions.

* This is the proposed day for the update of the standard version of the feed handler. For dedicated feed handlers, the date and Source IDs may differ. For the actual day when the changes to your custom feed handler will take effect, please contact your FeedOS™ project manager.

FeedOS implementation of the tag SecurityGroup is described in the following table:

Table 4 SecurityGroup – technical implementation in FeedOS

Component	Value	Description
Tag Name	SecurityGroup	FeedOS tag name.
Numeric ID	1151	FeedOS 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 percentile value , indicating an exchange specific name assigned to a group of related securities which may be concurrently affected by market events and actions.

2.1.2. CouponRate

The values of the referential tag **CouponRate** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the stated percentage rate of interest for a bond, note or fixed income security.

FeedOS implementation of the tag CouponRate is described in the table below:

Table 5 CouponRate – technical implementation in FeedOS

Component	Value	Description
Tag Name	CouponRate	FeedOS tag name.
Numeric ID	223	FeedOS 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 Value	<i>[Exchange Specific value]</i>	An exchange specific value , specifying the stated percentage rate of interest for a bond, note or fixed income security.

2.1.3. CouponPaymentDate

The values of the referential tag **CouponPaymentDate** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the date when the interest for a bond, note or fixed income security is to be paid.

FeedOS implementation of the tag CouponPaymentDate is described in the table below:

Table 6 CouponPaymentDate – technical implementation in FeedOS

Component	Value	Description
Tag Name	CouponPaymentDate	FeedOS tag name.
Numeric ID	224	FeedOS 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 Value	<i>[Exchange Specific value]</i>	An exchange specific value , specifying the date when the interest for a bond, note or fixed income security is to be paid.

2.1.4. MarketSegmentID

The values of the referential tag **MarketSegmentID** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to detail the ID of the market segment.

FeedOS implementation of the values currently available for the tag MarketSegmentID is described below:

Table 7 MarketSegmentID – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	MarketSegmentID	FeedOS tag name.
Numeric ID	1300	FeedOS 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 , detailing the ID of the market segment.

2.1.5. MarketSegmentDesc

The values of the referential tag **MarketSegmentDesc** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to describe the market segment.

FeedOS implementation of the values currently available for tag MarketSegmentDesc is described below:

Table 8 MarketSegmentDesc – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	MarketSegmentDesc	FeedOS tag name.
Numeric ID	1396	FeedOS unique ID disseminated on 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 , describing the market segment.

2.1.6. MaturityYear

The values of the referential tag **MaturityYear** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the year on which the principal is required to be repaid.

FeedOS implementation of the tag MaturityYear is described in the table below:

Table 9 MaturityYear – technical implementation in FeedOS

Component	Value	Description
Tag Name	MaturityYear	FeedOS tag name.
Numeric ID	9512	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Int16	Int16 data type.
Format / Possible Value	<i>[Exchange specific value]</i>	An exchange specific value , specifying the year on which the principal is required to be repaid.

2.1.7. MaturityMonth

The values of the referential tag **MaturityMonth** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the month on which the principal is required to be repaid.

FeedOS implementation of the tag **MaturityMonth** is described in the table below:

Table 10 MaturityMonth – technical implementation in FeedOS

Component	Value	Description
Tag Name	MaturityMonth	FeedOS tag name.
Numeric ID	9513	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	UInt8	UInt8 data type.
Format / Possible Value	<i>[Exchange specific value]</i>	An exchange specific value , specifying the month on which the principal is required to be repaid.

2.1.8. MaturityDay

The values of the referential tag **MaturityDay** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the day on which the principal is required to be repaid.

FeedOS implementation of the tag **MaturityDay** is described in the table below:

Table 11 MaturityDay – technical implementation in FeedOS

Component	Value	Description
Tag Name	MaturityDay	FeedOS tag name.
Numeric ID	9514	FeedOS unique ID disseminated on the S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	UInt8	UInt8 data type.
Format / Possible Value	<i>[Exchange specific value]</i>	An exchange specific value , specifying the day on which the principal is required to be repaid.

2.1.9. OperatingMIC

The values of the referential tag **OperatingMIC** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the parent MIC.

FeedOS implementation of the tag **OperatingMIC** is described in the table below:

Table 12 OperatingMIC – technical implementation in FeedOS

Component	Value	Description
Tag Name	OperatingMIC	FeedOS tag name.
Numeric ID	9533	FeedOS 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 parent MIC.

Table 12 OperatingMIC – technical implementation in FeedOS (Continued)

Component	Value	Description
Possible Values	XBUD	Budapest
	XLJU	Ljubljana Stock Exchange
	XPRA	Prague Cash and Index Market
	XWBO	Vienna

2.1.10. SegmentMIC

The values of the referential tag **SegmentMIC** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the child MIC.

FeedOS implementation of the tag SegmentMIC is described in the table below:

Table 13 SegmentMIC – technical implementation in FeedOS

Component	Value	Description
Tag Name	SegmentMIC	FeedOS tag name.
Numeric ID	9534	FeedOS 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 child MIC.
Possible Values	XVIE	Vienna

2.1.11. FaceValue

The values of the referential tag **FaceValue** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Referential* to specify the amount of money stated on the face of a note, bond or stock.

FeedOS implementation of the tag FaceValue is detailed in the table below:

Table 14 Description – technical implementation in FeedOS

Component	Value	Description
Tag Name	FaceValue	FeedOS tag name.
Numeric ID	9565	FeedOS 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 amount of money stated on the face of a note, bond or stock.

2.1.12. SecurityType

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

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

Table 15 SecurityType – technical implementation in FeedOS

Component	Value	Description
Tag Name	SecurityType	FeedOS tag name.
Numeric ID	167	FeedOS 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> , detailing the type of security.
Possible Values	CS	Common Stocks
	ETF	Exchange-Traded Funds
	FUT	Futures
	GO	General Obligations
	INDEX	Index
	MF	Mutual Funds
	NONE	None
	OPT	Options
	PS	Preferred Stocks
	WAR	Warrants

2.1.13. CFICode

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

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

Table 16 CFICode – technical implementation in FeedOS

Component	Value	Description
Tag Name	CFICode	FeedOS tag name.
Numeric ID	461	FeedOS 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> , detailing the standardized identification code of an instrument.
Possible Values	DBFGFR	Debts - Bonds - Fixed Rate - Guaranteed - Fixed Maturity - Registered
	DBFSCB	Debts - Bonds - Fixed Rate - Secured - Fixed Maturity with Put - Bearer
	DBFSDB	Debts - Bonds - Fixed Rate - Secured - Fixed Maturity with Call - Bearer
	DBFSFB	Debts - Bonds - Fixed Rate - Secured - Fixed Maturity - Bearer
	DBFSGB	Debts - Bonds - Fixed Rate - Secured - Fixed Maturity with Call - Bearer

Table 16 CFICode – technical implementation in FeedOS (Continued)

Component	Value	Description
	DBFTAB	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Amortization Plan - Bearer
Possible Values	DBFTBB	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Amortization Plan with Call - Bearer
	DBFTFB	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Fixed Maturity - Bearer
	DBFTFR	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Fixed Maturity - Registered
	DBFTGB	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Fixed Maturity with Call - Bearer
	DBFTTB	Debts - Bonds - Fixed Rate - Government/Treasury Guaranteed - Amortization Plan with Put - Bearer
	DBFUAB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Amortization Plan - Bearer
	DBFUBB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Amortization Plan with Call - Bearer
	DBFUCB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity with Put - Bearer
	DBFUFB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity - Bearer
	DBFUFR	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity - Registered
	DBFUGB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity with Call - Bearer
	DBFUGR	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity with Call - Registered
	DBFUQB	Debts - Bonds - Fixed Rate - Unsecured/Unguaranteed - Perpetual with Call - Bearer
	DBVGFB	Debts - Bonds - Variable - Guaranteed - Fixed Maturity - Bearer
	DBVGQB	Debts - Bonds - Variable - Guaranteed - Perpetual with Call - Bearer
	DBVSCB	Debts - Bonds - Variable - Secured - Fixed Maturity with Put - Bearer
	DBVSFB	Debts - Bonds - Variable - Guaranteed - Fixed Maturity - Bearer
	DBVSGB	Debts - Bonds - Variable - Guaranteed - Fixed Maturity with Call - Bearer
	DBVTAB	Debts - Bonds - Variable - Government/Treasury Guaranteed - Amortization Plan - Bearer
	DBVTAR	Debts - Bonds - Variable - Government/Treasury Guaranteed - Amortization Plan - Registered
	DBVTBB	Debts - Bonds - Variable - Government/Treasury Guaranteed - Amortization Plan with Call - Bearer
	DBVTFB	Debts - Bonds - Variable - Government/Treasury Guaranteed - Fixed Maturity - Bearer
Possible Values	DBVTGB	Debts - Bonds - Variable - Government/Treasury Guaranteed - Fixed Maturity with Call - Bearer
	DBVTLB	Debts - Bonds - Variable - Government/Treasury Guaranteed - Amortization Plan with Put and Call - Bearer

Table 16 CFICode – technical implementation in FeedOS (Continued)

Component	Value	Description
	DBVUAB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Amortization Plan - Bearer
	DBVUBB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Amortization Plan with Call - Bearer
	DBVUCB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Fixed Maturity with Put - Bearer
	DBVUFB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Fixed Maturity - Bearer
	DBVUGB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Fixed Maturity with Call - Bearer
	DBVUGR	Debts - Bonds - Variable - Unsecured/Unguaranteed - Fixed Maturity with Call - Registered
	DBVUQB	Debts - Bonds - Variable - Unsecured/Unguaranteed - Perpetual with Call - Bearer
	DBVUQR	Debts - Bonds - Variable - Unsecured/Unguaranteed - Perpetual with Call - Registered
	DBXUFB	Debts - Bonds - Undefined - Unsecured/Unguaranteed - Fixed Maturity - Bearer
	DBXXXX	Debts - Bonds
	DBZSFB	Debts - Bonds - Zero Rate - Secured - Fixed Maturity - Bearer
	DBZSGB	Debts - Bonds - Zero Rate - Secured - Fixed Maturity with Call - Bearer
	DBZTFB	Debts - Bonds - Zero Rate - Government/Treasury Guaranteed - Fixed Maturity - Bearer
	DBZTGB	Debts - Bonds - Zero Rate - Government/Treasury Guaranteed - Fixed Maturity with Call - Bearer
	DBZUAB	Debts - Bonds - Zero Rate - Unsecured/Unguaranteed - Amortization Plan - Bearer
	DBZUDB	Debts - Bonds - Zero Rate - Unsecured/Unguaranteed - Fixed Maturity with Put and Call - Bearer
	DBZUFB	Debts - Bonds - Zero Rate - Unsecured/Unguaranteed - Fixed Maturity - Bearer
	DBZUGB	Debts - Bonds - Zero Rate - Unsecured/Unguaranteed - Fixed Maturity with Call - Bearer
	DBZUQB	Debts - Bonds - Zero Rate - Unsecured/Unguaranteed - Perpetual with Call - Bearer
	DCFGAB	Debts - Convertible Bonds - Fixed Rate - Guaranteed - Amortization Plan - Bearer
	DCFGFB	Debts - Convertible Bonds - Fixed Rate - Guaranteed - Fixed Maturity - Bearer
	DCFGGB	Debts - Convertible Bonds - Fixed Rate - Guaranteed - Fixed Maturity with Call - Bearer
	DCFTFB	Debts - Convertible Bonds - Fixed Rate - Government/Treasury Guaranteed - Fixed Maturity - Bearer
	DCFTGB	Debts - Convertible Bonds - Fixed Rate - Government/Treasury Guaranteed - Fixed Maturity with Call - Bearer
	DCFUCB	Debts - Convertible Bonds - Fixed Rate - Unsecured/Unguaranteed - Fixed Maturity with Put - Bearer

Table 16 CFICode – technical implementation in FeedOS (Continued)

Component	Value	Description
	DCFUDB	Debts - Convertible Bonds - Fixed Rate - Unsecured/Unsecured - Fixed Maturity with Put and Call - Bearer
	DCFUFB	Debts - Convertible Bonds - Fixed Rate - Unsecured/Unsecured - Fixed Maturity - Bearer
	DCFUGB	Debts - Convertible Bonds - Fixed Rate - Unsecured/Unsecured - Fixed Maturity with Call - Bearer
	DCVGFB	Debts - Convertible Bonds - Variable - Guaranteed - Fixed Maturity - Bearer
	DCVGGB	Debts - Convertible Bonds - Variable - Guaranteed - Fixed Maturity with Call - Bearer
Possible Values	DCVSFB	Debts - Convertible Bonds - Variable - Secured - Fixed Maturity - Bearer
	DCVTFB	Debts - Convertible Bonds - Variable - Government/Treasury Guaranteed - Fixed Maturity - Bearer
	DCVUFB	Debts - Convertible Bonds - Variable - Unsecured/Unsecured - Fixed Maturity - Bearer
	DCVUGB	Debts - Convertible Bonds - Variable - Unsecured/Unsecured - Fixed Maturity with Call - Bearer
	DCXXXX	Debts - Convertible Bonds
	DCZUQB	Debts - Convertible Bonds - Zero Rate - Unsecured/Unsecured - Perpetual with Call - Bearer
	DMFUFB	Debts - Others - Fixed Rate - Unsecured/Unsecured - Fixed Maturity - Bearer
	DMVUFB	Debts - Others - Variable - Unsecured/Unsecured - Fixed Maturity - Bearer
	DMXXXX	Debts - Others
	DMZUFB	Debts - Others - Zero Rate - Unsecured/Unsecured - Fixed Maturity - Bearer
	DMZUQB	Debts - Others - Zero Rate - Unsecured/Unsecured - Perpetual with Call - Bearer
	DTFUGB	Debts - Medium-Terms Notes - Fixed Rate - Unsecured/Unsecured - Fixed Maturity with Call - Bearer
	DTVTFB	Debts - Medium-Terms Notes - Variable - Government/Treasury Guaranteed - Fixed Maturity - Bearer
	DTVUFB	Debts - Medium-Terms Notes - Variable - Unsecured/Unsecured - Fixed Maturity - Bearer
	DTVUGB	Debts - Medium-Terms Notes - Variable - Unsecured/Unsecured - Fixed Maturity with Call - Bearer
	DTXXXX	Debts - Medium-Terms Notes
	DWXXXX	Debts - Bonds with Warrants Attached
	DYXXXX	Debts - Money Market Instruments
	EMXXXB	Equities - Others - Bearer
	EMXXXR	Equities - Others - Registered
	EPNUFB	Equities - Preferred Shares - Non-Voting - Free - Fixed Rate Income - Bearer
	EPNUXB	Equities - Preferred Shares - Non-Voting - Free - Bearer
	EPXXXX	Equities - Preferred Shares

Table 16 CFICode – technical implementation in FeedOS (Continued)

Component	Value	Description
	ESVTFR	Equities - Shares - Voting - Redeemable/Extendible - Fixed Rate Income - registered
	ESVUFB	Equities - Shares - Voting - Free - Fully Paid - Bearer
	ESVUFR	Equities - Shares - Voting - Free - Fully Paid - Registered
	ESVUFZ	Equities - Shares - Voting - Free - Fully Paid - Bearer Depository Receipt
	ESVXOR	Equities - Shares - Voting - Undefined -
	ESXXXX	Equities - Shares
	EUOISB	Equities - Units - Open-End - Income Funds - Securities - Bearer
	EUXXXB	Equities - Units - Bearer
	EUXXXX	Equities - Units
Possible Values	EXXXXX	Equities
	FXXXXX	Futures
	MRIXXX	Other - Referential Instruments - Indices
	MRTXXX	Other - Referential Instruments
	MXXXXX	Other
	OXAXXX	Options - American
	OXEXXX	Options - European
	RSXXXB	Rights - Subscription Rights - Bearer
	RWCNCB	Rights - Warrants - Currencies - Naked Warrants - Call - Bearer
	RWCNPB	Rights - Warrants - Currencies - Naked Warrants - Put - Bearer
	RWINCB	Rights - Warrants - Indices - Naked Warrants - Call - Bearer
	RWINPB	Rights - Warrants - Indices - Naked Warrants - Put - Bearer
	RWMNCB	Rights - Warrants - Other - Naked Warrants - Call - Bearer
	RWSNCB	Rights - Warrants - Stock-Equities - Naked Warrants - Call - Bearer
	RWSNPB	Rights - Warrants - Stock-Equities - Naked Warrants - Put - Bearer
	RWSTCB	Rights - Warrants - Stock-Equities - Traditional Warrants - Call - Bearer
	RWSTPB	Rights - Warrants - Stock-Equities - Traditional Warrants - Put - Bearer
	RWTNCB	Rights - Warrants - Commodities - Naked Warrants - Call - Bearer
	RWTNPB	Rights - Warrants - Commodities - Naked Warrants - Put - Bearer
	RWXXXX	Rights - Warrants
	TIXXXX	Referential Instruments - Indices

The example below shows the possible combinations of SecurityTypes and CFICodes, before and after the migration day (please note that additional combinations may be available, as the exchange could introduce new instruments):

BEFORE Q1 2015

```
{ XWBO GO DBFSCB }
{ XWBO GO DBFSDB }
{ XWBO GO DBFSFB }
{ XWBO GO DBFSGB }
{ XWBO GO DBFTAB }
{ XWBO GO DBFTBB }
{ XWBO GO DBFTFB }
{ XWBO GO DBFTGB }
{ XWBO GO DBFTTB }
{ XWBO GO DBFUAB }
{ XWBO GO DBFUBB }
{ XWBO GO DBFUCB }
{ XWBO GO DBFUFB }
{ XWBO GO DBFUGB }
{ XWBO GO DBFUGR }
{ XWBO GO DBFUQB }
{ XWBO GO DBVGFB }
{ XWBO GO DBVGQB }
{ XWBO GO DBVSCB }
{ XWBO GO DBVSFB }
{ XWBO GO DBVSGB }
{ XWBO GO DBVTAB }
{ XWBO GO DBVTBB }
{ XWBO GO DBVTFB }
{ XWBO GO DBVTGB }
{ XWBO GO DBVTLB }
{ XWBO GO DBVUAB }
{ XWBO GO DBVUBB }
{ XWBO GO DBVUCB }
{ XWBO GO DBVUFB }
{ XWBO GO DBVUGB }
{ XWBO GO DBVUQB }
{ XWBO GO DBVUQR }
{ XWBO GO DBXUFB }
{ XWBO GO DBXXXX }
{ XWBO GO DBZSFB }
{ XWBO GO DBZSGB }
{ XWBO GO DBZTFB }
{ XWBO GO DBZTGB }
{ XWBO GO DBZUAB }
{ XWBO GO DBZUDB }
{ XWBO GO DBZUFB }
{ XWBO GO DBZUGB }
{ XWBO GO DCFGAB }
{ XWBO GO DCFGFB }
{ XWBO GO DCFGGB }
{ XWBO GO DCFTFB }
{ XWBO GO DCFTGB }
{ XWBO GO DCFUCB }
{ XWBO GO DCFUDB }
{ XWBO GO DCFUFB }
{ XWBO GO DCFUGB }
{ XWBO GO DCVGFB }
{ XWBO GO DCVGGB }
```

AFTER Q1 2015

```
{ XWBO CS EMXXXB }
{ XWBO CS EMXXXR }
{ XWBO CS ESVTFR }
{ XWBO CS ESUVFB }
{ XWBO CS ESUVFZ }
{ XWBO CS ESVMOR }
{ XWBO CS ESXXXX }
{ XWBO CS EXXXXX }
{ XWBO ETF EUXXXX }
{ XWBO GO DBFSCB }
{ XWBO GO DBFSDB }
{ XWBO GO DBFSFB }
{ XWBO GO DBFSGB }
{ XWBO GO DBFTAB }
{ XWBO GO DBFTBB }
{ XWBO GO DBFTFB }
{ XWBO GO DBFTGB }
{ XWBO GO DBFTTB }
{ XWBO GO DBFUAB }
{ XWBO GO DBFUBB }
{ XWBO GO DBFUCB }
{ XWBO GO DBFUFB }
{ XWBO GO DBFUGB }
{ XWBO GO DBFUGR }
{ XWBO GO DBFUQB }
{ XWBO GO DBVGFB }
{ XWBO GO DBVGQB }
{ XWBO GO DBVSCB }
{ XWBO GO DBVSFB }
{ XWBO GO DBVSGB }
{ XWBO GO DBVTAB }
{ XWBO GO DBVTBB }
{ XWBO GO DBVTFB }
{ XWBO GO DBVTGB }
{ XWBO GO DBVTLB }
{ XWBO GO DBVUAB }
{ XWBO GO DBVUBB }
{ XWBO GO DBVUCB }
{ XWBO GO DBVUFB }
{ XWBO GO DBVUGB }
{ XWBO GO DBVUQB }
{ XWBO GO DBVUQR }
{ XWBO GO DBXUFB }
{ XWBO GO DBXXXX }
{ XWBO GO DBZSFB }
{ XWBO GO DBZSGB }
{ XWBO GO DBZTFB }
{ XWBO GO DBZTGB }
{ XWBO GO DBZUAB }
{ XWBO GO DBZUDB }
{ XWBO GO DBZUFB }
{ XWBO GO DBZUGB }
{ XWBO GO DBZUQB }
{ XWBO GO DCFGAB }
```

(see next page)

BEFORE Q1 2015

```

{ XWBO GO DCVSFB }
{ XWBO GO DCVTFB }
{ XWBO GO DCVUFB }
{ XWBO GO DCVUGB }
{ XWBO GO DCXXXX }
{ XWBO GO DCZUQB }
{ XWBO GO DMXXXX }
{ XWBO GO DTFUGB }
{ XWBO GO DTVTFB }
{ XWBO GO DTVUFB }
{ XWBO GO DTVUGB }
{ XWBO GO DTXXXX }
{ XWBO GO DWXXXX }
{ XWBO GO DYXXXX }
{ XWBO GO EMXXXB }
{ XWBO NONE EMXXXB }
{ XWBO NONE EMXXXR }
{ XWBO NONE EPNUFB }
{ XWBO NONE EPNUXB }
{ XWBO NONE EPXXXX }
{ XWBO NONE ESVTFR }
{ XWBO NONE ESVUFB }
{ XWBO NONE ESVUFZ }
{ XWBO NONE ESVXOR }
{ XWBO NONE ESXXXX }
{ XWBO NONE EUOISB }
{ XWBO NONE EUXXXB }
{ XWBO NONE EUXXXX }
{ XWBO NONE EXXXXX }
{ XWBO NONE MRXXXX }
{ XWBO NONE RSXXXB }
{ XBUD ETF EUXXXX }
{ XBUD FUT FXXXXX }
{ XBUD GO DBXXXX }
{ XBUD NONE DBXXXX }
{ XBUD NONE EXXXXX }
{ XBUD NONE MRXXXX }
{ XBUD NONE MRTXXX }
{ XBUD OPT OXAXXX }
{ XBUD OPT OXEXXX }

```

AFTER Q1 2015

```

{ XWBO GO DCFGFB }
{ XWBO GO DCFGGB }
{ XWBO GO DCFTFB }
{ XWBO GO DCFTGB }
{ XWBO GO DCFUCB }
{ XWBO GO DCFUDB }
{ XWBO GO DCFUFB }
{ XWBO GO DCFUGB }
{ XWBO GO DCVGFB }
{ XWBO GO DCVGGB }
{ XWBO GO DCVSFB }
{ XWBO GO DCVTFB }
{ XWBO GO DCVUFB }
{ XWBO GO DCVUGB }
{ XWBO GO DCXXXX }
{ XWBO GO DCZUQB }
{ XWBO GO DMFUFB }
{ XWBO GO DMVUFB }
{ XWBO GO DMXXXX }
{ XWBO GO DMZUFB }
{ XWBO GO DMZUQB }
{ XWBO GO DTFUGB }
{ XWBO GO DTVTFB }
{ XWBO GO DTVUFB }
{ XWBO GO DTVUGB }
{ XWBO GO DTXXXX }
{ XWBO GO DWXXXX }
{ XWBO GO DYXXXX }
{ XWBO GO EMXXXB }
{ XWBO MF EUOISB }
{ XWBO MF EUXXXB }
{ XWBO MF EUXXXX }
{ XWBO NONE DBXXXX }
{ XWBO NONE ESVUFB }
{ XWBO NONE ESVUFZ }
{ XWBO NONE ESXXXX }
{ XWBO NONE EUXXXB }
{ XWBO NONE MRXXXX }
{ XWBO NONE RSXXXB }
{ XWBO PS EPNUFB }
{ XWBO PS EPNUXB }
{ XWBO PS EPXXXX }
{ XWBO WAR RWCNCB }
{ XWBO WAR RWCNPB }
{ XWBO WAR RWINCB }
{ XWBO WAR RWINPB }
{ XWBO WAR RWMNCB }
{ XWBO WAR RWSNCB }
{ XWBO WAR RWSNPB }
{ XWBO WAR RWSTCB }
{ XWBO WAR RWSTPB }
{ XWBO WAR RWTNCB }
{ XWBO WAR RWTNPB }
{ XWBO WAR RWXXXX }
{ XBUD CS EXXXXX }

```

(see next page)

BEFORE Q1 2015**AFTER Q1 2015**

```
{ XBUD CS      MXXXXX }
{ XBUD ETF     EUXXXX }
{ XBUD FUT     FXXXXX }
{ XBUD GO      DBXXXX }
{ XBUD NONE    DBXXXX }
{ XBUD NONE    EXXXXX }
{ XBUD NONE    FXXXXX }
{ XBUD NONE    MRXXXX }
{ XBUD NONE    MRTXXX }
{ XBUD OPT     OXXXXX }
{ XBUD OPT     OEXXXX }
{ XPRA CS      EXXXXX }
{ XPRA GO      DBXXXX }
{ XPRA NONE    DBXXXX }
{ XPRA NONE    MRXXXX }
{ XPRA NONE    TXXXXX }
{ XLJU CS      ESVUFB }
{ XLJU CS      ESVUFR }
{ XLJU GO      DBFGFR }
{ XLJU GO      DBFTFR }
{ XLJU GO      DBFUAB }
{ XLJU GO      DBFUFR }
{ XLJU GO      DBVTAR }
{ XLJU GO      DBVUGR }
{ XLJU NONE    MRXXXX }
```

(see next page)

Referential Data Sample

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

```
instr # 25/12970 = 52441770
  PriceCurrency      string{EUR}
  Symbol             string{AT0000A0XJ64}
  Issuer             string{81607}
  Description        string{JP Immo.I 3\,5% bes.Anl. 12-22}
  SecurityType       string{GO}
  FOSMarketId        XWBO
  CouponRate         float64{3.5}
  CouponPaymentDate  uint32{20151221}
  PriceType          uint8{1}
  CFICode            string{DBFSCB}
  RoundLot           float64{100000}
  SecuritySubType     string{bond}
  SecurityGroup       string{OLD}
  MarketSegmentID    string{C2CORP}
  MarketSegmentDesc  string{corporate standard sector}
  InternalCreationDate Timestamp{2014-03-24 07:45:28:949}
  InternalModificationDate Timestamp{2015-03-13 05:00:26:478}
  InternalSourceId    uint16{28}
  InternalEntitlementId VIR
  LocalCodeStr        string{8_XVIE_AT0000A0XJ64}
  ISIN               string{AT0000A0XJ64}
  PriceIncrement_static float64{0.01}
  MaturityYear        uint16{2022}
  MaturityMonth        uint8{12}
  MaturityDay         uint8{21}
  OperatingMIC         string{XWBO}
  SegmentMIC          string{XVIE}
  FaceValue           float64{100000}
```

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 ADH market data stream:

Table 17 Quotation tags added on the ADH market data stream

Tag Name	Numeric ID	Type
InternalDailyClosingPriceType	9155	Char

2.2.1. InternalDailyClosingPriceType

The values of the quotation tag **InternalDailyClosingPriceType** conveyed on the ADH market data stream are disseminated via FeedOS data stream in *Other Values* to indicate the type of the internal daily closing 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.

FeedOS implementation of the tag `InternalDailyClosingPriceType` is described in the table below (the values disseminated as of Q1 2015 are highlighted in green):

Table 18 `InternalDailyClosingPriceType` – technical implementation in QuantFEED®

Component	Value	Description
Tag Name	<code>InternalDailyClosingPriceType</code>	FeedOS tag name.
Numeric ID	9155	FeedOS unique ID disseminated on S&P Capital IQ Real-Time Solutions data stream. This is the numeric equivalent of the tag name.
Type	Char	Char data type.
Format	<i>[Internal Specific Value]</i>	An internal specific value , detailing the type of daily closing price, as described below.
Possible Values	0	Undefined
	a	Official Close – Explicit closing price value calculated and distributed by an exchange for the main trading session of a given trading day.
	b	Official Indicative – Exchange has provided an indicative price and marked it as indicative, however no trading activity is observed.
	c	Official Carry Over – Explicit Closing price value from a previous trading day carried forward by the exchange to the given trading day.
	d	Last Price – Final price disseminated by the exchange for the main trading session or dissemination period of a given trading day (for indices).
	e	Last Eligible Price – Execution price of the final trade (subject to trade qualifiers) accepted by the exchange for the main trading session of a given trading day.
	z	Manual – Price disseminated manually (in case of production correction).

Quotation Data Sample

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

```
InstrumentStatusL1
-- 112/30125
    BID: 22975      1500    @1
    ASK: 23051      400     @1
    LastPrice                float64{23000}
    LastTradeQty              float64{10}
    DailyHighPrice            float64{23000}
    DailyLowPrice             float64{22719}
    DailyTotalVolumeTraded    float64{49}
    DailyTotalAssetTraded     float64{1116041}
    LastTradePrice            float64{23000}
    LastTradeTimestamp         Timestamp{2015-05-14 08:51:26:240}
    InternalDailyOpenTimestamp Timestamp{2015-05-14 08:00:21:697}
    InternalDailyCloseTimestamp Timestamp{2015-05-13 16:20:04:265}
    InternalDailyHighTimestamp Timestamp{2015-05-14 08:51:26:326}
    InternalDailyLowTimestamp  Timestamp{2015-05-14 08:21:33:706}
    InternalPriceActivityTimestamp Timestamp{2015-05-14 10:33:55:555}
    TradingStatus              17=ReadyToTrade
    DailyOpeningPrice          float64{22719}
    PreviousDailyClosingPrice   float64{22506}
    PreviousBusinessDay         Timestamp{2015-05-13}
    CurrentBusinessDay          Timestamp{2015-05-14}
    InternalDailyClosingPriceType char{a}
    PriceActivityMarketTimestamp Timestamp{2015-05-14 10:33:55:240}
    MARKET_ADH_OrderbookStateCode string{6}
```

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>.